ISPOR Research Abstracts

Research Podium Presentations

Research Poster Presentations

RESEARCH PODIUM PRESENTATIONS - SESSION I

CANCER OUTCOMES RESEARCH STUDIES

CA1: ASOCIACIÓN SIGNIFICATIVA ENTRE LA ENFERMEDAD VOLUMINOSA CERCANA A CRANEO Y NEUROEJE Y LA INFILTRACIÓN SECUNDARIA A SISTEMA NERVIOSO CENTRAL EN PACIENTES CON LINFOMA DIFUSO DE CÉLULAS GRANDES B

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OBJECTIVOS: La infiltración al Sistema Nervioso Central (iSNC) en pacientes con linfoma difuso de células grandes-B (LDCG-B), deteriora la calidad de vida e incrementa la mortalidad. Algunos datos clínicos podrían ser de valor pronóstico para ello. El propósito del estudio fue identificar la asociación entre la presencia de enfermedad voluminosa (EV) con iSNCs. **METODOLOGÍAS:** Se integró una cohorte retrospectiva, entre 2010 y 2013, de pacientes con LDCG-B, del Hospital de Oncología, Centro Médico Nacional Siglo XXI, del IMSS. Se excluyeron pacientes con VIH/SIDA y linfoma primario de SNC. La iSNC se identificó con citología de líquido cefalorraquídeo y/o imagen de tomografía axial computada y/o resonancia magnética. La EV se definió como la presencia de masa tumoral igual o mayor a 10 cm o la presencia de masa tumoral mayor a un tercio del diámetro torácico a nivel de 5° cuerpo vertebral y la enfermedad cercana a cráneo y neuroeje (EVCCN) como la masa tumoral en estructuras cercanas al cráneo o neuroeje sin invasión al SNC. Se estimó la asociación de estas condiciones clínicas con la posterior iSNCs con Hazard Ratio (HR) mediante análisis de riesgos proporcionales de Cox. **RESULTADOS:** Se incluyeron 344 pacientes, con promedio de edad de 55 años, 42% hombres. El seguimiento fue de 21 meses promedio. Al momento del diagnóstico el 62% tuvieron etapa clínica III-IV, 63.4% tuvieron tumor en más sitios fuera de ganglio linfático (EE>2), 73.3% tuvieron Índice Pronóstico Internacional (IPI) desfavorable, 44% tuvieron EV y 22.1% EVCCN. El 11.6% desarrollaron iSNCs. La asociación con iSNCs fue un HR de 1.26 para EV, p=0.05; el IPI III-IV, 3.66, p=0.01; la EE>2, 2.53, p=0.02; la EC III-IV, 2.24, p=0.03; la EVCCN fue de 3.06, p=0.002 **CONCLUSIONES:** El Índice Pronóstico Internacional desfavorable y la EVCCN pronostican asociación con iSNCs en pacientes con LDCG-B.

CA2: ACCESS TO THE PROCEDURE CARE OF COLORECTAL CANCER IN BRAZILIAN PUBLIC HEALTH SYSTEM: USE OF DIAGNOSIS RESOURCES IN SÃO PAULO STATE

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OBJECTIVES: Colorectal cancer is one of the most common cancers in Brazil. It was estimated 11,560 new cases in the state of São Paulo in 2014. 67% of the new cases rely on public health system (SUS) to be treated. In the early stages, the primary treatment option is surgery. For more advanced cases the chosen strategy is surgery combined with adjuvant therapies. Evaluate the population access to surgical treatment of Colorectal Cancer in SUS in 2013 and compare the local hospitals' productivity, length of stay and mortality rates of the rectosigmoidectomy procedure with international literature references. **METHODS:** DATASUS database review of the surgical production per institution in 2013. There was also performed a pearson correlation test the hypothesis the higher the annual surgical volume, lower the in-hospital mortality rate, and a Fisher's exact test to verify if hospitals volume has association with length of stay. Significance level was p<0.05. **RESULTS:** 65 (89%) public oncology hospitals performed colorectal surgery in 2013. Approximately one third of the expected demand, 2,574 surgical procedures were performed in the period. 62 (85%) public oncology hospitals performed rectosigmoidectomy in 2013. Among the hospitals, 19.4% achieved a productivity of 24 surgeries per year with an average of 52 procedures. There is observed a moderate negative correlation (r = -0.51, p=0.007) between annual surgical volume and mortality rate, but no association was found analyzing the surgical volume and length of stay. **CONCLUSIONS:** There is a limitation in the access to Colorectal Cancer treatment in the region. The possible barriers are low productivity and limited budget. Higher annual surgical volume seems to be associated with lower in-hospital mortality rates, but no with length of stay.

CA3: PROFILE OF COLORECTAL CANCER TREATMENT WITHIN THE BRAZILIAN PUBLIC SETTING: ANALYSIS OF DATASUS AQ DATABASE

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OBJECTIVES: To analyze the treatment profile in metastatic colorectal cancer (CRC) at the light of regimen type at a national and regional level in the Brazilian public setting. **METHODS:** We used the SUS database available from DataSUS FTP and standardized the oncology treatment fields available in the specific oncology database (DataSUS AQ). Standardization included harmonization of different names used for the same drug name (i.e., cetuximab, cetux, cetukimabe and ketuxim), including generic and brand names. We also converted acronyms use in NCCN and MOC Brazil guidelines to the generic name (i.e.: fluoracil and 5FU; irinotecan and CPT-11). We created a new standardized table with additional fields (regimen name, drugs used, adjuvant therapy and a high/low cost flag). For this analysis we filtered by APAC (High complexity procedures approval) code for colorectal cancer (CRC) from 2012 to 2014. All blank or not identified regimens were excluded from this analysis. In total 50,729 CRC patients were contemplated. **RESULTS:** At a national level 99.3% of patients have received any kind of chemotherapy; the most frequent among those was FOLFOX (38.2%), followed by FL (27.1%) and capecitabine (19.2%). Within all 5-FU/Folinic Acid (FL) based regimens (66.5%), FL monotherapy represent 40.7%, oxiliplatin combination 57.7% and irinotecan combination 14.8%. Monoclonal antibodies (MABs) were received by 1.3% of patients of those 52.5% cetuximab and 49.1% bevacizumab. Chemotherapy regimens showed a similar distribution by region than at

national level. FL had a range of 54.2% to 77.9% among all regions. MABs based regimens represent 2.0% of patients in SE in contrast to 0.3% in the center west. **CONCLUSIONS:** This analysis showed a higher use of chemotherapy regimens with similar distribution across the country. When looking at high cost regimens such as MABs, the distribution depends on institution or state level willingness to afford non reimbursed drugs.

CA4: COSTO DE CÁNCER DE COLON AVANZADO EN LOS ESTABLECIMIENTOS HOSPITALARIOS DEL PERÚ

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OBJECTIVOS: Estimar los costos del Cáncer de Colon avanzado (CCA) en los establecimientos hospitalarios del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con CCA afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de CCA es de 501 personas para el año 2014 (Incidencia de CCA en hombres: 5.5 x 100,000 y de CCA en mujeres: 3.2 x 100,000). El costo total para CCA es de 38,350,462 dólares correspondiendo a CCA localmente avanzado: 3,311,198 dólares y para CCA metastásico: 35,039,263 dólares. El costo total correspondiente a diagnóstico es de 265,009 dólares (0.7%), tratamiento 37,219,767 dólares (97.1%) y para seguimiento 865,686 dólares (2.3.%). El costo fijo correspondió a 1,733,337 dólares (4.5%) y el costo variable a 36,617,125 dólares (95.5%).**CONCLUSIONES:** El costo anual total para Cáncer de Colon avanzado en el Perú se estimó en 38,350,462 dólares. Este monto representa el 20.7% del presupuesto anual en el programa presupuestal de prevención y control del cáncer del país.

COST-EFFECTIVENESS STUDIES

CE1: COST-EFFECTIVENESS ANALYSIS FOR CERVICAL CANCER SCREENING USING HPV TESTS IN CHILE

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OBJECTIVES: The aim of this study is to estimate the cost-effectiveness of cervical cancer primary screening with HPV PCR tests in Chile. **METHODS:** A Markov model captured the outcomes of 1,000 non-hysterectomized women ages 30 years and older who transitioned annually across possible health states and were screened over a 40-year period in Chile. This model was used to compare three strategies: (1) cytology alone (2) Pooled HPV with reflex cytology (3) HPV with 16/18 genotyping and reflex cytology, from a payer's perspective. The one-way and probabilistic sensitivity analyses were performed. Additionally, the screening and cancer treatment costs were calculated from FONASA (Fondo Nacional de Salud) public data, reported in 2014, converted into US dollars (USD) and discounted at an annual rate of 3%. **RESULTS:** The cost-effectiveness model suggested that the strategy (3) is cost-saving. When comparing the strategy (3) to strategy (1) the results presented a saving of $23.00 per woman with an increase of 0,009 and 0,029 in Life Years Gained and QALY, respectively. Additionally, this new strategy results in earlier detection of clinically relevant high-grade CIN (Cervical Intraepithelial Neoplasia) at the initial visits providing the efficient use of healthcare resources in Chile. **CONCLUSIONS:** The current analysis indicated that the HPV with 16/18 genotyping test is a cost-saving approach for primary cervical screening in women aged ≥30 years. Furthermore, decision makers should evaluate the incorporation of this new technology in the Chilean healthcare system.

CE2: EVALUACIÓN DEL COSTO-EFECTIVIDAD Y COSTO-UTILIDAD DEL USO DE RIVAROXABÁN EN PACIENTES CON FIBRILACIÓN AURICULAR NO VALVULAR FRENTE A WARFARINA EN EL CONTEXTO ECUATORIANO

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OBJECTIVOS: estimar la costo-efectividad y costo-utilidad del uso de rivaroxabán frente a warfarina en pacientes con fibrilación auricular no valvular con labilidad o variabilidad en respuesta clínica, para Ecuador.**METODOLOGÍAS:** se desarrolló un modelo de Markov que simula la historia natural de pacientes con fibrilación auricular no valvular, que demuestran labilidad o variabilidad en lograr un International Normalized Ratio terapéutico, con edad promedio de 60 años, bajo ciclos trimestrales, en un horizonte temporal de 30 años y con una tasa de descuento del 5%. Los parámetros clínicos fueron obtenidos de los estudios cabeza a cabeza consultados y de un análisis de riesgo frente a labilidad en la respuesta por warfarina. Los costos, expresados en dólares, fueron obtenidos de la secretaría técnica de fijación y revisión de precios de medicamentos de Ecuador. Los desenlaces analizados fueron los años de vida salvados, años de vida ajustados por calidad y costos totales. Además, se realizó un análisis de Montecarlo bajo 1000 iteraciones. **RESULTADOS:** la media de años de vida y años de vida ajustados por calidad de los pacientes tratados con rivaroxabán fue de 11,86 y 9,01 años respectivamente, con un costo de $9.331 dólares, mientras que para warfarina se estimó una media de 11,32 y 8,57 años, con un costo de $6.377 dólares. Así, se estima una razón de costo efectividad incremental para años de vida y años de vida ajustados por calidad, de $5.432 y $6.586. Las dos razones se encuentran por debajo del umbral utilizado de tres PIB per cápita. Bajo el análisis de sensibilidad el 95% de las iteraciones son costo-efectivas. **CONCLUSIONES:** el rivaroxabán sería una tecnología

costo-efectiva y costo-útil en pacientes con fibrilación auricular no valvular lábil frente al riesgo de desarrollo de eventos cerebrovascular y/o infarto de miocardio, y para las condiciones analizadas.

CE3: PROJECTED ECONOMIC IMPACT OF INCREASED USE OF BIOLOGIC TREATMENTS FOR RHEUMATOID ARTHRITIS IN ARGENTINA, COLOMBIA, AND MEXICO OVER 10 YEARS

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OBJECTIVES: To project the economic impact of expanding biologics use for rheumatoid arthritis (RA) in Latin America over 10 years. **METHODS:** The impact on costs of expanding biologics use for RA therapy during 2012–2022 was modeled from a societal perspective. The model incorporated current and projected changes in medical (inpatient and outpatient services), indirect (productivity loss), and drug costs; population size; gross domestic product; RA prevalence; and treat-to-target (T2T) use. Costs (adjusted to 2012) were compared in 2 scenarios: expanded biologics use (estimated annual rate of increase 5.6%, 12.7%, and 3.9% in Argentina, Colombia, and Mexico, respectively) vs non-expanded biologics use (no increase from 2012 levels). The expanded-use scenario incorporated additional drug costs and benefits (medical and indirect cost reduction) attributed to expanded biologics use. Average annual per-patient costs of RA therapy and cost offsets based on biologics use and T2T recommendations were aggregated with base annual medical and indirect costs to estimate total cost per patient. Total per-country annual costs were estimated using population size and RA prevalence. Sensitivity analyses varying model inputs (RA prevalence, T2T use, biologics use) assessed robustness of results. **RESULTS:** Increased biologics use was associated with slower annual cost growth vs non-expanded use; projected per-patient 2022 costs were ARS$60,976 vs ARS$63,808 in Argentina; COP$13.11 million vs COP$14.12 million in Colombia; and MXN$66,917 vs MXN$69,127 in Mexico. Differences were driven by greater medical and indirect cost offsets with expanded use (eg, COP$0.810 million vs COP$0.245 million [medical] and COP$2.042 million vs COP$0.618 million [indirect]). Expanded biologics use resulted in 10-year cumulative net cost savings of ARS$2.351 billion (Argentina), COP$728.577 billion (Colombia), and MXN$18.02 billion (Mexico). **CONCLUSIONS:** Increased biologics use is estimated to substantially reduce medical and indirect costs, which offsets the increase in medication costs, leading to slower growth in total RA costs over time.

CE4: EVALUACIÓN COSTO-UTILIDAD DE DOS ALTERNATIVAS DE VACUNACIÓN PARA EL VIRUS DEL PAPILOMA HUMANO (VPH) EN LA PREVENCIÓN DEL CANCER CERVICAL UTERINO

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OBJECTIVOS: determinar la relación de costo-utilidad (CU) de la vacunación contra el virus del papiloma humano (VPH) y el tamiz de lesiones cervicales, frente a un programa de tamiz solo. **METODOLOGÍAS:**empleamos un modelo de Markov, en el que se siguió una cohorte hipotética de 100 000 niñas de diez años de edad, con un horizonte temporal de 70 años. Se consideraron tres alternativas de prevención para el cáncer de cuello uterino (CCU) y verrugas anogenitales: tamiz, tamiz + vacuna bivalente, y tamiz + vacuna cuadrivalente. Se obtuvieron los costos al año 2013 en dólar pareado a la región (US$p) en base a las Guías de Atención del Ministerio de Salud (MINSA), y la opinión de expertos bajo la metodología DELPHI. Empleamos la perspectiva del MINSA y aplicamos una tasa de descuento del 3% a los costos y utilidades. Utilizamos el software TreeAge Pro, módulo Healthcare, v.2009. **RESULTADOS:** la vacunación contra el VPH y tamiz es una estrategia muy CU a una voluntad de pago de US$p 9 000. En el análisis determinístico la vacuna bivalente es marginalmente más CU que la vacuna cuadrivalente (US$p 22,10 frente a US$p 25,94 por año de vida ajustado a calidad). Sin embargo, en el análisis probabilístico observamos que ambas intervenciones se superponen, con una tendencia de la vacuna cuadrivalente a ser más CU en el 55% de veces, mientras que en el 29% dominó a la vacuna bivalente. El modelo fue especialmente sensible a variaciones de la cobertura y en la prevalencia de infección persistente por genotipos oncológicos no incluidos en la vacuna. **CONCLUSIONES:** la vacunación contra el VPH y tamiz es una estrategia muy costo-útil a una voluntad de pago de US$p 9 000. La diferencia entre ambas vacunas carece de robustez probabilística y pueden considerarse intercambiables desde la perspectiva CU.

INFECTIOUS DISEASE STUDIES

IN1: ANÁLISIS DE COSTO-UTILIDAD DE PCV13 VERSUS PPSV23 EN ADULTOS DE 65 AÑOS Y MÁS

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OBJECTIVOS: las infecciones por neumococo son un problema de salud importante en los adultos mayores. Para la prevención de este tipo de infecciones en adultos ≥65 años, existen en Chile 2 vacunas la PPSV23 y la PCV13. El objetivo de este estudio es determinar el costo efectividad incremental (CEI) de PCV13 en comparación a PPSV23 en adultos ≥65 años en Chile, considerando una cobertura de 90%. **METODOLOGÍAS:** se realizó un estudio de costo/utilidad usando un modelo de Markov. La perspectiva del análisis fue la del Sistema Público de Salud. Los costos fueron medidos en pesos y las utilidades en años de vida ajustados por calidad (AVACs). Las utilidades y la información epidemiológica relevante para el modelo fueron obtenidas de la literatura nacional e internacional. Las efectividades se tomaron de la literatura para PPSV23 y del ensayo clínico CAPiTA para PCV13. Los costos fueron obtenidos del seguro público de salud (FONASA) y se midieron tanto los costos directos como indirectos. El horizonte de tiempo del

análisis fue 10 años con una tasa de descuento de 3%. **RESULTADOS:** los costos totales estimados para los 10 años del estudio y para la población de 1.659.670 personas, fueron: $1.215.905.908 para la PPSV23 y $1.196.642.347 para la PCV13 y los AVACs fueron: 11.479.124 para PPSV23 y 11.484.554 para PCV13. El CEI fue dominante a favor de PCV13, este resultado se mantuvo con el análisis de sensibilidad realizado. Con un programa de vacunación usando PCV13 se prevendrían 5.348 neumonías hospitalizadas, 3.182 neumonías ambulatorias y 976 muerte debidas a infección por neumococo comparado con PPSV23. **CONCLUSIONES:** un programa de vacunación con PCV13 es más efectivo y menos costoso que uno con PPSV23 y reduciría la morbilidad y mortalidad debida a la infección. Los resultados fueron robustos, y la conclusión no varía con el análisis de sensibilidad.

IN2: METHODOLOGICAL CHANGES IN BURDEN OF INFECTIOUS DISEASE ESTIMATION: THE CASE OF PNEUMOCOCCAL INFECTION IN COLOMBIA

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OBJECTIVES: The disability adjusted life year (DALY) is the most widely used estimator of burden of disease, both for international comparisons or focused on specific diseases. The most recent Global Burden of Disease study introduced changes to traditional methodology. Infectious diseases are still a relevant source of preventable DALY, particularly in low- and middle-income countries. Our objective was to analyze differences in disease-specific burden of disease estimation, using local Colombian data, on pneumococcal diseases. **METHODS:** We performed DALY estimations using both the traditional methodology and the new one, which involves differences in life expectancy tables, discount rates, age-group weights and disability weights. We obtained Colombian data on incidence and mortality by pneumococcal infections from local registries or, when absent, from a literature review focused on South American information, and analyzed observed differences in the estimation. **RESULTS:** Traditional estimations yielded a total of 119,120 DALYs. Most of them were produced by pneumonia; 92% were years of life lost (YLL). The greatest concentration of DALYs was in children and elderly. New estimation yielded 279,603 DALY. Pneumonia was the main source and YLL representing 97%. There was a 135% increase in total DALYs with the new methodology. YLL were greatly increased while years lost to disability (YLD) had a small decrease. Pneumonia and bacteremia had similar behavior to total data. Meningitis had a much greater proportion of YLD which increased with new methodology. **CONCLUSIONS:** The same data yield significantly different results with the new methodology. DALY and YLL show a predictable increase attributable to the longer lifespans used and the absence of discount rate and age weighting. The only increase in YLD was seen in meningitis, with its long-term disability. It is important to understand the new DALY methodology when comparing historical data or prioritizing resource allocation.

IN3: ESTIMATING THE SUPPLY AND DEMAND OF BUTANTAN DENGUE VACCINE IN BRAZIL

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OBJECTIVES: To estimate the demand, implementation costs, and economic impact of Butantan's one-dose tetravalent dengue vaccine in Brazil. **METHODS:** We modeled the supply and demand of dengue vaccine nationally and for 6 key states using an existing strategic demand forecasting model. Input parameters on disease burden, vaccine product and pricing, production capacity, introduction strategies, and implementation costs were derived from local Brazilian stakeholders. Country-specific epidemiological data were obtained from disease reporting systems. Algorithms were developed to model 30 year dengue vaccine demand, total implementation cost, and vaccine impact using different age group introduction scenarios. Brazil's highest dengue burden is among adults 19-46, and strategies targeting adults were modeled with the traditional child population. **RESULTS:** Initial strategies targeting all ages or ≥15 year olds exceeded capacity and were considered not feasible. The demand for all strategies was below capacity for all scenarios, but by year 2048, the demand including boosters exceeds capacity for adult scenarios except for ages 19-31 (86.73M) and 31-46 (117.06M). At $5 per dose, the average annual total cost of introduction ranged from $21.05-$322.21M in the first 10 years and $52.58-844.13M in the last 10 years. The most affordable scenario is children 1-2 years, but this scenario had little impact on the disease burden (34% reduction in last 10 years). The combination scenario (staggered vaccine introduction for 2-46 year olds for 5 years followed by 1-2 year olds) has the greatest impact with 90% and 79% reduction in cases and deaths respectively, and 84% annual treatment cost savings.**CONCLUSIONS:** Vaccinating adults followed by children yields the greatest vaccine impact. Vaccine price, introduction strategies, age, and production capacity are major drivers of the demand and require consideration when deciding vaccine introduction. Dengue vaccine has the potential to reduce cases and associated costs substantially based on various introduction scenarios.

IN4: ECONOMIC COSTS OF BACTERIAL MENINGITIS: A SYSTEMATIC REVIEW

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OBJECTIVES: A systematic review was used to assess economic costs of bacterial meningitis. **METHODS:** PubMed, Scopus and NHS-EED were searched to identify eligible papers. Economic evaluations that cost bacterial meningitis cases were selected. Reported direct and indirect costs were converted to 2012 international dollars and reported in ranges (minimum and maximum). **RESULTS:** We identified 621 non-duplicated articles. 118 papers were selected for full-text revision. 25 studies accomplished the inclusion criteria and

were carried out in 27 countries. Most studies were undertaken in high-income countries (n=17). Only two studies took place in low income countries. Minimum and maximum laboratory mean costs were found in Burkina Faso (I$ 6) and Chile (I$ 1,604), respectively. Regarding to medication costs, the mean minimal cost was I$ 90 (Kenia) and the maximal I$ 1,284 (Rusia). Chile recorded the higher hospital cost of stay (I$ 9,144) and Burkina Faso the lower (I$ 107). Out-of-pocket health expenditures were estimated only in one study (Senegal, I$ 2,444). Among high income countries studies, the higher and lower total costs were reported in the United States and Suiza (I$151,449 – I$3,804). **CONCLUSIONS:** A large cost variability was found in the included studies. High-income countries economic costs were superior versus low-income countries costs. Even though Subsaharian countries has a high bacterial meningitis incidence, only three studies were undertaken in this area.

MEDICAL DEVICE & DIAGNOSTIC RESEARCH STUDIES

MD1: EVALUACIÓN ECONÓMICA DEL CARDIO-DESFIBRILADOR IMPLANTABLE COMPARADO CON LA TERAPIA FARMACOLÓGICA OPTIMA PARA EL TRATAMIENTO DE LOS PACIENTES CON FALLA CARDIACA EN COLOMBIA

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OBJECTIVOS: determinar, desde la perspectiva del sistema de salud colombiano, la relación de costo efectividad del uso de un CDI en comparación con no hacerlo, para evitar la muerte súbita en pacientes con cardiomiopatía isquémica o no isquémica, FE menor al 35%, DSVI y estadio NYHA II-III. **METODOLOGÍAS:** se desarrolló un modelo de Markov que incluia costos, efectividad, calidad de vida y supervivencia para un horizonte de base de 10 años. Las probabilidades de transición se extrajeron de estudios identificados en la literatura. La valoración de los recursos se realizó mediante consultas a fabricantes del dispositivo, a manuales tarifarios y al sistema nacional de información de medicamentos. Se realizaron análisis de sensibilidad probabilísticos y determinísticos. **RESULTADOS:** en el caso base, considerando conjuntamente pacientes isquémicos y no isquémicos, el CDI en comparación con la TFO reporta una RICE de $30.345.73 por AVAC. En el análisis de subgrupos, para los pacientes isquémicos la RICE es de $33.412.184 por AVAC, en los no isquémicos es de $47.030.266 por AVAC, y para pacientes con resultado positivo de un estudio electrofisiológico es de $19.558.355 por AVAC. Considerando una disposición a pagar de tres veces el PIB per cápita del 2013 ($45.026.378), la probabilidad de que el CDI sea costo efectivo es del 97,5%. **CONCLUSIONES:** El uso de un CDI para prevenir la muerte súbita en pacientes con FC es una estrategia costo efectiva para el sistema de salud colombiano, en especial para el subgrupo de pacientes isquémicos y para los pacientes con resultado positivo de un estudio electrofisiológico. En el análisis para los pacientes no isquémicos la costo efectividad depende del escenario escogido, superando algunas veces el umbral y otras no. En general, los resultados son sensibles a cambios en variables como el horizonte temporal, las probabilidades de muerte y el precio del CDI.

MD2: MEDICAL DEVICES – FROM LICENSING TO COVERAGE: HIGHLIGHTS FROM ARGENTINA, BRAZIL, COLOMBIA, AND MEXICO

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OBJECTIVES: To assess, describe and compare the requirements and pathways of medical devices from licensing to coverage in four Latin American countries (LAC) health systems. **METHODS:** We conducted a literature search (February 2015) on Pubmed, Lilacs and Value in Health Regional Issues journal. We also searched specific websites of Health Technology Assessment (HTA) and regulatory agencies, ministries of health and health agencies; and a performed generic Internet search. We included all publications describing aspects related to regulation, coverage, medical technology innovation, and HTA and Economic Evaluation (EE) guidelines. We additionally interviewed key informants from all countries to gather information related to the aforementioned processes. We present here the literature search results. **RESULTS:** We included 60 studies out of 2190. Five percent of the publications analyzed the four countries jointly, 75% were from Brazil, 8.3% from Mexico, 5% from Colombia and 5.7% from LAC in general. Half of the studies described the role of the HTA and EE in decision-making and aspects or policies related to innovation (25% and 23.3%). Regarding the description of the coverage process, it was addressed in 13.3% of the studies; 10% of the publications focused on technovigilance; and also 10% on regulatory aspects. Remaining publications were methodological guidelines and general descriptions of the health systems and the role of medical devices. All countries had HTA and EE guidelines, although there did not include device specific recommendations. There is a spectrum of HTA formalization for technology incorporation after licensing, higher in Brazil and lower in Argentina **CONCLUSIONS:**There is scarce information on the processes and requirements to achieve coverage for medical devices in these countries. Processes differ, are in general not explicit, lack transparency, and usually replicate those of drugs not taking into account the specificities of medical devices.

MD3: STAPLED HAEMORRHOIDOPEXY TO TREAT HEMORRHOIDS GRADE III AND IV: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: Hemorrhoids are not life-threatening, but they can cause itching, bleeding and pain, worsening quality of life. Stapled

haemorrhoidopexy (SH) is a specially designed circular stapler used to cut out a strip of the tissue above the hemorrhoids in an area of the rectum that doesn't feel much pain. The operation helps to reduce the hemorrhoids and it also helps shrink the remaining hemorrhoids by reducing their blood supply and makes them less likely to extend out of the anus. The aim of this study was to review and analyze the evidence of SH. **METHODS:** The electronic databases PubMed, EMBASE, The Cochrane Central Register of Controlled Trials, Wiley and OVID, were reviewed. The date limit was set to February 10th of 2015. The studies included were, RCT, the intervention being SH, and the comparison, conventional surgical techniques (CST). The primary outcome was to evaluate the patient acceptability and the second outcome was to evaluate length of stay, pain and time to return to work, only English language was recovered. Quality was assessed with GRADE scale. Meta-analysis was conducted with RevMan 5.3 for patient acceptability and length of stay, by random effect. **RESULTS:** 65 records were identified in all databases described, 6 records met the inclusion criteria (n=1503) comparing the SH with CST with a mean follow-up of 15 months. Patient preference was higher in SH compared with CST (OR 1.51[1.03-2.2]; I2: 26%, p=0.03.) Length of Stay was significantly lower in SH group (MD -0.74[-1.27;-0.21]; I2: 96%, p<0.00001, n=1299). Adverse events were similar between strategies. SH offers less post-operative pain and fast return to work activities. **CONCLUSIONS:** SH is a safe and effective treatment to treat hemorrhoids grade III and IV, improve hospital efficiency and has higher patient acceptability.

MD4: COST EFFECTIVENESS OF DRUG COATED BALLOON VERSUS PERCUTANEOUS TRANSLUMINAL BALLOON ANGIOPLASTY IN THE TREATMENT OF PERIPHERAL ARTERIAL DISEASE IN LOWER LIMBS IN BRAZIL

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OBJECTIVES: Cost-Effectiveness analysis of Drug Coated Balloon (DCB) vs. Percutaneous Transluminal Balloon Angioplasty (PTA) in the treatment of Peripheral Arterial Disease in lower limbs from Public Healthcare System (SUS) in Brazil. **METHODS:** An analytical decision model was considered with Target Lesion Restenosis (TLR) Avoided and total cost at the end of two year period as endpoints. An Excel model was developed. Effectiveness data was taken from a pooled analysis and second revascularization procedures probabilities were taken with KOL criterion. A public Healthcare System (SUS) payer perspective was assumed. Total direct costs for reimbursement were taken from Tabnet/Datasus–2014. Because effectiveness and cost were taken as unique values at the end of the two years, discount rate was no applied. Sensitivity Univariate analysis was done for DEB vs. PTA. For the Probabilistic Sensitivity Analysis a Monte Carlo Simulation with 1000 iterations was done. **RESULTS:** TLR Avoided probability with DCB was 0,856 vs. 0,600 for PTA. DCB total cost was R$4.468 vs. R$3.737 for PTA. The ICER was R$2.856. In univariate sensitivity the ICER the total DCB cost was tested from -10% to +10%, obtaining ICER values that were from R$2.075 to R$3.637. In the Probabilistic Sensitivity analysis, it was a 24% probability for DCB to be dominant or cost-saving, and 98,3% of been under 3 GDP per Capita for Brazil. **CONCLUSIONS:** DCB showed a 98,3% probability of been cost-effectiveness when compared to PTA and a 24% probability of been cost-saving.

PRICING AND HEALTH SYSTEM STUDIES

PR1: TIERED-PRICING STRATEGIES: THE WAY FORWARD FOR DRUG ACCESS IN LATIN AMERICA?

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OBJECTIVES: International reference pricing and parallel trade, amongst other variables, have led the industry to commonly maintain drug prices in Latin America at comparable (and even higher) levels to these of Europe. Although the debate about appropriate thresholds for cost-effectiveness is still ongoing, high-cost innovative products often fail at demonstrating cost-effectiveness in the region. Recent examples have however emerged where companies aim at implement tiered-pricing/differential-pricing strategies to favor the cost-effectiveness profile and gain access to funding. This research aims at understanding the current and future trajectory of tiered-pricing as access strategy in Latin America. **METHODS:** Review pricing strategies of a select basket of innovative drugs in high prevalence (e.g., infection diseases) and low prevalence (e.g., orphan) diseases, providing a comparative analysis of prices between main European and Latin American markets. Identify key case studies of tiered-pricing strategies, assess factors influencing their implementation and analyze outcomes. Define challenges and opportunities for tiered-pricing strategies in Colombia, Mexico and Brazil. **RESULTS:** Differences in the applicability of tiered strategies were identified across markets, mainly depending on the disease area (specialty vs. primary care) and distribution channel (hospital vs. retail), rather than prevalence Additional factors such as the availability of special funding programs and the socio-economic status of individual patients (affordability) are key success/ failure factors Political and commercial risks are to be closely assessed for the implementation of tiered-pricing strategies **CONCLUSIONS:** Tiered-pricing strategies can represent a win-win situation for payers and manufacturers if implemented when particular conditions are met, allowing access to innovative drugs in markets where otherwise denied. The feasibility and success of these strategies is however to be assessed beyond the approval for access/ reimbursement in a particular market. Whereas payers in Latin America are likely to continue advocating for tiered-pricing, limitations for a widespread use of tiered-pricing as a tool for access in Latin America will remain.

PR2: COMPETITION AND STRATEGIC REGULATION IN THE ARGENTINE PHARMACEUTICAL MARKET: A COMPARATIVE STUDY OF SIX THERAPEUTIC CLASSES

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OBJECTIVES: To analyze how main determinants of competition in six therapeutic target groups -analgesics, tranquilizers, peptic ulcer treatment, cholesterol treatment, benign prostatic hypertrophy and ACE inhibitors- were affected by regulations and drug policies implemented at national level during the last decade in the pharmaceutical market in Argentina. **METHODS:** The database corresponds to the annual information on retail sales in the Argentine pharmaceutical sector generated by IMS for the period 2005-2012. The estimation strategy takes the form of econometric models of ordinary least squares with year fixed effects and robust standard errors. The dependent variables explain the market shares of each product/brand per therapeutic class, explained by prices, participant active principles, and a set of variables capturing product differentiation mechanisms implemented by pharmaceutical firms. Each therapeutic class' regression was exposed to a vector of variables capturing the structure of the regulatory framework. **RESULTS:** In general, prices do not show to be significant determinants of market shares, unlike factors associated with mechanisms of product differentiation do, proving they facilitate the development of brand loyalty and adherence, even with relatively higher prices. On the other hand, the inclusion of new active principles in the Compulsory Health Program (CHP) will act as a boost for priority prescriptions, while the production of generic medicines increases competition, reducing market shares. In addition, the impact of these policies rests heavily on the structure of competition in each therapeutic class. **CONCLUSIONS:** The main health policy recommendations suggest: the need to develop new areas of collaboration with the pharmaceutical sector, enhancing competition in markets with higher levels of concentration, facilitating the evaluation of policies on generic medicines, and successfully regularizing the structure of drugs and products available through the CHP.

PR3: POTENTIAL PUBLIC RESOURCE SAVINGS IN BRAZIL: THE SOMATROPIN CASE

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OBJECTIVES: Somatropin is provided in 4 and 12IU presentations by the Brazilian Unified Health System (SUS) for the treatment of Hypopituitarism (HP) and Turner Syndrome (TS). Other presentations are available in the market and are believed to provide a less costly treatment and/or less somatropin waste. **METHODS:** The registered medicines were obtained from the National Health Surveillance Agency (ANVISA) and their stability from package inserts. Monthly consumption and wastage analysis were estimated using the dose of somatropin for each disease and the average body weight of Minas Gerais State patients. Costs were estimated considering the Maximum Price of Sale to the Government from ANVISA. **RESULTS:** Seventeen presentations (seven brands) of somatropin are available in the market and those with 28 days stability are not available in SUS. In general, medicines provided by SUS showed higher prices per IU. Immediate-use somatropin (4IU) showed the highest wastage and the highest cost estimates for both diseases. For HP, somatropin wastage of 4 and 12IU presentations was lower than that of the others available in the market. Regarding costs, they emerged in the fifth position of lower average cost for children and in the first and fifth positions for minimum and maximum doses for adults, respectively. For TS, monthly somatropin wastage was of 2.08-2.65IU for 4IU (7-14 days stability), slightly lower than that of 12 to 18IU presentations. Medicines provided by SUS appeared in the ninth position of lower average cost. **CONCLUSIONS:** Medicines incorporated by SUS presented the highest IU prices among registered medicines. Less wastage with incorporated presentations did not translate into better costs results (presentations of 15, 16 and 18IU had lower or similar cost). The purchase of somatropin should be made allowing the participation of presentations of up to 18IU, with 7 to 28 days stability, and considering price per IU.

PR4: IMPACT OF MAJOR CHANGES TO THE BRAZILIAN HEALTH CARE SYSTEM UTILIZING THE HEAT MAPS PROJECT

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Objective: To describe and understand the effects of various changes to the Brazilian Healthcare System, including a new guideline to elaborate HTA studies for Medical Devices, governmental price regulations, and demographics. **Method:** The Heat Maps project provides information from 17 major health care systems around the world, including Brazil. The Heat Maps capture: an overview of the healthcare system settings, reimbursement, HTA bodies and evaluation, evidence requirements, procurement process, value perception, and key trends and opportunities. This data was gathered through a partnership between Pharmerit and Ethicon Inc. A targeted literature review was conducted to collect information regarding these topics. If gaps in the knowledge were identified after this review, interviews with local affiliates were conducted. **Results:**Through our methodology and analysis, the following results were identified. Brazil is growing and enjoys the largest economy and most attractive medical device market in Latin America growing 13.6% (CAGR) over the next decade. Health expenditure is valued at US$502 per capita. Brazil has 200 Million people in the public sector, and 51 Million of those also have private insurance. New laws promote the development and purchasing of national products. Both the public and private sectors are regulated by the Ministry of Health (MoH) and ANVISA for premarket regulatory approval. Pricing is negotiated through tenders and purchasing negotiation, and differ by region. At this time Medical Devices do not have price regulation, but in 2015 a working group was created by the MoH in order to evaluate and regulate medical devices' prices. HTA has grown rapidly leading to constrictions in adoption of new technologies and market access. New guidelines were prepared specifically for medical devices (HTA by CONITEC) in order to promote a better evaluation for medical devices.

BI1: COST REDUCTION FOR A HEALTH SYSTEM THROUGH DECREASING NUMBER OF ELIGIBLE PATIENTS FOR BIOLOGICAL THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS USING THE TREAT TO TARGET RECOMMENDATIONS

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OBJECTIVES: Biological therapy is a major therapeutic tool to prevent clinical and radiological progression of rheumatoid arthritis (RA), however due to the high cost of it is not possible to use extensively in Colombia. The aim of this study was to describe the reduction in Disease Activity Score 28 (DAS28) in patients with moderate-severe disease activity (MDA/SDA), by using strictly a Treat to Target (T2T) strategy for 24 and subsequently cost-savings obtained. **METHODS:** A descriptive cross-sectional study was performed. Records of patients with moderate or severe disease activity (MDA/SDA) were reviewed; patients were considered potential candidates for biologic therapies and were followed-up under T2T standards. The aim of the study was to look at what percentage of patients who were in MDA/SDA disease activity reached a remission/low disease activity (Rem/LDA) status. Descriptive epidemiology, the medians were analyzed using t-Student and disease activity was analyzed using Pearson´s statistics. Were analyzed cost-savings obtained through decreasing the number of eligible patients for biological therapy. **RESULTS:** 622 patients were included in this study, 453 (72.8%) women and 169 (27.2%) men. These patients came in moderate or severe disease activity with DAS28 3.5 in average; at 24 months with T2T strategy using only conventional DMARS 467 patients (75.1%) got remission/low disease activity status with a DAS28 2.6 in average. The costs of biological therapy finishing 2014 on average was 16.595 US dollars/year/patient, and for 467 patients amount in projected costs-savings of preventing use of biologics was approximately 5'824.849 US dollars/year, ranging between the cheaper biological and the most expensive (2'975.228 and 7'749.865 US dollars/year) respectively. **CONCLUSIONS:** The results of study showed that is possible to decrease disease activity and obtain a significant cost-reduction in RA by using only conventional DMARDs in a model with defined therapeutic goals like T2T and optimizing a multidisciplinary approach.

BI2: TREATMENT PATTERNS AND BUDGETARY IMPACT OF CHEMOTHERAPY DRUGS IN A BRAZILIAN PRIVATE HEALTH PLAN (PHP)

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OBJECTIVES: According to GLOBOSCAN 2012 and WHO, 14.1 million new cancer cases and 8.2 million deaths occurred worldwide in 2012. In Brazil, the incidence of the disease is also increasing as population ages, with 576,000 new cases of cancer expected in 2015. Despite the significant impact of disease and need for monitoring and prevention, epidemiological and economic data that would help decision markers to evaluate unmet needs are still scarce. This study aims to evaluate the epidemiological aspects; economic impact and treatment patterns in a private health insurance plan with approximately 150,000 lives. **METHODS:** We retrieved data from Evidências-Kantar Health private market administrative claims database from June 2012 to June 2013. After patient de-identification, data on diagnosis, type of drug, and line-of-treatment were collected. All ICDs and treatment patterns were reviewed by an oncologist. Health economist specialists priced the treatments (ex-factory price) in order to assess the budgetary impact. Only oncologic drug costs were considered – antiemetics, corticosteroids and equipment were not included). Exchange rate was 1USD=3.25BRL. **RESULTS:** A total of 150 new cases of cancer were retrieved from the database. Median age was 59.5years (3 – 89) and body surface 1.775 m2 (0.72 – 2.3). The five most prevalent cancers were breast (19%), colon (15%), prostate (11%), non-Hodgkin's lymphoma (7%) and lung neoplasm (5%). The budget impact for cancer treatments was USD 1,464,958, (most impacting diseases: USD436,908 for breast, USD428,90 for colorectal and USD177,131 for non-Hodgkin lymphoma). Considering the average cost per patient treated, kidney (USD27,970), colon (USD19,495) and brain cancer (USD17,809) were the most expensive ones. Treatment pattern will be described in details in tables. **CONCLUSIONS:** The increasing incidence of cancer and its costly treatments are significantly affecting the economic sustainability of the healthcare sector. This study maps the most prevalent and costly cancer treatments under a private insurance perspective in Brazil.

BI3: FINANCIAL IMPACT OF HOSPITAL EXPENDITURE IN CHRONIC DISEASES FOR SEGURO POPULAR

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OBJECTIVES: Estimate the expenditure in hospital services for cardio-vascular (CVD), malignant tumors (MT) and diabetes financed by Seguro Popular (SP) for 2004-2012 in order to evaluate its midterm financial sustainability. **METHODS:** Hospital costs for interventions financed by SP for year 2012. Related hospital discharges from the SAEH for 2004-2012. Multiplication of both data generated the cost per ICD-10. The product was then grouped by GBD. Total hospital expenditure for SP, obtained from SINAIS for 2004-2012, was distributed using the cost per GBD. Then the proportion of hospital expenditure related to CVD, MT and diabetes is estimated. **RESULTS:** Mexico is one of the countries with the highest prevalence of child and adult overweight and obesity (O&O). That situation imposes a great pressure into SP to face an increasing demand of health care for non-communicable chronic diseases (NCD) particularly diabetes, MT and CVD. The average annual hospital expenditure of these groups of diseases represents about USD$273.4 million in 2012 (9.7% of hospital expenditure). Malignant tumors that contributed the most were breast and cervical cancer with 90% of the total expenditure for this group. Acute myocardial infarction represents 66% of total expenditure for cardio-vascular. Under the status quo an increase of 65% in the cost of this group of diseases is expected for 2018. **CONCLUSIONS:** Findings show an increased

financial burden for SP generated by the selected NCD. The impact on the public budget that represents this level of hospital expenditure would threaten the sustainability of the SP if current trends hold. Given the demographic transition and level of O&O as risk factors for developing NCD in the coming years it is necessary to strengthen prevention and health promotion to reduce both new cases of NCD and complications in order to decrease their future impact on the SP budget.

BI4: HOSPITALIZATION COSTS OF TYPE 2 DIABETES MELLITUS (T2DM) PATIENTS IN A PUBLIC HOSPITAL IN BRAZIL

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OBJECTIVES: Diabetes is considered an outpatient care condition, manageable in the primary care setting, but which complications may lead to hospitalization. There is limited data on the costs of patients hospitalized due to diabetes in Brazil. We aimed to estimate the percentage of type-2 diabetes mellitus (T2DM) patients who were hospitalized and the mean cost per hospitalization within a public hospital in Brazil (SUS). **METHODS:**T2DM outpatients followed at the Hospital das Clínicas of Universidade Federal do Paraná (HC-UFPR) between 2011 and 2014 were eligible. Data from the last year of treatment were collected and validated within medical charts. We assessed demographics, hospitalization and cause, length and average costs per day of hospitalization. Exchange rate was 1.00USD = 3.21BRL. The study was approved by HC-UFPR IRB. **RESULTS:**A total of 728 patients with T2DM were evaluated, of which 38 (5.2%, 22 females and 17 males) were hospitalized due to eight different causes. Mean age was 64 years (44 to 84). Main reason for hospitalization was cardiovascular related problems (58.5%), followed by decompensated diabetes treatment (17.0%) and kidney problems (9.4%). Average daily cost ranged from 907BRL (~283USD) (Neurology Center) to 2218BRL (~691USD) (Intensive Cardiology Therapy Center). The amount spent on the Cardiology Center represented 27.5% (188,244BRL) (~58,643USD) of the total, followed by Intensive Cardiology Therapy Center with 18.1% (124,189BRL) (~38,688USD). Total hospital spending with 38 hospitalizations was 685,058BRL (~213,414USD) and mean length of hospitalization was 10 days (1 to 30 days). Mean cost per patient was 18,028BRL (~5,616USD). **CONCLUSIONS:** Hospitalized patients with T2DM represent a significant burden to healthcare payers. However, the amount spent by the hospital is not necessarily the same reimbursed by the Brazilian Public Healthcare System (SUS), which hinders the estimate of the burden for the system as a whole.

CARDIOVASCULAR DISEASE & DIABETES RESEARCH STUDIES

CV1: ASSOCIATION OF ADHERENCE STATUS AS MEASURED USING TWO SINGLE-ITEM PHYSICIAN-ADMINISTERED METHODS WITH CARDIOVASCULAR RISK IN PATIENTS TAKING ANTIHYPERTENSIVE MEDICATION

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OBJECTIVES: In patients with hypertension, non-adherence to prescribed treatment may contribute to a significant increase in cardiovascular risk. The aims of this study were (1) to examine if two single-item physician-administered adherence scales are predictive of cardiovascular risk and (2) to evaluate whether adherence to antihypertensive medications is associated with at least a one percent reduction in cardiovascular risk over 90 days. **METHODS:** Pooling data from seven observational studies, this analysis included 8,438 hypertensive patients taking valsartan. A ten-year cardiovascular risk (CVR) score was estimated following the risk scoring system proposed by the SCORE project in Europe. CVR score considered the following variables: age, total cholesterol, current smoking status, systolic blood pressure, and sex. At baseline and 90 days, physicians administered two single-item measures of adherence: the first item of the Basel Assessment of Adherence Scale (BAAS) and the Visual Analogue Scale (VAS). **RESULTS:** At 90 days, males (4,257) had a significantly higher CVR than females (4,091) ($p<0.001$). For BAAS-identified adherent patients, CVR decreased significantly by 2.6% from baseline to 90 days (p-value<0.001). For BAAS-identified non-adherent patients, a significant but smaller decrease in CVR of 1.3% was observed ($p<0.001$). For VAS-identified adherent patients, CVR decreased significantly by 4.4% from baseline to 90 days ($p<0.001$). However, a significant decrease of 4.3% ($p<0.001$) was also observed for VAS-identified non-adherent patients. **CONCLUSIONS:** Patients identified as adherent using the first item of the BAAS showed significantly improved 10-year cardiovascular risk scores after 90 days of treatment with valsartan, compared to patients who were identified as non-adherent. The VAS scale was not sufficiently sensitive to determine the effect of adherence on cardiovascular risk score.

CV2: APIXABAN IN PATIENTS WITH ATRIAL FIBRILLATION: PATIENT CHARACTERISTICS OF THE LATIN AMERICA COHORT FROM A MULTINATIONAL CLINICAL TRIAL

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OBJECTIVES: Patients with Atrial fibrillation (AF), have a five-fold increase in the risk of stroke. Treatment for AF include stroke prevention therapy. Vitamin K antagonists (VKAs) have shown to prevent stroke in AF patients. Apixaban, a novel oral direct factor Xa

inhibitor was studied in AF patients whom VKA therapy was unsuitable. Apixaban demonstrated clinical benefit in stroke or systemic embolism reduction without impacting the risk of major bleeding or intracranial hemorrhage. Patient characteristics of the Latin America (LA) cohort and overall population are presented. **METHODS:** Patients with AF at an increased risk for stroke and whom VKA therapy was unsuitable were randomized to receive apixaban (5 mg twice daily) or aspirin (81 to 324 mg) in a double blind trial. The study recruited from 36 countries from September 2007 through December 2009. Five countries were from LA: Argentina, Brazil, Chile, Colombia, and Mexico. Patient characteristics from the LA cohort, is presented relative to the overall trial population. **RESULTS:** Of 5599 patients in the trial, 1185 were from LA (21.2%). Mean age was similar, 71.5 and 70 for LA and overall cohort respectively. 55% and 58% were males for LA and overall cohort respectively. The LA and overall cohorts had similar rates of prior stroke or TIA, diabetes mellitus and hypertension receiving treatment, at enrollment. Mean CHADS2 score at enrollment was 2,.0 for the apixaban arm and 2.1 for the ASA arm, which is the same for cohorts. Other baseline characteristics were similar. Region subgroup analysis revealed no statistically significant (p> 01.0) interactions between treatment effects and geographic region. **CONCLUSIONS:** Baseline demographic and disease characteristics data from the LA cohort were similar to that of the clinical trial population. Results, in terms of safety and efficacy, given the total population trial, are expected to be consistent since interaction between treatment effects and geography was not significant.

CV3: ARETAEUS: RETROSPECTIVE STUDY OF MEDICATION USAGE PATTERNS FOLLOWING THE DIAGNOSIS OF TYPE 2 DIABETES IN LATIN AMERICA

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OBJECTIVES: To examine the initiation of oral antihyperglycemic agents (OAHAs) and/or statins in patients with type 2 diabetes mellitus (T2DM) and assess the time elapsed from diagnosis to treatment initiation and intensification when goals were not achieved in real world practice. **METHODS:** A retrospective study was performed on 662 medical records of patients with T2DM, diagnosed 24 to 48 months prior to signing the informed consent. The study included thirty-one general practitioner/specialist sites across Mexico, Argentina and Brazil. Inclusion criteria: age ≥21 years at diagnosis; complete record of pre-diagnosis medication and pre-existing CV risk factors and 2 years follow-up records. Exclusion criteria: type 1 diabetes; pregnancy; receiving antihyperglycemic agents or statins prior to diagnosis; initially treated with insulin after T2DM diagnosis; or clinical trial participation during the study period. Descriptive statistics were used for demographic/clinical characteristics. Kaplan-Meier test was used to examine time to treatment and cumulative treatment probability and multivariate logistic regression examined factors associated with such treatment. **RESULTS:** At diagnosis, patients had a mean age of 53 years; 44% had hypertension, 42% were obese and 23% had hypercholesterolemia. During the 2-year follow-up period, 93% were treated with OAHAs but only 29% of those eligible for statin therapy received statins. Time elapsed before first prescription of OAHA was 59±141 (Mean±SD) and 1 (1, 31) (median [IQR]) days and 230±232 days and 132 (30, 406) days for statin. No variables were associated with OAHA initiation but family history of T2DM and hypercholesterolemia at diagnosis were associated with statin initiation. No antihyperglycemic treatment intensification was recorded in 51%/53% of patients with HbA1c/FPG values above treatment targets during the follow-up period. **CONCLUSIONS:** The delay in treatment of hypercholesterolemia and intensification of treatment for hyperglycemia in patients with T2DM not attaining treatment targets works against effective prevention of chronic complications.

CV4: ECONOMICS OF DIABETES MELLITUS: THEORY AND EVIDENCE FOR BRAZILIAN DATA IN 2008

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INTRODUCTION: Diabetes Mellitus (DM) is characterized by the high level of blood glucose. Ministry of Health data estimated that Brazil had about 10 million DM cases in 2010, being the fourth main cause of death. WHO estimated the prevalence of DM in Brazil is 10.2%, about 20 million people. **OBJECTIVES:** To measure the DM social cost based in earnings losses of Brazilian workers due to disease in 2008 using data from National Survey of Households (PNAD/IBGE). **METHODS:** A Binary Probit model to measure the participation in work force and a two-stage Heckman model to measure worked hours and productivity. Each model is estimated separately for both gender individuals, with and without disease, according three distinct definitions for DM: Restrict, Broad and Comorbidities. To capture the counterfactual effect, the model was calculated for ill and healthy individuals. The difference of both values exhibited the losses, which were aggregate to the whole population and the total cost was estimated. **RESULTS:** According each criterion, respectively, DM reduced the participation in the labor market in 0,97%; 4,60% and 7,06% for men and 0,14%; 4,79% and 6,44% for women, while reduced, respectively 1,51%; 6,40% and 9,15% in productivity and 6,44%; 15,23% and 17,58% in worked hours just for women. There was no impact of DM on productivity and in worked hours for men. The DM total cost was R$ 8,064 billion, or US$ 3,451 billion converted by current exchange rate. The losses reached 0,73% of total earnings and 0,27% of Brazilian GDP in 2008. **CONCLUSIONS:** DM generates significant losses in income of Brazilian workers, especially in relation to their participation in the labor market, since affects both of gender. The results indicate that public policies should be directed to disease diagnosis and prevention, since the development of comorbidities amplifies the effect of losses.

HEALTH TECHNOLOGY ASSESSMENT STUDIES

HT1: RAPID INCREASE OF HEALTH LITIGATION AS A MEANS OF MARKET ACCESS FOR INNOVATIVE MEDICINES IN COLOMBIA AND THE POTENTIAL ROLE OF HEALTH TECHNOLOGY ASSESSMENT

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OBJECTIVES: Reimbursement of high-cost medicines excluded from the Colombian mandatory healthcare plan (POS) through legal mechanisms known as 'tutela' and the Scientific Technical Committees (CTC) have significantly increased in the last four years. As the new healthcare statutory law (1751-2015) puts pressure on the healthcare budget, it is likely that these will increase further. This research analyses the “judicialisation” of the right to health in Colombia and the feasibility of a mandatory health technology assessment (HTA) evaluation as a policy to reduce reimbursement of non-POS medicines by litigation. **METHODS:** Secondary research of the main tutela decisions of the Colombian courts and CTC decisions related to non-POS medicines between 2011 and 2014 were conducted. A 2014 Ombudsman's Office report of detailed medicine-tutelas was also analysed, and cross-referenced with statistics from the Colombian Ministry of Health and the General Prosecutor. A lack of official data for 2014 is addressed using case-by-case tutelas, literature review and stakeholder interviews. **RESULTS:** Tutela and CTC decisions are predominantly in favour of protecting the fundamental right to health (80% of all decisions between 2011 and 2014), giving access to non-POS medicines irrespective of cost-effectiveness. According to the Ombudsman's Office, of the 115,147 tutelas presented in 2013, 34,099 (18.8%) were requests for medicines of which over half (22,685) were for access to non-POS medicine. The Colombian Fund of Solidarity and Guarantees paid health-promoting entities (EPS) over COP2 billion in 2012 and over 2.5billion in 2013 for the reimbursement of non-POS medicines following tutela and CTC decisions.**CONCLUSIONS:** Decisions over access to many high-cost medicines in Colombia are taken in courts based on infringement of fundamental rights rather than on cost and clinical-effectiveness assessments. This provides an important avenue to access new medicines, but also side-steps the formal reimbursement process. A more systematic, binding HTA system would likely reduce health litigation.

HT2: FROM LAW TO REALITY: MEASURING TIME-TO-ACCESS OF CONITEC APPROVED DRUGS IN BRAZILIAN PUBLIC HEALTH CARE SYSTEM (SUS) IN THE STATE OF PARANÁ

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OBJECTIVES: Brazilian Federal Law 12.401/2011 created the National Committee for Health Technology Incorporation (CONITEC) and defined criteria and deadlines for health technology (HT) incorporation in public health system (SUS). CONITEC advises the Brazilian Ministry of Health about HT incorporation or disinvestment in SUS and clinical guidelines development. After CONITEC appraises and recommends a technology, it should be available for the population in 180 days. The objective of this analysis was to evaluate the time between a technology was recommended by CONITEC and actually became available. **METHODS:** We reviewed all CONITEC's reports since 2012, and selected those regarding drugs. Reports were classified in not recommended and recommended, and publication date was retrieved for those recommended. Simultaneously, we evaluated the date a drug recommended by CONITEC was received by the Centro de Medicamentos Básicos do Paraná (CEMEPAR), which is responsible for buying and distributing medications in Paraná. The time between report publication and drug availability was then assessed. **RESULTS:** CONITEC published 125 reports since 2012, 93 on drugs and 42 classified as recommended. These 42 represented 62 drugs with different pharmacologic concentrations. From these, it was the Paraná state's liability to distribute 45, which were then selected for the analysis. The majority of cases (64.4%) were in non-conformity with established deadlines: 55.5% were unavailable at CEMEPAR before 180 days, and 8.9% were never bought until the day of this analysis (February 06th, 2015). The longest time between drug recommendation and its availability at CEMEPAR was 2 years and 73 days (salmeterol 50mcg) and the minimum was 13 days (adalimumab 40mg). Average time for a drug to be available for distribution was 315.3 days (135.3 days beyond the established deadline).**CONCLUSIONS:** This study shows that mere recommendation by CONITEC doesn't guarantee access for the population in the timeframe established. Reasons should be investigated.

HT3: IS LATIN AMERICA READY FOR THE IMPLEMENTATION OF RISK SHARING AGREEMENTS?

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OBJECTIVES: In Europe, risk-sharing agreements (RSAs) have been of interest since the early 2000s. Escalating budgetary pressures, the increasing number of expensive biologics reaching the market and the introduction of brand-on-brand combinations has recently accelerated the need for payers and the industry to negotiate solutions to ease access of innovative products. In Latin America, RSAs have recently begun to be considered and several payer institutions have expressed their willingness to enter into these negotiations. This work explores the level of public and private payer receptiveness to potential innovative schemes in the region. **METHODS:** Review definition and types of innovative pricing agreements (IPAs). Perform secondary research to gather latest developments in Latin America, with a focus on RSAs. Conduct primary research with payers (N=4 per market) from select markets (Colombia, Mexico, Brazil and Chile). Analyze drivers for acceptability, feasibility and implementation and map receptiveness of agreements based on product characteristics and payer type. **RESULTS:** IPAs are still not considered as standard approach towards inclusion in HTA processes and price negotiations, although payer interest is increasing Differences in acceptability are related with perceived degree of product differentiation, innovation and level of unmet need Differences of acceptability across payer types and markets exist, depending on the level of prior experience, human and infrastructure capabilities, and institutional flexibility **CONCLUSIONS:** Perceived as a tool to favor access, improve the cost-effectiveness and reduce the level of uncertainty associated to drugs, the implementation of RSAs however, does require an administrative and organizational structure not yet in place with most stakeholders. Payers who drive access decisions based on cost-benefit analysis are more prone to enter into RSAs.

However, RSAs are mainly seen as a tool for drugs with high clinical value in high disease burden areas. Payers also seek for the support from the industry in their implementation.

HT4: PROCESO DE INCORPORACIÓN DE FÁRMACOS A LA LISTA POSITIVA DE MEDICAMENTOS (LPM) PARA LOS PRESTADORES INTEGRALES DE SALUD: EXPERIENCIA EN EL MINISTERIO DE SALUD PÚBLICA (MSP) DE URUGUAY

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OBJECTIVOS: Describir el proceso para la de incorporación de fármacos al LPM en el marco del Sistema Nacional Integrado de Salud Uruguayo **METODOLOGÍAS:** El proceso comienza con la presentación de un formulario de solicitud al MSP al que se adjunta evidencia de alta calidad de su eficacia y seguridad comparado con las alternativas terapéuticas. Esta evidencia es analizada y complementada con una nueva búsqueda bibliográfica sistemática realizada por el evaluador. Se resumen los resultados de eficacia y seguridad obtenidos de estudios aleatorizados presentados y cuando hay más de uno y es metodológicamente adecuado se realizan meta análisis. Si no hay estudios de comparación cabeza a cabeza se realizan en ocasiones comparaciones indirectas. Los informes de eficacia y seguridad son posteriormente evaluados por un experto clínico quienes aportan su punto de vista en cuanto a la pertinencia de la inclusión. Finalmente en los casos candidatos a ingresar se realiza un análisis económico (impacto presupuestal o estudios de costo utilidad según el precio del tratamiento anual sea menor o supere un PBI per cápita). **RESULTADOS:** En 2011 solicitaron ingreso al FTM 123 fármacos, en 2012 fueron 37 fármacos, en 2013 fueron 30 fármacos y en 2014 fueron 51 lo que totaliza 241 solicitudes. De estas, todos fueron completamente revisados, 54 fueron rechazados por insuficiente evidencia presentada, 163 tienen informes de eficacia y seguridad completos y 24 están siendo evaluados en este sentido. De los 163 evaluados, 61 tienen pendientes evaluaciones clínica o económicas. **CONCLUSIONES:** El desarrollo de un sistema de evaluación de tecnologías para informar a los decisores sobre la incorporación de nuevos fármacos a las listas positivas de medicamentos de los sistemas únicos de salud, requiere de tiempo y pericia técnica, pero es posible en entornos de recursos limitados y representa un avance con respecto a modalidades anteriores.

PATIENT AND CLINICIAN PREFERENCES & QALY STUDIES

PP1: BARRIERS TO PARTICIPATION IN TRIALS OF CANCER: A SURVEY ON CLINICAL RESEARCH PERCEPTION

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OBJECTIVES: Clinical trials (CT) represent an important alternative treatment for oncologic patients. Also, CTs represent an important step to development of improved therapeutic strategies. On the other hand, little is known on Brazilian patient's perception regarding CT. Therefore, the aim of this survey was to describe the overall perception of clinical research in Brazil. **METHODS:** From April 2012 until October 2014, 254 respondents answered an internet-based survey related to knowledge related clinical research from Oncoguia Institute, an independent nonprofit cancer advocacy institution. **RESULTS:** Overall, about 85% of respondents would participate on oncology trial. Of all respondents, 99.9% believe that clinical research can contribute positively to advance of cancer treatment by increasing the scientific knowledge, improvement of treatment, finding a cure, to have a new treatment option, or improved quality of life. Among the respondents, 96% affirmed that have already had some information on clinical research, being internet the most used form of communication (69%), followed by physicians´ orientation (8%), magazines and newspaper (8%) and hospital hand-out material (7%). In addition, only 18 respondents reported previously participation on CT (6.9%), and about 10% answered that have someone known that participated in a clinical trial (e.g. friend, family or other). **CONCLUSIONS:** This survey demonstrates that respondents associate clinical research as an option in cancer treatment. However, only a small number of respondents have participated previously of a CT, besides that, internet was the main tool to learn about CTs. The data indicate that lack of available information, including low participation of physician on instructing their patients, are the current major barriers on CT in Brazil. Improvement of physician and patient awareness are potential solutions. Thus, strategies are needed to improve communication between patient and physician.

PP2: AN EQ-5D-5L VALUE SET BASED ON URUGUAYAN POPULATION PREFERENCES: REPORT OF THE FIRST EXPERIENCE IN LATIN AMERICA

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OBJECTIVES: To derive a value set from Uruguayan general population using the new five level (5L) EQ-5D instrument and report population norms. **METHODS:** We randomly assigned general population individuals to value 10 health states using composite Time Trade Off and 7 pairs of health states through Discrete Choice Experiments. Additionally, respondent provided socidemographic information and rated their current health state. The sample was stratified using with quotas by location, gender, age and socioeconomic status in order to represent the Uruguayan population structure. Trained interviewers conducted face to face interviews using EuroQol valuation technology (EQVT) to administer the protocol, as well as to collect and store the data. Primary analysis used OLS and maximum likelihood robust regression models with or without interactions**RESULTS:** We included 794 respondents between 20 and 83 years. Their characteristics were broadly similar to the Uruguayan population. Forty four percent of the subjects reported no problems on any of the five EQ-5D-5L dimensions. Older respondents reported more problems in all dimensions. Mean self-reported

VAS was 79.63 (SE 0.58); it decreased with age and was lower in women. As OLS model showed logical inconsistencies, robust modelling was chosen to derive social values. Values ranged from -0.264 to 1. States with a misery index=6 had a mean value of 0.965. When comparing the prediction for a misery index=6 in the Uruguayan population with the Argentinian EQ-5D-5L crosswalk value set, the Uruguay values are about 0.05 higher. The mean index value for the general population in Uruguay, using the final main effects Uruguayan EQ-5D-5L value set, is 0.895. In general, older people had worse values and males had slightly better values than females. **CONCLUSIONS:** We derived the EQ-5D-5L Uruguayan value set, the first in Latin America. These results will help inform decision-making using economic evaluations for resource allocation decisions.

PP3: COST-EFFECTIVENESS ANALYSIS FOR CERVICAL CANCER SCREENING USING HPV TESTS IN BRAZIL

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OBJECTIVES: The aim of this study is to estimate the cost-effectiveness of cervical cancer primary screening with HPV PCR tests in Brazil. **METHODS:** A Markov model captured the outcomes of 1,000 non-hysterectomized women ages 25 years and older who transitioned annually across possible health states and were screened over a 45-year period in Brazil. This model was used to compare three strategies: (1) cytology alone (2) Pooled HPV with reflex cytology (3) HPV with 16/18 genotyping and reflex cytology, from a payer's perspective. The one-way and probabilistic sensitivity analyses were performed. Additionally, the screening and cancer treatment costs were calculated according to DATASUS 2012 (Departamento de Informática do Sistema Único de Saúde - Brazil) public data, in Brazilian Real (BRL) and discounted at an annual rate of 5%.**RESULTS:** The primary screening with the strategy (3) HPV with 16/18 genotyping and reflex cytology, results in earlier detection of clinically relevant high-grade CIN (Cervical Intraepithelial Neoplasia) at the initial visit along with efficient use of healthcare resource in Brazil. In addition, the model suggested an Incremental Cost Utility Ratio (ICUR) and Incremental Cost Effectiveness Ratio (ICER) of 13,266 R$/QALY and 51,389 R$/LYG, respectively, comparing the strategies (3) to (1), whereas, the strategy (2) was dominated by strategy (3). **CONCLUSIONS:** The current analysis indicated that the HPV with 16/18 genotyping test (strategy 3) is cost-effective for primary cervical cancer screening in women aged ≥25 years in Brazil due to the ICER ≤ 3 Brazilian GDP per capita, according to the World Health Organization's recommendations.

PP4: AN UNDEVELOPED PICTURE: THE AVAILABILITY OF UTILITY VALUATIONS IN LATIN AMERICA – HOW WILL THEY AFFECT QALYS?

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OBJECTIVES: Health Technology Appraisal processes in Latin American countries are of increasing importance. For decisions made on the basis of cost per quality-adjusted life year, the utility inputs used in the economic model are typically influential on the outcome. Utility valuations vary from country to country and we therefore sought to review the availability of valuations for Latin American countries. **METHODS:** Using PubMed, a structured search was conducted to identify which of the common generic, preference-based instruments had valuations for Latin American countries. The instruments included in the search were EQ-5D, SF-6D and HUI. Identified studies were retrieved in full text and, where extant, valuations of each instrument across different countries were compared. **RESULTS:** The review identified no HUI valuations, one SF-6D valuation (in Brazil) and three EQ-5D valuations (in Argentina, Chile and Brazil). The three EQ-5D valuations all used time trade-off methodology but the sampled states used differed such that only 13 states had an observed value across all three studies. Visual comparison of these observed states revealed considerable divergence of the Chilean valuation from the Brazilian and Argentinian valuations in the lower health states. This trend remained when the final modelled values for the full set of EQ-5D health states were plotted. Divergence increased in worse states, producing greater utility differences between states in Chile. **CONCLUSIONS:** There are currently a limited number of valuation sets available in Latin America. Only EQ-5D has multiple valuations to allow inter-country comparison, revealing clear differences. Such noticeable variations between countries in the value of changing health states make it unlikely that cost-utility analyses are generalisable in the region, affecting pricing and reimbursement decisions. Further work therefore remains to generate valuation sets for other countries in Latin America to allow an understanding of how reimbursement may be affected by increasing use of HTA.

RESEARCH ON METHODS STUDIES

RM1: STANDARDIZATION PROCESS OF RAW DATASUS AND CONSUMPTION ANALYSIS OF ONCOLOGY THERAPIES IN THE BRAZIL PUBLIC HEALTH CARE SYSTEM: A COMPARISON BETWEEN RAW AND STANDARDIZED DATASET IN COLORECTAL AND LUNG CANCER

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OBJECTIVES: To compare results of oncology drugs consumption extracted from DataSUS raw database with those obtained after standardizing and cleaning database fields. **METHODS:** We used the SUS database available from DataSUS FTP and standardized the oncology treatment fields available in the specific oncology database (DataSUS AQ). Standardization included harmonization of different names used for the same drug name (i.e., cetuximab, cetux, cetukimabe and ketuxim), including generic and brand names. We also converted acronyms use in NCCN and MOC Brazil guidelines to the generic name (i.e.: fluoracil and 5FU; irinotecan and CPT-11). We created a new standardized table with additional fields (regimen name, drugs used, adjuvant therapy and a high/low cost flag).

For this analysis we filtered by APAC (High complexity procedures approval) code for colorectal cancer (CRC) and lung cancer (LC) from 2012 to 2014. All blank or not identified regimens were excluded from this analysis. The final sample was composed by 50,729 CRC and 23,525 LC records. **RESULTS:** It was compared the total number of regimens available at raw data and those standardized. Regarding CRC regimens we found 7,698 different treatments in the raw database and 82 in the standardized dataset, a considerable reduction. In raw data, the most frequent regimen was FOLFOX representing 7.9% of all records, in contrast to standardized dataset where FOLFOX regimen represented 33.6% of all records. We found 262 records written in different ways in the raw database that referred to FOLFOX. Analyzing LC records, the most frequent regimen in raw data was carboplatin+taxo representing 3.1% of LC APACs claims in comparison to the standardized dataset where carboplatin+taxol represented 27.6% of all claims; 278 raw records had different names referring to carboplatin+taxol. **CONCLUSIONS:** DataSUS can be a reliable source on oncology consumption therapies after standardizing data fields that were originally introduced by manual typing.

RM2: EXTRACTING AND USING DATA FROM ELECTRONIC MEDICAL RECORDS (EMR) TO MONITOR QUALITY OF CARE AND PRESCRIPTION PATTERNS FOR DIABETES PREVENTION AND CONTROL IN OUTPATIENT CLINICS OF LOW AND MID RESOURCES COUNTRIES: THE CASE OF COLIMA, MEXICO

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OBJECTIVES: Evaluate the possibility of extracting data from the EMR used by the Health Services of Colima, Mexico and use it to assess the quality of care and prescription patterns for Diabetes prevention and control in outpatient clinics. **METHODS:** A copy of the entire EMR database, including personal identification variables, was obtained from the Health Services of Colima. A data verification and validation process was carried out including checking for EMR duplicity using Structured Query Language (SQL) and phonetic algorithms. A flat table for each patient's encounter with the health services was constructed in order to have a longitudinal record along with vital signs, diagnostic and control tests as well as drugs prescribed. Each encounter was then coded to reflect in a single character string the main variables of diabetes care: number of visit after diagnosis, glucose measurement, drugs administered, as well as eye and feet examination. **RESULTS:** The EMR in Colima initiated its operation in 2005 as a pilot in 3 clinics, in 2010 it covered about 50% of the state's clinics (55) and in 2013 reached 100%: 117 clinics. A total of 393,398 records were extracted and consolidated with 2,271,251 outpatient visits in the period 2005 – march 2014. The age and sex structure of the population in the EMR was very similar to that of the 2010 population center for the state. Eleven percent of the population eighteen or older in the database was diagnosed with diabetes; only 45% of these had at least one glucose exam and only 16% were taking insulin. The most frequent medication prescribed was metformine. **CONCLUSIONS:** The use of data from EMR is suitable to evaluate quality of care and prescription patterns in the prevention and control of diabetes mellitus. Continuing monitoring established quality parameters and prescription may help to improve quality.

RM3: COMPARISON OF SOCIAL EQ-5D TIME TRADE-OFF VALUES IN CHILE 2008-2013: DO GEOGRAPHICAL DIFFERENCES REALLY MATTER?

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OBJECTIVES: To evaluate differences in social values collected in the Chilean EQ-5D valuations surveys of 2008 and 2013 using the time trade-off method (TTO). **METHODS:** Responses from a total of 3701 individuals who participated in the 2008 and 2013 Chilean EQ-5D valuation surveys were analyzed to assess differences in TTO values from 31 health states between both studies adjusting for gender, age and educational attendance. Differences were explored using several ordinary least square (OLS) regression models taking into account sampling weights. Variations of TTO values between the Metropolitan Region (MR) and the rest of the country were evaluated using data only from the 2013 survey adjusting not only for socio-demographic characteristics, but also for other variables known to have an effect on respondent´s values such as self-reported health status, marital status and level of difficulty answering the TTO questionnaire. **RESULTS:** A basic regression model showed significant differences (p value <0.001) between both surveys indicating that 2008´s TTO values collected only in the MR were lower than 2013´s TTO values collected alongside the whole country. These differences remain after adjusting for confounding variables. Exploring possible determinants of geographical differences at individual level based on 2013 data, only years of education and a high level of difficulty answering the TTO questionnaire appeared to have a significant effect on valuations (p value <0.001). However, those effects were marginal and do not fully explain the differences found between TTO values collected in the MR and the rest of the country **CONCLUSIONS:** Our findings support the idea that cultural/geographical differences could have a significant impact on social values within-country. These differences constitute an important factor that should be taken into consideration when designing and analyzing results from these types of studies on a national level. Further international research is required to improve knowledge on this topic.

RM4: MODELO DE CARACTERIZACIÓN DE UNA POBLACIÓN AFILIADA A UNA ASEGURADA EN COLOMBIA, MEDIANTE UNA METODOLOGÍA DE AGRUPACIÓN POR RIESGO

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OBJECTIVOS: caracterizar la situación de salud y su relación con el costo de atención mediante un modelo de agrupación de pacientes, por el riesgo de presentar enfermedades agudas, crónicas instauradas y multienfermedad. **METODOLOGÍAS:** a partir de la información de uso de servicios reportados y consolidados en el año 2013, se realizó una clasificación de pacientes bajo tres

categorías: pacientes sin contacto o con enfermedades agudas, con enfermedad crónica instaurada y con múltiples enfermedades crónicas. Los pacientes identificados como crónicos cumplían las siguientes características: con diagnósticos según el código CIE-10 y con un mínimo de tres atenciones. Se identificaron los costos de atención de cada grupo de pacientes en cinco categorías: hospitalaria, urgencias, domiciliaria, medicamentos y ambulatoria. Cabe destacar que solo se incluyeron los costos que están dentro del plan de beneficios. **RESULTADOS:** de los 3.008.216 de pacientes analizados, el 7,99% padece por lo menos una enfermedad crónica y tiene una participación del 37,2% del costo total, mientras que el 0,59% padece dos o más enfermedades crónicas y representa el 5,53% del costo total. Se destaca que el 4,87% de la población padece enfermedades cardiovasculares-diabetes y representan el 18,06%, el 19,46% y el 20,42% del costo total, costo por medicamento y costo hospitalario respectivamente. Asimismo, los pacientes con cáncer, representan el 0,25% de la población afiliada y tienen un impacto en costo del 5,4% sobre el costo total, constituido principalmente por cáncer de mama. Para el análisis los no crónicos fueron agrupados por ciclo vital y sexo. **CONCLUSIONES:** el costo promedio anual por paciente asciende a $595.992 pesos, no obstante, la identificación de grupos de riesgo, como los de enfermedades crónicas instauradas, brindan una mejor perspectiva de la distribución del gasto en salud y muestra el comportamiento invertido entre costo y cantidad de pacientes referido por el modelo de Kaiser.

RESEARCH POSTER PRESENTATIONS - SESSION I

RESEARCH ON METHODS STUDIES

RESEARCH ON METHODS - Clinical Outcomes Methods

PRM1: ESPESOR CORNEAL CENTRAL EN PERSONAS SANAS EN CHILE Y CORRELACIÓN ENTRE DISTINTOS MÉTODOS DE MEDICIÓN

Fau C, Nabzo S, Saez C, Zuñiga C,Fundacion 2020, Santiago, Chile

La medición de la Paquimetria Central (PC) en los últimos años ha tenido cada vez más valor en diferentes situaciones medicas tanto diagnosticas como terapéuticas. Diversos estudios han demostrado la influencia de la raza en esta medición, siendo en afroamericanos y japoneses significativamente menor. **OBJECTIVOS:** medir la PC en una población de personas sanas en Chile, evaluar su relación con la edad y sexo, y comparar los métodos de medición más frecuentes en términos de precisión y correlación con la Paquimetría Ultrasónica (PCUS). **METODOLOGÍAS:** Se diseño un estudio prospectivo observacional en 125 pacientes sanos mayores de 20 años. Las mediciones de la PC fueron realizadas con los equipos Pentacam, Pachmate DgH y RTVue OCT. **RESULTADOS:** La PC-US fue de 539µ ± 35,5µ, no se encontró correlación significativa con la edad (p=0,4 y r=0,07) así como tampoco con el sexo (p=0,73). La PC medida con Pentacam fue 534,79µ ± 34,9µ, su correlación con la PC-US fue r=0,96, su diferencia fue de 5,93µ ± 10,5µ (p<0,001), la PC del OCT RTVue fue de 535,5µ ± 36,24µ, su correlación con la PC-US fue r=0,98 y su diferencia 7,19µ ± 7,2µ (p<0,001). **CONCLUSIONES:** La PC-US fue significativamente más delgada que la reportada en poblaciones caucásicas, hispanas o española, esta fue similar a la reportada en estudios realizados en población japonesa. El OCT RTVue obtuvo una correlación mayor con límites de concordancia más estrechos que el Pentacam en relación a la PC-US.

PRM2: WHAT DOES COPD EXACERBATION MEANS FOR PATIENTS AND FOR HEALTHCARE?

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WHAT DOES COPD EXACERBATION MEANS FOR PATIENTS AND FOR HEALTHCARE? Capova G1,Kristova V2 12nd Faculty of Medicine Charles University Prague, Dep of Pneumology, Czech Rep, 2Faculty of Medicine, Dep of Pharmacology andCclinical Pharmacology, Bratislava, Slovakia **OBJECTIVES:** Exacerbations of COPD are the main cause of medical visits and hospitalizations of patients with COPD and lead to significant increases in resource utilization and cost to the health care system. Prevalence of COPD in the Czech Republic is 8%. In 2010 died due to COPD 1310 men and 720 women. The aim of this study was to quantify the average cost of exacerbation of COPD and patients quality of life. **METHODS:** We combined retrospective and prospective monitoring costs and quality of life in patients with different stages of COPD. Comparing 2 groups: patients COPD with acute exacerbations and group without exacerbation. Quality of life was assessed with EQ5D questionnaire. Involved 180 patients aged 40-89 years. Severe exacerbation was defined by COPD-related hospitalization or death; moderate by oral or parenteral corticosteroid use. **RESULTS:** Exacerbations in 52% solved on outpatient, 48% of patients were hospitalized - stage III COPD than stage II (75%vs.18%). Mean annual costs were $ 2000 and $ 4900 for patients with two or more exacerbations. Severity of exacerbations, presence of cardiovascular disease, diabetes, and long-term oxygen use were associated with higher adjusted costs. **CONCLUSIONS:** The study demonstrated the high cost of care and significant reduced quality of life in patients with COPD exacerbations compared with patients without exacerbation. Early diagnostics of the mild form of COPD (stage I-II), early intervention and disease management , Early elimination harmful substances (smoking cessation), new medications for moderate stage of COPD, are warranted to reduce the severity and frequency of exacerbations and the related cost impact of the disease.

PRM3: RIVAROXAVAN+ENOXIPARINA COMPARADO A ENOXIPARINA EN PACIENTES POSTOPERADOR DE REMPLAZO ARTICULAR DE RODILLA Y CADERA

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OBJECTIVOS: Evaluar el efecto d rivaroxaban + enoxiparina comparado a enoxparina en pacientes postoperados de reemplazo articuñar de cadera y rodilla. **METODOLOGÍAS:** se realizo en el servicio de cirugia de reemplazos articulares de la UMAE LOMS VERDES DEL IMSS en el periodo de enero a noviembre 2014, estudio casos y controles longitudinal y prospectivo. se estudiaron 85 paciente de ambos sexos, en edades mayores de 18 años con diagnostico de coxartosis, gonartrosis sometidos a cirugia de reem´plazo articular de rodilla y cadera manejados con rivaroxaban y enoxiparna y enoxiparina. **RESULTADOS:** Gpo A amenjados con enoxiparina 41 paciente 25 masculino y 16 femenino 21 con artoplastia total de cadera y 20 de rodilla, co promedio de edad 63a. 2 con obesidad con imc mayor a 27, con valoracion predictivo de wells 6 paciente con alto, valorados con escala de wells a los 15 dias de 6 alta, 35 moderada y cero baja, no torbos por doppler.este gpo, manejado con enoxiparina y rivaroxaban. grupo B, 55 pacientes 25 masculino y 30 femeninos con 31 pacientes con artroplastia total de cadera y 24 artroplastia total de rodilla, con un promedio de edad 66, 1 paciente con lesion tumoral. alos 15 dias presentaro 9 pacients conprobabilidad altas y moderados cero bajo. la sintomatologia presente es el dolor, trombosis diagnosticado clinica por doppler y una muerte pacientes manejado con enoxiparina y rivaroxaban. **CONCLUSIONES:** la trombosis venosa profunda, es una complicaciones postoperatproa frecuente y grave en los pacientes postoperados de artroplastia total de rodilla y cadera, los pacientes presentaron en fases iniciales datos clinicps de trombosis venosa profunda con indice de wells a revisando estos datos podemos decir que apesar de la admnistracion de rivaroxaban el riesgo de presentar un evento trombotico es inminente en todos los paciente postopeprados de artroplastia total de rodilla y cadera.

RESEARCH ON METHODS - Cost Methods

PRM4: COST-BENEFIT ANALYSIS OF WHOLE BODY BONE SCINTILOGRAPHY IN THE PRE-TRASNPLANT ASSESMENT OF ADULT PATIENTS BEARES OF HEPATOCELLULAR CARCINOMA IN A LIVER TRANAPLANT LIST IN THE SOUTH OF BRAZIL

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BACKGROUND: In patients with hepatocellular carcinoma (HCC), bone metastasis occurs rarely in the natural disease course. Current pre-transplantation evaluation policy includes mandatory bone scintigraphy as a requisite for selecting patients to be included on hepatic transplantation list. Previous studies, however, have shown that routine scintigraphy is not cost-effective and generates unnecessary Health System costs.**OBJECTIVES:** Evaluate for the first time in Brazil the pertinence of systematically requesting whole-body bone scintigraphy in early-stage HCC adult patients as a requisite for inclusion on the waiting list for HTx from a deceased donor, according to a reference center in South Brazil. **METHODS:** We retrospectively analyzed 256 medical files of early-stage HCC patients who underwent hepatic transplantation, 187 of whom were subjected to pre-transplantation bone scintigraphy. **RESULTS:** The most common etiology was hepatitis C viral infection, the most common liver functional class was Child B, and 78% of the patients met the Milan criteria. None of the 187 scintigraphies was positive for metastasis. The 1- and 5-year post-hepatic transplantation survival rates among patients subjected to bone scintigraphy were 81% and 69%, respectively; those among patients not subjected to scintigraphy were 78% and 62%, respectively (p = 0.25). The 1- and 5-year post-HTx recurrence rates among patients subjected to bone scintigraphy were 4.8% and 10.7%; those among patients not subjected to scintigraphy were 2.9% and 10.1%, respectively (p = 0.46). **CONCLUSIONS:** The cost generated by the current evaluation policies, US$ 27.582, did not result in the detection of any sub-clinical metastasis and therefore failed to provide positive cost-effectiveness.

PRM5: EXPLORING VARIATION IN COST-EFFECTIVENESS ESTIMATES IN STUDIES THAT EVALUATE ADULT PNEUMOCOCCAL VACCINATION IN LATIN AMERICA

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OBJECTIVES: To assess the wide variation in cost-effectiveness estimates in studies that evaluate the economics of pneumococcal vaccines currently approved for adults in Latin America. **METHODS:** To explain this variation we reviewed the relevant peer- and non-peer reviewed literature of Pneumovax23 and Prevnar13 in the Latin American context. We systematically searched 6 databases to identify studies published between 2000 and 2014 presenting economic impact data of these two vaccines among adults in the region. Studies containing abstracts and emerging work pending publication were considered given limited range of published studies. Selected studies were reviewed in terms of country of evaluation, strategies assessed, study design, method of evaluation, cost measures, perspective, and period of analysis. We used the values of model parameters derived from these papers and applied standard formula to estimate potential DALYs avoided or QALYs gained. To capture the strengths of the economic evidence, we classified the kinds of data used in the papers as ‘primary,’ ‘secondary’ or ‘both’, and critically appraised the papers using a preset quality checklist. **RESULTS:** A total of 30 peer- and non-peer reviewed papers presenting economic data were identified. Several parameter values were found to have a determining influence on cost-effectiveness estimates including, but not limited to, disease incidence, serotype coverage rates, treatment costs, vaccination costs, herd immunity effects, discount rates, vaccine efficacy and effectiveness estimates. Key insights from this review include the variability in methods used to select and assess vaccine effectiveness and duration of protection.**CONCLUSIONS:** An understanding of the factors that affect variation in cost-effectiveness estimates can help policy-makers gain a better understanding of the available economic evidence, identify gaps in the literature and inform future adult pneumococcal vaccine policy recommendations.

PRM6: AVALIAÇÃO DO IMPACTO ECONÔMICO DE AFASTAMENTOS LABORAIS POR CÂNCER DE MAMA . ANÁLISE PRELIMINAR SINGULAR INSTITUCIONAL

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OBJETIVOS: Identificar a evolução histórica das incidências de câncer de mama em funcionárias públicas de uma instituição e correlacionar os dias de afastamento do trabalho durante o tratamento , com os respectivos estadios clínicos. **MÉTODOS:** Análise de pacientes com Câncer de Mama, registradas no banco de dados dos Serviços de Pericia Médica e do Instituto de Saúde de Curitiba (ICS) , da Prefeitura Municipal de Curitiba (PMC) , no Estado do Paraná , Brasil , em 2008 a 2013 . **RESULTADOS:** Os dados levantados permitiram conhecer a frequência com que a doença acometeu pacientes novos e antigos ao longo dos 5 anos e os respectivos afastamentos laborais por estadios. Conquanto os diagnósticos tenham sido mais precoces nos últimos anos (estádios I e II), permaneceu elevado o número de casos tardios (estádios III e IV) assim como os afastamentos laborais por estes últimos determinados, possivelmente devido à maior complexidade exigida para o tratamento (quimioterapia, radioterapia, cirurgia, tratamento fisioterápico e psicológico). Entrementes, a melhoria das condições diagnósticas é fundamental para que o tratamento seja menos agressivo e mais resolutivo, com consequente diminuição dos prejuízos para o trabalhador e para o empregador. **CONCLUSÕES:**Os dados sugerem que os diagnósticos precoces estão sendo feitos em maior proporção que os diagnósticos tardios, mas os números dessa vantagem ainda são insuficientes para a redução dos afastamentos laborais e conseqüente impacto econômico institucional . Afirmamos a necessidade de maiores esforços no sentido de proporcionar à população meios mais eficientes e céleres de diagnóstico, o que se faz também pela facilitação de acesso às tecnologias disponíveis, e nem sempre financeiramente viáveis. Estudos detalhados de impacto financeiro são extremamente necessários em doenças crônico degenerativas , especificamente em situações de trabalhadoras curadas .

PRM7: PROPUESTA DE UN INDICADOR QUE VALORE LA CARGA DE ENFERMEDAD DESDE LA PERSPECTIVA DEL RIESGO Y COSTOS EN UNA ENTIDAD PROMOTORA DE SALUD COLOMBIANA

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OBJECTIVOS: plantear una metodología que permita estimar la carga de enfermedad mediante un único indicador que combine el costo y la población agrupada por riesgo de enfermar o con enfermedades crónicas instauradas que sirva como medida de gestión. **METODOLOGÍAS:** se desarrolló un estudio ecológico utilizando la base de datos de afiliados a Saludcoop (2013) y tomando como referencia la totalidad de la población afiliada activa. La población fue agrupada en 35 grupos según edad, sexo y presentación de enfermedades crónicas. Para cada grupo se estableció el costo medio y su desviación para construir un ponderador, tomando como referencia el costo de un paciente sano entendido como el recurso asignado para promoción y prevención, para estimar una medida de carga de enfermedad entendida como las veces (razón) de costo sobre afiliado sano. **RESULTADOS:** el grupo que más peso aporta de manera individual es el de tres o más enfermedades crónicas (21,7559) y el menor hombres jóvenes (0,2433). Desde la carga global el menor valor es representado por las mujeres que tienen VIH (0,21%), y la mayor carga de costos es causada por los individuos con dos enfermedades crónicas (11,05% de los costos totales). Aquellos con enfermedad cardiocerebro-endocrina representan el 23% al sumar hombres y muejeres. El 1,22% de la población analizada (5.285.744) presenta dos enfermedades crónicas y corresponden al 11,03% de la carga de costos total. Se ajustarón los valores según edad para poder realizar la comparación con otras aseguradoras. **CONCLUSIONES:** se estimó un indicador promedio para la aseguradora de 19,95 y su comportamiento es consistente con la relación de distribución de la población, la presencia de enfermedades crónicas y la distribución de sus costos. Con la estimación ajustada por edad es posible realizar comparaciones con otras aseguradoras y el análisis con otros años permitirá hacer seguimiento a la gestión.

PRM8: BUDGET IMPACT ANALYSIS OF DRUGS: SYSTEMATIC REVIEW

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OBJECTIVES: This study aims to know the methodological quality of Budget Impact Analyses on Drugs. **METHODS:** Systematic review – The papers were selected presenting as study design "budget impact analysis" and intervention "medicine". The search also considered similar terms. International databases utilised: PubMed, Central (Cochrane), HTA (NICE) and Lilacs. It occurred too manual search. Two independent reviewers performed the evaluation and a third reviewer or concession resolved any disagreement. The quality of Budget Impact Analyses on Drugs was evaluated according to Principles of Good Practice BIA - ISPOR 2012**RESULTS:** Publications were found between 2001 and 2015. More than 70% published since 2010. USA, Spain, Italy and UK together produced more than 50% of the publications. More than 70% did not declare a guideline used (even after the year 2010). The most usually guideline (14%) was the ISPOR (after the year 2009). Even guideline being used the studies did not present all the requirements. More than 30% analysis were just a projection of expenditures. More than 42% did not use reference scenario. More than 30% used smaller horizon time than three years. More than 50% of the study perspective the public system. More than 50% of the analyses were performed by statistical method using a spreadsheet. More than 21% did not do sensitivity analysis. More than 90% did not present model validation. More than 80% of the studies report limitations in the methods. Only 19% of the studies declare no

conflicts of interest. **CONCLUSIONS:** The amount of budget impact analysis has increased, but few studies have yet been carried out based on guidelines and registers all the requirements. Many methodological uncertainties were identified and most of the studies recorded conflict of interest. The budget impact analysis still lack acceptable quality.

PRM9: A SYSTEMATIC REVIEW OF ECONOMIC EVALUATIONS IN LATIN AMERICA: ASSESSING THE FACTORS THAT AFFECT ADAPTATION AND TRANSFERABILITY OF RESULTS

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OBJECTIVES: Results from economic evaluations are rarely generalisable due to a variety of factors between countries. The adaptability and transferability of economic evaluations often depend on the methodology, data sources used, and the quality of reporting. The objective of this systematic literature review was to identify and assess the aforementioned factors for economic evaluations conducted in Latin American countries.**METHODS:** Economic evaluations conducted in Latin America were identified by searching NHS-EED (whose search strategy includes MEDLINE, MEDLINE-In Process, EMBASE and EconLit) in February 2015. The Latin American health bibliographic database (LILACS) was also searched to increase the sensitivity of the review. The search strategy included broad terms related to “economic evaluation” and Latin America. All search results were evaluated by two independent reviewers, with any disagreements resolved through consensus. **RESULTS:** A total of 452 abstracts and titles were selected for screening after de-duplication, of which 31 articles fulfilled the inclusion criteria for cost-utility economic evaluations and were included in this analysis. Almost half of all studies identified were from a Brazilian perspective (n=15, 48%), with the remaining based in Mexico (n=7, 23%), Colombia (n=2, 6%), Chile (n=2, 6%), Argentina (n=2, 6%) or a combination of Latin American countries. The majority of clinical inputs were based on trial data, of which 73% were RCTs; however, of these, only 6% used data from a local trial. Utility inputs were sourced from international literature in 94% cases. The studies evaluated consistently reported cost years (87%) and outlined the main assumptions and limitations (94%). In all of the reports the comparators were clearly described with an incremental analysis performed. **CONCLUSIONS:** Economic evaluations identified in Latin America demonstrated consistent reporting of study methodologies, with international, trial-based inputs commonly used as data sources. This will likely aid the adaptability and transferability of model results across Latin America.

RESEARCH ON METHODS - Databases & Management Methods

PRM10: MORBIDADES E CUSTOS DAS INTERNAÇOES HOSPITALARES DO SISTEMA ÚNICO DE SAÚDE PARA DOENÇAS CRÔNICAS EM MARINGÁ, PARANÁ, BRASIL

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OBJETIVOS: Caracterizar as morbidades e os custos das internações hospitalares do Sistema Único de Saúde para doenças crônicas (cardiovasculares, respiratórias, diabetes e neoplasias) em Maringá, Paraná, Brasil, entre 2008 e 2012. **MÉTODOS:** Tratou-se de estudo analítico e retrospectivo, desenvolvido a partir da coleta de dados do Sistema de Informações Hospitalares do Sistema Único de Saúde para o município destacado. As variáveis coletadas foram: a) número de autorizações de internações hospitalares pagas pelo Sistema Único de Saúde e b) valor (absoluto) total das internações para os quatro grupos de doenças. Na análise estatística utilizou-se a distribuição de frequência simples, relativa e cálculo da média. O custo médio por internação foi mensurado pela divisão entre o valor total pago pelo Sistema Único de Saúde por grupo de doença e o número de internações hospitalares de cada grupo. **RESULTADOS:** O número total de internações hospitalares por doenças crônicas foi de 15.907 casos. Dentre as quatro morbidades avaliadas, as neoplasias e as doenças cardiovasculares se mostraram as mais prevalentes, com 9.881 e 4.125 internações, respectivamente. Para as neoplasias, houve a predominância de internações de mulheres (5.527), cuja faixa etária de 40 a 59 anos se destacou perante as demais. O sexo masculino teve maior participação para as doenças cardiovasculares (2.292 internações), com idade entre 55 e 69 anos (947 casos). Para ambos os sexos, a frequência de doenças respiratórias seguiu comportamento de queda, enquanto o diabetes se manteve estável no período. Evidenciou-se que o sistema de saúde apresentou um gasto total de 24.795,00 mil reais, sendo 13.539,91 mil reais para homens e 11.255,09 mil reais para mulheres. As doenças cardiovasculares (51,2%) e as neoplasias (43,6%) representaram a classes mais dispendiosas no período analisado. **CONCLUSÕES:** Os resultados podem contribuir para o acompanhamento da situação epidemiológica do município e subsidiar políticas de prevenção destas doenças.

PRM11: TRENDS OF RESEARCH RELATED BRAZIL PUBLISHED IN ISPOR MEETINGS: A BIBLIOMETRIC ANALYSIS FROM 1998 TO 2014

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OBJECTIVES: Health economics and outcomes evaluations has become an indispensable tool to guide decision-making processes regarding incorporation of new technologies. Since 2009, with the publication of methodological guidelines by REBRATS, followed by creation of the National Committee for Health Technology Incorporation (CONITEC), in 2011, health economics research are emerging in Brazil. Therefore, the aim of this study is to evaluate temporal trends and main areas of interest in scientific production in these fields by a bibliometric analysis. **METHODS:** A search in the ISPOR Scientific Presentations Database was performed, using the term “Brazil”

as keyword search in “Abstract” field, evaluating all results between 1998 and 2014. Abstracts were classified according to study characteristics (topic and subtopic), sponsorship and disease area.**RESULTS:** Among the total of 29,759 abstracts available in ISPOR presentation database, only 716 (2.4%) mentioned the term “Brazil” in the abstract, of which 169 (23.6%) the first author was not from Brazil and 325 studies (45%) were sponsored by pharmaceutical companies. Up to 2006, scarce publications were found. The majority of the studies (62.6%) was published from 2012 to 2014. The most studied diseases were cancer (16.9%), infection (5.9%), GI disorders (3.9%) and diabetes (3.1%) and 14.5% classified as “no specific disease”. In addition, 57.3% of the analyses were classified as “cost studies” and 24.1% as “Health care use & policy studies”. According to the subtopic, 140 (19.6%) were cost-effectiveness analysis and 73 (10.2%) budget impact analysis. **CONCLUSIONS:** This analysis showed a low rate of publication related to Brazil. On the other hand, the increasing number of published studies from 2012 may be related to CONITEC foundation. Thus, the rising number of studies observed over this period indicates an increase in importance of health economics as a support for health polices development and decision making process

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PRM12: TABAGISMO EM UNIVERSITÁRIOS: UMA REVISÃO SISTEMÁTICA DA LITERATURA

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OBJETIVOS: caracterizar a prevalência e o consumo de tabaco em universitários a partir de uma revisão sistemática da literatura, no período de 2003 a 2013. **MÉTODOS:** A busca de artigos publicados foi feita nas bases de dados eletrônicas LILACS; MEDLINE e SCIELO com os descritores tabagismo e universitários. A metodologia PRISMA -Preferred Reporting Items for Systematic Reviews and Meta-Analyses- para trabalhos de revisão sistemática foi usada na pesquisa. Na análise quantitativa dos dados coletados aplicou-se a distribuição de frequência simples, relativa e cálculo de média e na qualitativa, o critério de categorização.**RESULTADOS:** De 316 artigos encontrados, 62 foram incluídos por preencherem os critérios de inclusão. Deste total, a maioria foi publicada em espanhol (46,77%) e português (41,94%). Houve forte concentração de publicações nos anos de 2009 (19,35%), 2011 (22,58%) e 2012 (17,74%). A distribuição das publicações quanto áreas das revistas, em termos nacionais, mostrou que a saúde geral e a medicina tiveram maior número de publicações (19,35% para cada uma), seguida da enfermagem (14,51%). Para as revistas internacionais, a área de medicina se destacou em 19,35%, ficando a saúde geral com 12,90%. Sete eixos temáticos principais foram identificados, os quais foram distintos em termos de metodologia, mas estavam inter-relacionados sobre os aspectos: tabagismo e universitários da área da saúde (9); tabagismo e universitários de diversos cursos superiores (7); universitários, tabaco e outras drogas ilícitas (10); fatores que influenciavam o consumo tabágico em universitários (20); tabagismo e atividade física em universitários (6); universitários e medidas educativas sobre tabagismo (6) e malefícios do tabagismo em universitários (4). **CONCLUSÕES:** o tabagismo é um tema atual e relevante, pois apresentou um alto número de artigos publicados nos últimos anos; entretanto, estas publicações relatam divergências entre a prevalência e o consumo de produtos derivados do tabaco por universitários.

RESEARCH ON METHODS - Modeling Methods

PRM13: PERFIL DEL GASTO DE BOLSILLO EN MEDICAMENTOS ESENCIALES EN PANAMÁ, 2014

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OBJECTIVOS: Obtener los perfiles socioeconómicos que caracterizan el acceso a los medicamentos, con base en el poder adquisitivo, disponibilidad y uso racional. **METODOLOGÍAS:** Diseño muestral estratificado, con selección aleatoria en 6 dominios en el ámbito nacional, cubriendo zonas urbanas, rurales e indígenas. Encuesta multipropósito de línea de base. La muestra fue de 2,696 individuos de 15 años y más. El instrumento recogió información sobre las características socioeconómicas, condiciones de salud, gasto, financiación, acceso, disponibilidad y uso racional de los medicamentos. El análisis estadístico, se realizó con el software SPSS 20.0. **RESULTADOS:** Las comarcas indígenas son las más pobres según la distribución del ingreso en el primer quintil, 41.9% en la Ngäbe Buglé y 62.7% en Madugandí. Las enfermedades crónicas (circulatorias y diabetes) y las infecciosas (diarrea, infecciones generales y malestar estomacal), son las principales morbilidades. El gasto promedio general fue USD 83.25, siendo en diabetes USD 96.81 en las diarreas, infecciones y malestar estomacal con USD 96.80. El 43.3% financia parcialmente la compra con sus ingresos y 13.0% no cuenta con los mismos, 50% de los medicamentos estuvieron disponibles y 61% declaró que el precio es inaccesible. Mientras tanto, 29% consume medicamentos sin receta, siendo mayor en las comarcas Ngäbe Buglé con 59% y Madugandí con 35%. La elasticidad ingreso resultó de **0.20** (**t**=2.577, **p**=0.01) indicando que los medicamentos son productos necesarios, con relación a la edad, por cada año adicional, el gasto en medicamentos se incrementa en **2%** (**t**=3.779, **p**=0.000). Respecto a la tenencia de seguro social la probabilidad de comprar medicamentos se reduce en -0.201 o un riesgo relativo de compra de 0.818 (**Wald**=4.241, **p**=0.039). **CONCLUSIONES:** Existe una mayor vulnerabilidad de la población indígena, respecto al acceso a medicamentos. Se hace necesario desarrollar estrategias e intervenciones sanitarias para mejorar el acceso, disponibilidad y costo de medicamentos en Panamá.

PRM14: CALIBRATION OF PIECEWISE MARKOV MODELS USING A CHANGE-POINT ANALYSIS THROUGH AN ITERATIVE CONVEX OPTIMIZATION ALGORITHM

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OBJECTIVES: Relative survival represents cancer survival in the absence of other causes of death. Cancer Markov models often have a distant metastasis state, a state not directly observed, from which cancer deaths are presumed to occur. The aim of this research is to

use a novel approach to calibrate the transition probabilities to and from an unobserved state of a Markov model to fit a relative survival curve. **METHODS:** We modeled relative survival for newly diagnosed cancer patients through a piecewise Markov model. For each segment we used a constant transition matrix with three cancer states: 1) no evidence of disease, 2) metastatic recurrence and 3) cancer death. We estimated the optimal time points at which the slope of the cumulative hazard changes using a free-knot spline model. We calibrated the transition probabilities using a two-step iterative convex optimization (TICO) algorithm. The dynamics of the disease can be defined as xt+1= xtA, where xt+1 is the state vector that results from the transformation given by the monthly transition matrix A. A is a piecewise block-diagonal matrix that includes a block-diagonal matrix (i.e. A1, A2, A3) in each segment. **RESULTS:** We applied our method to model relative survival for stage 3 colorectal cancer patients 75 years old and younger. The estimated change points were at months 9 and 37. We compared our piecewise calibration method to a single-segment Markov model. While the single-segment converged faster, the piecewise method improved the goodness of fit by 50%. **CONCLUSIONS:** By estimating the change points in the relative survival we were able to find the optimal transition probabilities for a piecewise Markov model. This model allowed us to impose a particular structure defined by the progression of the disease. We propose a piecewise calibration method that produces more accurate solutions compared to a single-segment approach.

RESEARCH ON METHODS - Statistical Methods

PRM15: APPLIED COMPARISON OF META-ANALYSIS TECHNIQUES

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OBJECTIVES: Meta-analysis is an approach that combines findings from similar studies. The aggregation of study level data can provide precise estimates for outcomes of interest, allow for unique treatment comparisons, and explain the differences arising from conflicting study results. Proper meta-analysis includes five basic steps: identify relevant studies; extract summary data from each paper; compute study effect sizes, perform statistical analysis; and interpret and report the results. This study aimed to review meta-analysis methods and their assumptions, apply various meta-techniques to empirical data, and compare the results from each method. **METHODS:** Three different meta-analysis techniques were applied to a dataset looking at the effects of the bacille Calmette-Guerin (BCG) vaccine on tuberculosis (TB). First, a fixed-effects model was applied; then a random-effects model; and third meta-regression with study-level covariates were added to the model. Overall and stratified results, by geographic latitude were reported. **RESULTS:** All three techniques showed statistically significant effects from the vaccination. However, once covariates were added, efficacy diminished. Independent variables, such as the latitude of the location in which the study was performed, appeared to be partially driving the results. **CONCLUSIONS:** Meta-analysis is useful for drawing general conclusions from a variety of studies. However, proper study and model selection are important to ensure the correct interpretation of results. Basic meta-analysis models are fixed-effects, random-effects and meta-regression.

RESEARCH ON METHODS - Study Design

PRM16: CHOLIC ACID DECREASES THE DISTRIBUTION COEFFICIENT OF SIMVASTASTIN: A POTENTIAL FOR INCREASING SIMVASTATIN BIOAVAILABILITY

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OBJECTIVES: Distribution coefficient is used as a quantitative measure for assessing a drug molecule affinity for the biological membranes. Since bile acids are known for their function as modifiers of drug penetration across biological membranes, the aim of this study was to estimate the influence of cholic acid (CA) on the distribution coefficient of simvastatin (SV) which is a highly lipophilic compound with extremely low water-solubility and bioavailability. **METHODS:** Distribution coefficients and logD of SV with or without CA were measured by shake-flask method in n-octanol/buffer systems at pH 5 and pH 7.4. SV concentrations in aqueous phase were determined by HPLC-DAD. In order to analyse theoretically complexation of SV with CA, semi-empirical PM3 method implemented in MOPAC software package in the Chem3D Ultra program has been applied. **RESULTS:**Upon addition of CA, statistically significant decrease of SV logD was observed at both selected pH values (from 4.70±0.01 to 4.41±0.13 at pH 5, and from 4.59±0.06 to 4.40±0.04 at pH 7.4). Analysing the molecular aggregates of SV with CA, it was observed that CA is bonded to SV by hydrophobic interactions, while OH groups are oriented towards the outer side of the aggregate. Hence, the formed aggregate is more hydrophilic than SV molecule alone. **CONCLUSIONS:** Our data indicate that CA decreases the values of SV distribution coefficient. This may be the result of the formation of hydrophilic complexes increasing the solubility of SV that could consequently lead to the increase of SV bioavailability. In order to confirm these results, further in vivo investigations of their interactions at molecular level need to be undertaken. Acknowledgement: This work is supported by Ministry of Education, Science and Technological Development of Serbia, Project III41012.

PRM17: COMPARISON OF CHRONIC HEPATITIS C TREATMENT EFFICACY IN RANDOMIZED CONTROLLED TRIALS AND REAL-LIFE STUDIES - INFLUENCE OF STUDY DESIGN IN THE SUSTAINED VIROLOGICAL RESPONSE: A SYSTEMATIC

REVIEW OF PUBLISHED LITERATURE

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OBJECTIVES: To assess whether hepatitis C treatment outcome was similar among different study designs. **METHODS:** Two independent reviewers conducted a double-screened systematic review on hepatitis C treatment. Studies were categorized under study design: randomized controled trials (RCT), pragmatic trials (PRG) and registries; and treatment course: pegylated interferon and ribavirin (IR), IR and boceprevir (BCP), IR and telaprevir (TLP). 3,713 abstracts were retrieved, and 253 studies were included according to previously selected criteria, comprising 77,042 patients. Sustained virological response (SVR) was stablished as treatment end-point. Mann-Whitney-U and Kruskall-Wallis tests were used with a 95% CI. **RESULTS:** In the IR group, registries had a lower SVR than PRG (P=0.039) and than RCT (P=0,3368). RCT had a worse outcome than PRG (P=0.283). Statistical difference was seen among the three BCP groups (P=0.040), and RCT had a higher SVR than registries (P=0.028). BCP PRG group couldn't be analysed in comparison to other study designs due to a very small group. PRG (SVR=80.13%) had a better outcome than RCT (SVR=75.00%) and than registries (SVR=62.00%), but tests have shown no statistical significance among study designs (P>0.05). **CONCLUSIONS:**It's possible to design close to the real-life settings RCT. Though it's not a rule, each drug should be studied separately and its clinical scenario considered. PRG might be not as pragmatic as they claim to be, as their results were more similar to RCT than to registries. Further analysis should assess whether PRG are fully bridging RCT's gap to the real-life settings, as they are intent to be the main guide to drug's embodiment to the clinical practice. Also, boceprevir was less studied than telaprevir, and whether remains unclear which drug is more effective, new data could answer that, specially a large proportions head-to-head RCT comparing both drugs. Although, as of new and better treatment courses are approved, this RCT most probably will not be done.

RESEARCH ON METHODS - Conceptual Papers

PRM18: ENGAGING HISPANIC CAREGIVERS IN RESEARCH: A FRAMEWORK TO DESIGN CULTURALLY SENSITIVE APPROACHES FOR ENGAGEMENT IN PATIENT-CENTERED OUTCOMES RESEARCH

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The Latin American perspective on caregivers' preferences is underrepresented in research largely due to lack of culturally sensitive approaches to enhance research literacy. Identification of the most effective engagement strategies is needed so that patient centered outcomes research (PCOR) can address the needs and priorities of caregivers of Latin American origin. Our objectives were to develop a methodological framework for engaging caregivers of Latin American origin in research and to improve PCOR literacy in this population. The 'pre-engagement' framework with hard-to-reach patients was used in a study designed to identify caregivers' priorities for treatment and outcomes in children of Hispanic origin living in the U.S. with complex mental health conditions. Based on the principles of community based participatory research, the pre-engagement implementation phases were: 1. Identify Hispanic community leaders with common goals; 2. Partner with leaders to select key topics of interest; 3. Design culturally appropriate strategies; 4. Implement pre-engagement strategies. During phase 1, academic partnerships were developed with community leaders to allow integration into the research process. Community needs and practical challenges to engage caregivers and the strategies to overcome barriers were identified during phase 2. In phase 3, a series of four workshops, delivered in Spanish, were designed as interactive activities each addressing a unique challenge: understanding the caregiver's perspective, understanding the child's perspective, providing behavior management strategies, and discussing community resources for families. Each workshop emphasized research literacy by linking the benefit of research in advancing the challenge being discussed. An outcome of this work will be a caregiver resource guide in Spanish, developed by Hispanic community leaders, for distribution in their communities. In the absence of culturally appropriate tools to address health and medical preferences of non-English speaking communities, this framework can be used to engage caregivers and communities in patient-centered research.

PRM19: O MÉTODO PARACONSISTENTE COMO SUPORTE ÀS TOMADAS DE DECISÃO EM SAÚDE

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Introdução: O presente estudo objetiva apresentar a Lógica Paraconsistente Anotada Evidencial (LPAE), que é a base teórica para o modelo proposto de suporte às tomadas de decisão em saúde. **Desenvolvimento:** A Lógica Paraconsistente é uma opção metodológica que permite manipular dados imprecisos, inconsitentes e paracompletos. A aplicação do método consiste basicamente de oito etapas: 1-fixar o nível de exigência da decisão que se pretende tomar; 2-selecionar os fatores mais importantes e de maior influência na decisão; 3-estabelecer as seções para cada um dos fatores; 4-construir a base de dados que é constituída pelos pesos atribuídos aos fatores e pelos valores de evidência favorável e de evidência contrária atribuídos a cada um dos fatores em cada uma das seções (os pesos e os valores das evidências são atribuídos por especialistas selecionados para o estudo); 5-fazer a pesquisa de campo para verificar, no caso em análise, em que seção (condição) cada um dos fatores se encontra; 6-obter o valor da evidência favorável e o valor da evidência contrária resultantes para cada um dos fatores escolhidos, por meio da aplicação das técnicas de maximização e minimização da LPAE; 7- obter o grau de evidência favorável e o grau de evidência contrária do baricentro dos pontos que representam os fatores escolhidos no reticulado paraconsistente; 8-tomar a decisão, aplicando-se a regra de decisão ou algoritmo para-analisador. **Conclusão:** Em situações em que a tomada de decisão precisa ser realizada em curto período de tempo, transferir e

adaptar avaliações econômicas realizadas em outros contextos pode ser uma necessidade considerável. O método paraconsistente pode contribuir nesse processo, apoiando o trabalho das comissões hospitalares de avaliação e incorporação de tecnologias em saúde.

DISEASE- SPECIFIC STUDIES

CANCER - Clinical Outcomes Studies

PCN1: PHARMACOVIGILANCE IN ONCOLOGY: KNOWLEDGE AND PERCEPTION ON ADVERSE EVENTS REPORTING IN BRAZIL

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OBJECTIVES: Pharmacovigilance represents an important tool to support the maintenance of drug safety through evaluation of spontaneous adverse events (AE) reporting. AEs represent one important cause of morbidity and mortality worldwide when not managed correctly, being very frequent, especially during oncology treatments. However, underreported phenomenon occurs often due inefficient spontaneous reporting by patients, physicians and caregivers. Therefore, the aim of this survey was to evaluate the knowledge and perception related to pharmacovigilance in Brazil. **METHODS:** From February to March 2015, 260 respondents answered an internet-based survey related to knowledge on pharmacovigilance from Oncoguia Institute, an independent nonprofit cancer advocacy institution. Descriptive analyses were performed according to answers frequency.**RESULTS:** Among the respondents, 70.8% were diagnosed with cancer, of which breast cancer was the most frequent (58%) followed by colorectal cancer (4%). Reported treatment included chemotherapy (96%), surgery (84%), 48% radiotherapy (48%). Of all, 46% and 44% were treated by public and private health insurance, respectively. Most of the respondents were not aware of the importance of a pharmacovigilance AE report (52%). In fact, 21% of the respondents were not aware of what AEs are. In 66% of the cases, physicians have described the main AE expected to the prescribed treatment. Respondents reported nausea (80%), hair loss (77%), weight gain (49%) and vomiting (45%) as the most common AEs. Only 7% and 4% of the respondents were aware that AEs could be reported to pharmaceutical industry and ANVISA, respectively. **CONCLUSIONS:** This survey demonstrates that knowledge and perception regarding AEs, such as definition, importance and how to proceed in case of having one, including the importance of pharmacovigilance system, are very reduced among common public, including cancer patients. Therefore, there is an enormous need for educational intervention regarding AEs reporting importance in general public, patients and physicians, especially in oncology.

PCN2: EFICACIA Y SEGURIDAD DEL USO DEL CETUXIMAB EN PACIENTES CON CANCER COLORRECTAL METASTÁSICO

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OBJECTIVOS: Determinar la eficacia y seguridad de Cetuximab solo o asociado a otros fármacos en el tratamiento del cáncer colo-rectal metastásico comparado a los tratamientos actualmente disponibles**METODOLOGÍAS:** Se realizó una búsqueda bibliográfica de revisiones sistemáticas y Ensayos Clínicos Aleatorizados (ECAS) en bases electrónicas Cochrane, Pubmed y Lilacs, que compararan ramas de tratamiento con y sin Cetuximab **RESULTADOS:** Se seleccionaron 2 revisiones sistemáticas y 8 ECAS. Los resultados para los puntos finales de eficacia y seguridad en la población general fueron: Sobrevida Global (SG) HR 0,97 [0,89-1,05], Sobrevida Libre de Progresión (SLP) HR 0,84 [0,70-0,98], eventos adversos (EA) grado 3-4 HR 2,15 [1,88-2,45] y reacciones de piel 44,5 [22,1-89,5]. En la población KRAS wild la SG fue HR 0,796 IC95% [0,670-0,946] en el estudio de Van Cutsem, HR, 0,855 IC95% [0,599-1,219] en el estudio de Bokemeyer, 1,04 IC95% [0,87-1,23] en el estudio de Maughan y HR 0,55 IC95% [0,41-0,74] en el estudio de Jonker. Para la SLP en población KRAS wild los resultados fueron HR 0,57 IC95% [0,38-0,86] en el estudio de Bokemeyer, HR 0,40 IC95% [0,30-0,53] en el estudio de Jonker, HR 0,96 IC96% [0,82-1,12] en el estudio de Maughan y HR 0,70 IC95% [0,56-0,87] en el estudio de Van Cutsem **CONCLUSIONES:** Los resultados analizados muestran un incremento en la SG en pacientes con KRAS wild y de la SLP. También se constata un incremento en la ocurrencia de EA graves. Considerando los resultados de eficacia y seguridad para Cetuximab, se recomienda realizar un estudio de costo-efectividad para decidir su posible inclusión en el FTM. En este sentido, no debe darse por concluida la evaluación hasta contar con dicha información.

PCN3: HEMATOLOGICAL TOXICITIES ASSOCIATED WITH PAZOPANIB USE IN CANCER PATIENTS: A META-ANALYSIS

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OBJECTIVES: To perform an up-to-date meta-analysis of trials to evaluate the risk of pazopanib-related hematologic toxicities. **METHODS:** Several databases were searched including PubMed, Scopus, Web of Science, trial registries and Cochrane databases. Eligible studies were phase II and III prospective clinical trials of patients with cancer assigned drug pazopanib 800 mg/day with data on hematologic toxicities. Overall incidence rates, relative risk (RR), and 95 % confidence intervals (CI) were calculated employing fixed or random effects models depending on the heterogeneity of the included trials. **RESULTS:** A total of 3972 patients were included from 17 clinical trials. The incidences of pazopanib-associated all-grade anemia, neutropenia, thrombocytopenia and lymphopenia were 30.5%, 26.9%, 20.6% and 32.8%, respectively. The incidences of high-grade events were 3.9%, 4.0%, 2.8% and

5.8%, respectively. Pazopanib is associated with significant risk of all-grade (RR = 4.20, 95% CI, 3.16 – 5.56) and high-grade (RR = 6.12, 95% CI, 3.07 – 12.23) neutropenia, all-grade (RR = 6.27, 95%, CI, 4.10 – 9.57) and high-grade (RR = 3.59, 95% CI, 1.30 -9.91) thrombocytopenia. **CONCLUSIONS:** This is the first meta-analysis to demonstrate a significantly increased risk of all-grade and high-grade neutropenia and thrombocytopenia with pazopanib compared with control. Clinicians should be aware of this risk and provide close monitoring in patients receiving these therapies.

PCN4: COMPARAÇÃO DE TRATAMENTOS PARA CÂNCER DE CABEÇA E PESCOÇO AJUSTADO POR ESCORE DE PROPENSÃO: RADIOTERAPIA VERSUS CIRURGIA+RADIOTERAPIA

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OBJETIVOS: Avaliar a sobrevida dos pacientes com câncer de cabeça e pescoço (CCP) avançado (estadiamento clínico III e IV) que receberam tratamento com radioterapia ou cirurgia+radioterapia, através do método de estratificação pelo escore de propensão (EP). **MÉTODOS:** Participaram 391 pacientes de uma coorte com CCP avançado (III e IV), recrutados para um estudo multicêntrico brasileiro (1998 e 2008). O EP foi calculado por meio de regressão logística para as seguintes variáveis de confundimento: idade, sexo, escolaridade, tabagismo, alcoolismo e localização do tumor. O desfecho avaliado foi óbito com cálculo dos riscos relativos (RR) e intervalo de confiança de 95% (IC95%), conforme o modelo de regressão de Cox univariável e múltipla. **RESULTADOS:** Os EP's variaram de 0,3145 a 0,8901. Com a utilização do modelo de regressão de Cox ajustado pelas variáveis de confusão o RR para cirurgia+radioterapia foi de 0,343 (IC95% 0,260-0,452; p<0,001). Após a estratificação pelo EP para tercil, 3 grupos foram formados com 129 pacientes no primeiro e segundo tercis e 28 pacientes no terceiro. Na regressão de Cox foram obtidos os seguintes resultados: primeiro tercil RR=28,64 (IC95%; p<0,001), segundo RR=19,77(IC95%; p<0,001) e o terceiro RR=17,75 (IC95%; p<0,001). A utilização do EP estratificado por tercil obteve RR=0,32 (IC95% 0,20-0,51; p<0,001) com um risco de morrer de 0,729 para o tratamento radioterapia; o segundo tercil com RR=0,37 (IC95% 0,23-0,60; p<0,001) apresenta risco de morrer de 0,63 para radioterapia; e o terceiro 0,27 (IC95% 0,15-0,49; p<0,001) com risco de morrer 0,73. **CONCLUSÕES:** A abordagem cirurgia+radioterapia apresentou maior efetividade nos dois métodos de avaliação, indicando um menor risco de morrer por esse tratamento. O EP permitiu aumentar a precisão e reduzir os vieses de seleção na comparação da efetividade terapêutica em estudos observacionais.

PCN5: OPTIMIZACION DE LA QUIMIOTERAPIA EN EL CÁNCER EPIDERMOIDE DE PULMON AVANZADO, ANTIMETABOLITOS O TAXANOS?

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OBJECTIVOS: El subtipo escamoso de cáncer de pulmon no microcítico (CPNM) constituye el 45% de todos los CPNM. El tratamiento de primera línea debe incluir cisplatino o carboplatino y un fármaco de tercera generación (taxanos, alcaloides de la vinca y antimetabolitos). No existe ningún estudio de fase III que analice cual es el doblete más activo en el CPNM subtipo escamoso. Nuestro estudio pretende dilucidar esta cuestión investigando como influyen en la supervivencia global (OS). **METODOLOGÍAS:** Desde enero de 2012 hasta la fecha actual, se han reclutado 82 casos de CPNM avanzado con histología escamosa. Se han tenido en cuenta las características clínicas, la presencia de metástasis cerebrales al diagnóstico, el empleo de antimetabolitos o inhibidores de microtúbulos. El análisis de OS se ha hecho según el método Kaplan Meier (log rank) y el análisis multivariado incluyendo la edad, el sexo y la presencia de metástasis cerebrales según el modelo de Cox. **RESULTADOS:** La mediana de edad fue de 70 años (50% mayores de 70 años), el 3,7% eran mujeres y el 2,4% presentaron metástasis cerebrales. La supervivencia global obtenida 8,246 meses CI95% [5,8–2,6]. Por subgrupos, el hombre presenta una OS de 8,3 meses frente a 3,2 de la mujer (P=0,006, HR=0,2) y los pacientes tratados con antimetabolitos 9,45 meses versus 5,7 meses en los tratados con inhibidores de los microtúbulos (p=0,018; HR=1,98). El uso de carboplatino o cisplatino o la presencia de metástasis cerebrales no implican un impacto en la supervivencia (p=0,26 y 0,59). En el análisis multivariado el género y el tipo de quimioterapia empleada son significativos (p=0,09 y 0,018 respectivamente). **CONCLUSIONES:** El tratamiento de los pacientes con CPNM variedad escamosa debe incluir antimetabolitos en la primera línea independientemente del tipo de platino empleado. El género femenino implica un peor pronóstico. Se necesitan estudios clínicos que confirmen estos datos

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PCN6: TRASTUZUMAB EMTANSINE FOR HER2 POSITIVE BREAST CANCER PATIENTS: AN UPDATED SYSTEMATIC REVIEW

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OBJECTIVES: Trastuzumab emtansine is a drug used in patients affected by metastatic breast cancer HER-2 positive that did not respond to available treatments. The administration of this drug can provide a substantial impact on reducing the need to perform mastectomies as well as increasing the life expectancy of a high number of patients, once breast cancer is associated to high mortality and incidence rates. The main objective of this study is to collect evidences of efficacy and safety of this treatment option. **METHODS:** Evidences were found determining key terms to research strategy and its utilization in databases. Inclusion criteria were defined according to the PICO question developed and included clinical trials, observational studies, systematic reviews and meta-analyses. No filters were utilized to publication year or study language. No exclusion criteria were performed. **RESULTS:** The

research collected evidences from 7 clinical trials, 1 observational study, 1 systematic review and none meta-analysis. Randomized trials compared trastuzumab emtansine with lapatinib and capecitabine in combination or physician's choice. Main efficacy outcomes observed in these studies were progression free-survival, overall survival, response rates (complete, partial and/or objective) and time until disease progression, which were improved by trastuzumab emtansine in comparison with other treatment options. According to safety evaluations, it was observed that patients treated with trastuzumab emtansine had lower severity and frequency of adverse events than patients who received other option in addition to present a favorable cardiotoxicity profile. **CONCLUSIONS:** Due to the results observed in the collected studies, trastuzumab emtansine provided a higher life expectancy to the enrolled patients and was well tolerated. In comparison to available treatments, this drug caused less severity adverse events in most of cases. Trastuzumab emtansine was more effective in HER2 positive breast cancer than patients with negative disease to this protein.

PCN7: UTILIZAÇÃO DO ESCORE DE PROPENSÃO NA COMPARAÇÃO DE DUAS OPÇ'ES TERAPÊUTICAS EM PACIENTES COM CARCINOMA EPIDERM"IDE DE CABEÇA E PESCOÇO, BRASIL 1998-2008

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OBJETIVOS: Comparar o efeito de duas modalidades terapêuticas (cirurgia e radioterapia) na sobrevida de pacientes com câncer de cabeça e pescoço (CCP) utilizando ométodo de pareamento pelo escore de propensão. **MÉTODOS:** Coorte com 561 pacientes com CCP, participantes de um estudo multicêntrico em oito centros clínicos do Brasil (1998 a 2008),foram incluídos na análise. O cálculo dos escores de propensão foi realizado pela regressão logística considerando as variáveis de confundimento: gênero, idade no diagnóstico, nível de escolaridade, consumo de tabaco e álcool, estadiamento clínico e localização do tumor.O desfecho principal foi o óbito, e foram calculadas as razoes de chances (RC) e seus respectivos intervalos de confiança de 95% (IC95%) segundo o modelo de regressão logística não condicional e condicional univariável e múltipla. **RESULTADOS:** Os valores do escore de propensão variaram de 0,0524 a 0,7275.no modelo convencional ajustado pelas variáveis de confusão o valor da RC para a radioterapia foi de 6,68 (IC95% 4,1-10,9; p<0,001). Quando utilizado o escore de propensão como variável de ajuste, os pacientes que receberam radioterapia tiveram RC de 6,9 comparado com aqueles que fizeram cirurgia (IC95% 4,5-10,5; p<0,001). Após o pareamento pelo escore de propensão, 195 pares foram formados, e pacientes que receberam radioterapia tiveram uma RC de 12,8 comparado com pacientes que fizeram cirurgia (IC95% 4,5-37; p<0,001).**CONCLUSÕES:** Observamos um efeito maior do tratamento cirúrgico antes e após a utilização do ajuste pelo escore de propensão, ou seja, menor risco de morte. Os critérios para a construção do escore de propensão precisam de conhecimento das variáveis relacionadas com o desfecho e o tratamento, e não necessariamente obedecem a critérios estatísticos.

PCN8: EFICACIA DE DOCETAXEL EN PACIENTES CON CÁNCER DE PROSTATA RESISTENTE A CASTRACI"N EN PRIMERA LÍNEA DE TRATAMIENTO

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OBJECTIVOS: El cáncer de próstata es el primer tumor en incidencia en el varón. El tratamiento de primera línea del cáncer de próstata resistente a castración (CPRC) incluye el docetaxel, enzalutamida y la abiraterona. La supervivencia global (OS) del CPRC actualmente alcanza los 30. Tras la publicación del estudio CHAARTED el posicionamiento de docetaxel se sitúa en primer lugar. El objetivo primario es comparar nuestros datos de supervivencia de los pacientes diagnosticados de CPRC tratados con docetaxel. **METODOLOGÍAS:** Desde enero de 2010, se han reclutado un total de 67 pacientes en seguimiento en Consulta de Oncología Médica diagnosticados de CPRC tratados con docetaxel. Se han analizado las características clínicas del paciente, el estado sintomático/asintomático en el momento de la primera visita, el PSA, el gleason y las localizaciones metastásicas. El análisis de la supervivencia global se ha hecho según el método Kaplan Meier (log rank). **RESULTADOS:** La mediana de edad fue de 71 años, el 61% presentaba un gleason indiferenciado al diagnóstico y la localización metastásica más frecuente fue la ósea (90,9%). La mediana de PSA fue de 58,2 ng/mL. El 70% de los pacientes estaban sintomáticos siendo el dolor el síntoma más frecuente (74,4%). El 81% de los pacientes obtienen beneficio clínico tras el primer mes de tratamiento. La supervivencia global obtenida ha sido de 28,1 meses. Haciendo un análisis por subgrupos, el estado asintomático al inicio de la quimioterapia con docetaxel supone una mejor supervivencia (p=0,000). Por el contrario, el PSA al inicio de la quimioterapia no implican un impacto en la supervivencia (p=0,200). **CONCLUSIONES:** El estado asintomático previo al inicio del tratamiento con docetaxel es el factor pronóstico primordial. Por tanto, el inicio precoz del tratamiento con docetaxel en pacientes con cáncer de próstata resistente a la castración es mandatorio.

PCN9: REAL-WORLD PATIENT CHARACTERISTICS, TREATMENT PATTERNS, AND SURVIVAL AMONG LOCALLY-ADVANCED/METASTATIC ALK+ NON-SMALL CELL LUNG CANCER PATIENTS IN LATIN AMERICA

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OBJECTIVES: To describe patient characteristics, treatment patterns, and survival among Latin American patients diagnosed with locally-advanced/metastatic ALK+ non-small cell lung cancer (NSCLC). **METHODS:**Mexican and Argentine oncologists (N=5) reviewed

patient charts and reported characteristics, treatment patterns, and survival on their patients diagnosed with ALK+ locally-advanced/metastatic NSCLC. Treatment duration and overall survival (OS) were estimated using Kaplan-Meier analyses. **RESULTS:** Patients (N=25) averaged 57 years old when diagnosed with locally-advanced/metastatic NSCLC; 64% were female, 56% were Hispanic, 44% were Caucasian, 48% were uninsured, and 24% were unemployed or on sick leave. Smoking history varied (36% never-smokers, 20% light/moderate smokers, and 32% heavy smokers). At primary diagnosis, 72% had metastatic disease. Over the course of their disease (until end of follow-up), 48% of patients developed brain metastases, 20% bone, and 32% lung. In first-line therapy, 17 patients (68%) received chemotherapy and six patients (24%) received crizotinib. After first-line chemotherapy, six patients (24%) received crizotinib. 13 patients (52%) never received an ALK inhibitor; of these, nine patients (69%) did not receive crizotinib because they could not afford it or crizotinib was not covered by insurance. Out of the 12 patients who received crizotinib, three died, and eight discontinued by the end of follow-up (median duration of 127 days), with three patients switching to chemotherapy, one to afatinib, and four receiving no further antineoplastic therapy. After diagnosis of locally-advanced/metastatic NSCLC, the OS rate among all patients was 74% at 12 months. **CONCLUSIONS:** Though the sample size is small, the study provides the first analysis of patient characteristics, treatment patterns, and survival among ALK+ NSCLC patients in Latin America. Many patients were women, uninsured, never received an ALK inhibitor, and their OS was low. These findings suggest that there could be an unmet need for access to effective treatments for ALK+ NSCLC patients in Latin America.

PCN10: INDICAÇÃO DO MEDICAMENTO TALIDOMIDA PARA O TRATAMENTO DE MIELOMA MÚLTIPLO: UMA AVALIAÇÃO PARA ATUALIZAÇÃO DA RENAME

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OBJETIVOS: Avaliar as evidências quanto ao uso da talidomida no tratamento de mieloma múltiplo, para posterior inclusão na RENAME 2016. A Relação Nacional de Medicamentos Essenciais no Brasil está passando por um processo de atualização, onde será avaliado todo o conjunto de medicamentos, segundo os critérios de eficácia e segurança. Por não constar na RENAME 2014 a talidomida 100 mg, comprimido, foi identificada a necessidade do Núcleo de Pesquisa em Inovação e Avaliação de Tecnologias em Saúde (NUPIATS), apresentar resposta à solicitação de inclusão da talidomida para o tratamento de mieloma múltiplo. **MÉTODOS:** A pesquisa na literatura foi realizada em 01/03/2015 nas bases de dados: BMJ – Best Practice, Dynamed e UpToDate. Optou-se por utilizar base de dados com síntese de evidências por se tratar de uma questão clínica e por resgatar informações originais comentadas e avaliadas criticamente, de acordo com a metodologia preconizada pela epidemiologia clínica. A busca por evidências utilizou os descritores MeSH, “Multiple Myeloma”.**RESULTADOS:** De acordo com as evidências encontradas no BMJ – Best Practice e Dynamed, a talidomida é indicada para o tratamento de indução de pacientes candidatos ou não a transplantes, tratamento de manutenção pós-transplante ou doença refratária. Algumas evidências indicam que o tratamento combinado da talidomida com lenalidomida ou bortezomib parece ser mais efetivo comparado aos tratamentos convencionais. De forma semelhante ao identificado nas bases anteriores, as evidência localizadas no UpToDate, apresenta a talidomida como opção de tratamento para mieloma múltiplo. Alguns estudos relatam que a manutenção da talidomida (50-400 mg por dia) prolonga a sobrevida livre de doença e melhora a sobrevida global. Ademais, a talidomida é aprovada pelo órgão americano FDA para terapia de indução em pacientes com mieloma múltiplo. **CONCLUSÕES:** Portanto, conforme os dados apresentados em evidências para indicação terapêutica de Mieloma Múltiplo, recomendamos a inclusão da talidomida, dose 100 mg (comprimido) na RENAME 2016.

PCN11: IMPACTO EN LA SUPERVIVENCIA DE LA GESTION Y ATENCION DE PACIENTES CON CÁNCER DE PROSTATA. INSTITUTO DE CANCEROLOGÍA LAS AMÉRICAS, MEDELLÍN (COLOMBIA), 2013

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OBJECTIVOS: El cáncer de próstata es el segundo motivo de consulta en el Instituto de Cancerología Las Américas (IDC) de Medellín (Colombia) con 10% del total de casos nuevos al año. estimar el impacto de variables de la atención en la supervivencia de pacientes con cáncer de próstata en el IDC en 2013. **METODOLOGÍAS:** estudio de supervivencia retrospectivo con información del Registro institucional de información, que contiene variables demográficas, de vinculación al sistema de seguridad social (contributivo/subsidiado), clínicas, de tratamiento y seguimiento. A lo largo del flujo de pacientes en la institución se identificaron problemas en los aspectos de referencia del paciente, diagnóstico, tratamiento, seguimiento y supervivencia. **RESULTADOS:** se incluyeron 1008 pacientes con cáncer de próstata, distribuidos por estadios y régimen de vinculación: I, 28% vs. 13%; II, 55% vs. 51%; III, 8% vs. 17% y IV, 9% vs. 19% en los regímenes contributivo y subsidiado respectivamente. La supervivencia global a 5 años fue 88% en el contributivo y 81% en el subsidiado. Las problemáticas encontradas y su impacto en la supervivencia fueron: (1) Retraso y/o falta de adherencia en radioterapia, que la incrementaría en 17% si se aplicara oportunamente; (2) Uso inadecuado de hormonoterapia que aumentaría la supervivencia en 45% si se aplicara sin retraso y no en estadios tempranos; (3) Demora y/o uso inadecuado de cirugía, la incrementaría en 48% si se hiciera en pacientes jóvenes y estadios tempranos; y (4) Retraso y/o falta de adherencia en quimioterapia que mejoraría la supervivencia en 26 % si se administrara sin retrasos e interrupciones. **CONCLUSIONES:** supervivencia de pacientes con cáncer de próstata en el IDC es comparable con estándares internacionales, pero puede prolongarse con mejoras en la gestión institucional, más eficientes modelos de compra de fármacos, contrataciones con aseguradoras, diagnósticos oportunos y mayor cumplimiento de los tratamientos según guías internacionales.

PCN12: FACTORES PRONOSTICOS DE SOBREVIDA EN LA NEOPLASIA TROFOBLASTICA GESTACIONAL

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OBJECTIVOS: Identificar factores pronósticos para la sobrevida de las pacientes con Neoplasia Trofoblástica Gestacional. **METODOLOGÍAS:** Se realizó estudio observacional, longitudinal, retrospectivo, descriptivo y analítico. Se estudió una población fija y cerrada, basada en el registro de las pacientes que se les diagnosticó Neoplasia Trofoblástica y que llevaron su seguimiento en el Hospital de Ginecología Obstetricia del Centro Médico Nacional la Raza, de diciembre del año 2007 a Enero 2014, se revisaron sus expedientes para identificar los factores pronósticos de la Neoplasia Trofoblástica Gestacional, y analizar su sobrevida. Se incluyeron pacientes con diagnóstico de mola completa, parcial, tumor del sitio placentario, coriocarcinoma. Se medición de variables (factores pronósticos) y su asociación con la sobrevida, buscando diferencias estadísticas, tomando como significativo una $p \leq 0.05$. La supervivencia global se estimó mediante el método de Kaplan-Meier. **RESULTADOS:** Durante 7 años (2007-2014) fueron observadas 56 pacientes con enfermedad trofoblástica gestacional. Fueron un total de 15 pacientes con coriocarcinoma, 21 pacientes con mola parcial, 15 pacientes con mola completa y 5 pacientes con tumor del sitio placentario. La tasa de supervivencia global fue de un 82.14 %. Se demostró un mayor riesgo de mortalidad para la estirpe histológica del coriocarcinoma y para el periodo mayor o igual 48 meses, por consiguiente disminución de la sobrevida global con un valor de $P < 0.05$. **CONCLUSIONES:** Los factores pronósticos de mayor impacto en la sobrevida en las pacientes con Neoplasia Trofoblástica Gestacional fueron: •Periodo intergenésico mayor de 48 meses 3.3 veces mayor riesgo de muerte. •Estirpe histológico de coriocarcinoma 2.03 veces mayor riesgo. •Etapa IV de la FIGO con una sobrevida nula a 60 meses.

CANCER - Cost Studies

PCN13: THE ECONOMIC VALUE PROPOSITION OF HAND-SEWN SUTURE VERSUS STAPLED ANASTOMOSES DURING RIGHT COLON SURGERY

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OBJECTIVES: Ileocolic anastomoses are performed for right-sided colon cancer and Crohn's disease. Anastomotic leak complications are a significant source of patient morbidity and mortality and may have a major impact on health care costs. Prior studies (e.g. Choy PYG, 2011 Cochrane Review) have estimated a significant reduction in post-operative leak rate following stapled anastomosis creation versus sutured (2.49% vs. 6.14%). The objective of this analysis was to assess whether the clinical benefit also reflected an economic benefit for right colon resection surgery. **METHODS:** A budget impact model was developed to compare intraoperative and post-operative costs of right colon surgeries using either a hand-sewn sutured approach or a stapled approach to anastomosis creation. Cost inputs to the model included intraoperative material costs (stapler, linear cutter, reloads and sutures), operating room and anesthesia time cost for creation of anastomosis, overall surgery and readmission costs. Other inputs included time for anastomosis creation and anesthesia, post-operative leak rate and reoperation rate. Sensitivity analyses were performed for all relevant variables. Budget impact was calculated on an annualized basis of 100 surgical procedures. As initial analysis, local pricing and cost data were used for Brazil SUS, with a goal of expanding the analysis to other Latin American countries subsequently. All currencies were converted to US$ for ease of comparison across countries.**RESULTS:** A substantially favorable annual budget impact was demonstrated for Brazil, with an annual savings of $33,136.00 for the hospital, which was equivalent to a $331 savings per patient. The economic value was primarily driven by lower reoperation rates. Further data are being collected to assess similar budget impact in selected Latin American countries. **CONCLUSIONS:** The clinical benefit of stapled anastomosis creation of right colon resection surgery is expected to be accompanied by a strong potential economic benefit – as estimated for hospitals in Brazil.

PCN14: IMPACTO ECONÓMICO DEL USO DE VISMODEGIB EN EL TRATAMIENTO DE PACIENTES CON CARCINOMA BASOCELULAR LOCALMENTE AVANZADO EN VENEZUELA

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OBJECTIVOS: estimar el costo por año de vida y años de vida ajustados por calidad en pacientes con carcinoma basocelular localmente avanzado, tratados con vismodegib frente a tratarlos con radioterapia secundaria.**METODOLOGÍAS:** se diseñó un modelo de Markov, con un horizonte temporal hasta la muerte, bajo ciclos semanales, que simula la historia natural de pacientes adultos con carcinoma basocelular localmente avanzado, inapropiados para cirugía. Se utilizaron tres estados de salud: libres de progresión, progresión y muerte; utilizando réplicas de curvas de eventos de Kaplan-Meier, tanto para progresión como para sobrevida. Las probabilidades requeridas para la estimación del modelo fueron estimadas de los estudios ERIVANCE y STEVIE. Como desenlaces se utilizaron los años de vida ajustados por calidad y costos totales. Los costos de servicios fueron extraídos de bases de datos venezolanas, mientras que los de medicamentos fueron estimados con fuente del Ministerio del Poder Popular para la Salud. Además, se utilizó una tasa de descuento del 5% para costos y resultados. Por último, se realizó un análisis de sensibilidad tipo Montecarlo. **RESULTADOS:** los años de vida, los años ajustados por calidad y el costo medio (en bolívares fuertes) de un paciente localmente avanzado, tratado con vismodegib fue de 6,55, 4,77 y $1.210.554 respectivamente, mientras que con radioterapia fue de 6,44, 4,45 y $628.908. Por ende, vismodegib tiene una mejor eficacia, lo cual se refleja en más del 86 % de las iteraciones en el

análisis de sensibilidad. **CONCLUSIONES:** vismodegib es dominante frente a radioterapia secundaria en eficacia, bajo el desenlace de años de vida ajustados por calidad. Su costo medio de uso anual es de $184.636, lo cual representa un impacto bajo, dada una prevalencia baja de 3,3 por 100.000 y solo del 5% en estadios avanzados.

PCN15: BUDGET IMPACT ANALYSIS OF CARFILZOMIB FOR THE TREATMENT OF RELAPSED REFRACTORY MULTIPLE MYELOMA (MM) IN MEXICO

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OBJECTIVES: Multiple Myeloma (MM) is a hematological malignancy characterized by skeletal destruction, renal failure, anemia and hypercalcemia. Only 4 to 5% of the patients experience a survival of more than 10 years. The incidence reported worldwide was 114,251 new cases per year, with 1.5 cases per 100,000 residents. Given its low incidence, MM is considered orphan disease. The objective of the study is to estimate the budget impact to the Mexican public healthcare system when introducing Carfilzomib in the treatment of patients with refractory and relapsed MM who have received at least two previous treatments, including bortezomib and an immunomodulating agent. **METHODS:** A budget impact analysis was conducted using a 3 health states Markov model (progression-free, post-progression and death) with monthly cycle length. The budget impact of Carfilzomib was compared to the current standard treatment in Mexico (high-dose dexamethasone), while low-dose dexamethasone was assumed after progression, according to Mexican KOLs advice. The eligible population was based on the incidence rate (3/100,000) for MM in Mexico and an estimate of the percentage of relapsed and refractory patients from the literature. Only direct medical costs were accounted for drugs, procedures, laboratory tests and adverse events management. Costs were expressed in US dollars (Exchange rate $15.16/USD) **RESULTS:** After introducing Carfilzomib, incremental budget impact in the first 5 years wasestimated to have an average budget increase of .0033%. **CONCLUSIONS:** Assuming an increasing uptake of 5% per year, introducing Carfilzomib to the Mexican public healthcare system would on average increase budget by 0.0033%, being affordable in terms of funding and representing an effective and safe new therapeutic option for patients with relapsed and refractory MM.

PCN16: ESTIMATING THE BUDGET IMPACT OF SWITCHING FROM BORTEZOMIB INTRAVENOUS (IV) TO BORTEZOMIB SUBCUTANEOUS (SQ) IN THE TREATMENT OF RELAPSED/REFRACTORY MULTIPLE MYELOMA (MM) IN MEXICO

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OBJECTIVES: To conduct an exploratory analysis on the budgetary impact of migration from bortezomib IV to bortezomib SQ for the treatment of adults with relapsed/refractory MM in Mexico. **METHODS:** A budget impact model was developed using Microsoft Excel 2007® from the Mexican public payer perspective. Interviews with three clinicians (IMSS, INCAN, ISSSTE) currently treating relapsed/refractory MM patients were used to derive inputs for market shares, market basket comparators, grade 3 and 4 adverse event (AE) management (anemia, thrombocytopenia, peripheral neuropathy, neutropenia, fatigue, pneumonia and infection) and practice patterns for drug administration. Treatment dosing and AE rates were based on a clinical trial comparing bortezomib SQ and bortezomib IV. Unit costs for healthcare resources and drugs reflect published IMSS rates (2015 Mexican pesos). Cost of treatment is combined with literature-based estimates for the adult prevalence of MM (0.0018%), population covered by public institutions (39%), cases that are relapsed/refractory (52%), and likelihood of bortezomib IV treatment (10%) to estimate annual costs for this population. **RESULTS:** The annual per-patient treatment cost for bortezomib IV was $653,136, including $495,486 in drug costs, $148,864 in administration costs and $8,786 in AE costs. The cost per-patient for bortezomib SQ was $532,877, including $495,513 in drug costs, $30,906 in administration costs and $6,458 in AE costs. The model estimates that 10% of MM patients covered by public institutions are using bortezomib IV. If these patients switched to bortezomib SQ, total savings to a payer would be $3,803,850 ($120,258/patient, 18.4%), including $3,731,088 ($117,958/patient) in administration and $73,626 ($2,328/patient) in AE cost savings. **CONCLUSIONS:** The use of bortezomib SQ instead of IV could provide access to a highly efficacious therapy while conferring savings to Mexican public payers. Given non-inferior efficacy, migration from IV to SQ bortezomib results in improved tolerability and reduced administration requirements without reducing clinical benefits from treatment.

PCN17: A BUDGET IMPACT MODEL ESTIMATING THE FINANCIAL IMPACT OF INCREASED USE OF GENERIC BORTEZOMIB INTRAVENOUS (IV) IN THE TREATMENT OF RELAPSED/REFRACTORY MULTIPLE MYELOMA (MM) IN VENEZUELA

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OBJECTIVES: Given the recent launch of generic bortezomib IV, payers may look to increase utilization of bortezomib IV to contain costs for the treatment of adults with relapsed/refractory MM in Venezuela. Prior to the introduction of bortezomib subcutaneous (SQ), bortezomib IV was the standard of care. This study evaluates the fiscal impact of increased use of generic bortezomib IV on total treatment costs. **METHODS:** A budget impact model was developed from the Venezuelan public payer perspective. Resource costs were based on local provider interviews (2014 Venezuelan bolivars). Treatment dosing and AE rates were based on clinical trials. Inputs for market basket comparators, adverse event (AE) management and drug administration were estimated via three clinician interviews. Generic bortezomib IV was assumed to be priced at 30% of the price of bortezomib SQ and market adoption was based on manufacturer projections, assuming equi-proportional migration from all comparators (combinations including lenalidomide, thalidomide,

melphalan and dexamethasone), except bortezomib SQ, which is constant. Cost of treatment is combined with literature-based estimates for the adult prevalence of MM (0.0018%), cases that are relapsed/ refractory (52%), and likelihood of treatment (100%) to estimate annual costs for the full population. **RESULTS:** The cost of treating 270 incident patients under current market shares is estimated at $27,699,084 ($102,510/patient). Assuming a 20% market share adoption of generic bortezomib IV, annual costs would increase by 26.2% to $34,944,197 ($129,323/patient), driven by the increased utilization of bortezomib IV ($20,155/patient) relative to other regimens and increases in administration ($4,562/patient) and AE costs ($2,096/patient). **CONCLUSIONS:** Increased utilization of generic bortezomib IV is not likely to translate into cost savings for the Venezuelan public payer given increased drug, AE and administration costs. Another option for lowering costs may be to promote the use of newer treatment alternatives that provide both high efficacy and favorable AE and administration profiles.

PCN18: IMPACT OF INDISCRIMINATE USE OF PUMP INFUSION SET (PIS) ON THE COST OF CHEMOTHERAPY TREATMENTS: A COST MINIMIZATION STUDY

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OBJECTIVES: Cancer incidence has increased in last decades. Meanwhile, new and costly intravenous chemotherapy drugs (CT) are added to current treatment options. Cost of chemotherapy is not restricted to drugs themselves, and some of the equipment used for infusion can impact the final value. CT can be administered on simple IV lines although some require the use of pumps infusion sets (PIS) both of which may be PVC free or photosensitive depending on the drug. Nonetheless, several cancer centers in Brazil adopt CT pump infusion as a rule, despite manufacturers instructions. We aim to assess the added cost of unnecessary PIS use during CT infusion. **METHODS:** In this cost-minimization study we compared 2 scenarios: use of PIS according to manufacturer recommendations or as a rule for all CT. Chemotherapy treatments for breast cancer (AC-T, AC-TH, TAC, FAC, CMF and FEC100), lung cancer (carboplatin/paclitaxel with and without bevacizumab, vinorelbine/cisplatin, cisplatin/paclitaxel and pemetrexed/cisplatin) and colon cancer (fluorouracil/leucovorin, FOLFIRI, FOLFOX, cetuximab/irinotecan) were listed from the Brazilian Society of Clinical Oncology (SBOC) manual. Minimum, mean and maximal costs for drugs and equipment were retrieved from the official price list (SIMPRO), daily cost of infusion and increment in cost were also calculated in Brazilian Reais (R$). **RESULTS:** Fifteen CT combinations were evaluated (6 for breast, 5 for colon and 4 for lung cancer). For breast cancer, the mean incremental cost per day of infusion with PIS varied from R$ 994.35 to R$ 1,839.54, depending on the chemotherapy scheme used. For lung cancer these values varied from R$ 356.34 a R$ 1,201.53 and for colon cancer treatment the incremental cost was R$ 1,226.36. **CONCLUSIONS:** Although medications are the main source of expense in cancer treatment, unnecessary use of PIS can add considerable costs to chemotherapy and correct use according to manufacturer recommendation should be reinforced.

PCN19: THE COST-EFFECTIVENESS OF BENDAMUSTINE-RITUXIMAB (BEN-R) VERSUS R-CHOP FOR THE FIRST LINE TREATMENT OF PATIENTS WITH INDOLENT NON-HODGKIN'S LYMPHOMA (INHL) IN COLOMBIA

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OBJECTIVES: To determine the cost-effectiveness of Ben-R versus R-CHOP for the first-line treatment of patients with iNHL in Colombia. **METHODS:** An economic model was constructed from the Colombian public payer perspective, with a lifetime horizon and discount rate of 5%. The model included three health states: progression-free (PF), progressive disease (PD) and death. Clinical inputs and PFS information were based on phase 3 clinical data. Overall survival (OS) data was not mature at the time of publication and the model conservatively assumes non-differential survival, estimated by disease-related mortality adjustments applied to all-cause mortality rates in Colombia. Therefore, the analysis focused on progression-free life year (PFLY) outcomes as the most relevant measure of incremental treatment effect. Treatment patterns for 1st and 2ndline chemotherapy and resource use for disease monitoring and adverse event management were based on the expert input of a Colombian hematologist. Unit costs (reported in 2014 Colombian Pesos) were estimated via EPS manager interviews and SISMED published rates. **RESULTS:** The total lifetime cost per iNHL patient was $292,962,824 for Ben-R and $249,522,769 for R-CHOP. Total life years were 7.80 for both arms but Ben-R demonstrated gains in QALYs (5.86 vs. 5.49) and PFLYs (5.58 vs. 3.62) over R-CHOP given improvements in PFS. The ICER per PFLY of $22,091,813 demonstrates that the use of Ben-R is cost effective, as the ICER falls below the willingness to pay (WTP) of Colombia at three times the GDP per capita ($44,788,404). Univariate sensitivity analysis revealed that the ICER per PFLY was most sensitive to the hazard ratio for PFS, number of Ben-R treatment cycles and the discount rate for outcomes. Probabilistic sensitivity analysis estimated that Ben-R had an 88% chance of being cost-effective based on current WTP thresholds. **CONCLUSIONS:** Ben-R is a cost-effective alternative to R-CHOP for the first-line treatment of iNHL in Colombia.

PCN20: COST DISTRIBUTION ANALYSIS RELATED TO THE USE OF TYRISINE-KINASE INHIBITORS (TKI) AND THE COMBINATION OF PEMETREXED/CISPLATIN IN THE TREATMENT OF NON-SMALL CELL LUNG CANCER (NSCLC) LOCALLY ADVANCED OR METASTATIC IN PRESENCE OF EPIDERMAL GROWTH FACTOR RECEPTOR (EGFR) MUTATIONS IN A MEXICAN INSTITUTIONAL CONTEXT

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OBJECTIVES: To calculate the distribution among treatment related average costs of the use of TKI's versus the combination of

pemetrexed/cisplatin in relation to four core cost items: Acquisition, application, medical care and disease progression. **METHODS:** A discrete event simulation cost-effectiveness model with one month cycles (progression free, disease progression and death) assessed treatment related costs in a five year horizon until death. Average costs for TKIs where taken from three different therapies: afatinib, erlotinib and gefitinib. Public institutional direct medical costs (2014 purchases and price tabulators) were retrieved to adopt the national health system perspective. Efficacy inputs where obtained from a network meta-analysis. Information gaps related to the use and frequency of medical resources where fulfilled with the results of a Delphi panel (10 oncologists of all major public institutions). The distribution among core cost items was calculated and later compared to obtain its share from the total treatment cost. **RESULTS:** In the studied time horizon, the highest cost of treatment was reported by pemetrexed/cisplatin with US$175,563, followed by a TKI mean of US$124,005. Disease progression cost was the most expensive item among alternatives, with US$154,025 and a mean of US$85,240.88 for pemetrexed/cisplatin and the TKIs respectively. Cost distribution among acquisition, application, medical care and disease progression cost for the TKIs average was 19%, 0%, 12% and 69% respectively. Pemetrexed/cisplatin cost distribution was 5%, 2%, 5% and 88% at the same core items. **CONCLUSIONS:** The economic burden in the treatment of NSCLC with EGFR mutation is heavily weighted in the disease progression cost. Even though pemetrexed/cisplatin has the lowest drug acquisition cost, it has the most expensive cost of treatment as a whole. A drug acquisition investment in TKIs is worth paying as its cost of treatment was estimated to be lower in a five year horizon.

PCN21: COMPARISON OF COST OF TREATMENT OF SELECTED CANCERS WITH PATENTED DRUGS: INDIA VERSUS ITS NEIGHBORS

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OBJECTIVES: To compare the cost of treatment of selected cancers with patented drugs: India versus neighboring countries. **METHODS:** Patented anticancer drugs (expiring in/after 2016) were selected using USFDA Orange-Book. These drugs were further, screened at the Indian national regulatory database for their marketing approval status in the country. The price of these drugs was calculated using CIMS – India online. Indication and dose as approved by USFDA for CML and Advance Breast Cancer were considered to estimate the cost of therapy. The STGs recommended by cancer.org were used. **RESULTS:** Twelve patented anticancer drugs are approved for marketing in India. Of these, we note that 4 are not available in the Indian market (Crizotinib, Ruxolitinib, Degarelix & Vemurafenib); and, the patent of 3 has been challenged (Sorafenib, Dasatinib & Fulvestrant). Lapatinib is approved for treatment of CML while Nilotinib, Ixabepilone & Eribulin are for different stages of Breast Cancer. The cost of treatment of CML using Lapatinib is $8000/year in India; and, this is $18000, $17000, $17000 & $7000 for Philippines, Malaysia, Pakistan & Indonesia, respectively. Likewise, the cost of treatment of Advanced Breast Cancer using Nilotinib is $3000/year in India while $67000, $54000, $38000 & $4000 for Malaysia, Pakistan, Indonesia & Philippines, respectively. The costs are rounded. Though it is not meaningful to compare these costs with American costs; CML treatment costs $51000/year while for Advance Breast Cancer treatment costs $1,20,000/year. **CONCLUSIONS:** In India, the cost of treatment of CML is approximately half when compared to most of the neighboring countries. For Advanced Breast Cancer, the costs are 12-22 times lower on similar comparison.

PCN22: THE RELATIVE CLINICAL AND ECONOMIC VALUE OF IPILIMUMAB IN THE TREATMENT OF METASTATIC MELANOMA VERSUS OTHER ANTI-CANCER AGENTS FOR METASTATIC DISEASES FROM A BRAZILIAN PRIVATE HEALTH CARE SYSTEM PERSPECTIVE

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OBJECTIVES: Assess the relative clinical and economic value of Ipilimumab as second-line treatment of metastatic melanoma compared with other metastatic cancers agents in Brazil. **METHODS:** A literature review of clinical data supporting approval of various metastatic cancers agents meeting the following criteria: market and price approval in Brazil within the last 10 years, OS as primary/secondary endpoints in clinical trials, median OS at time of regulatory approval and availability of Kaplan-Meier OS curves, was conducted. The studies selected provided data to analyze changes in median/mean OS, on 1-year survival rate in absolute (i.e. months) and relative (i.e. percent of improvement) terms and NNT at 1 year to avoid one death. Clinical outcomes were associated with drug costs, which were obtained from the official Brazilian price list issued on 20/Jan/2015 by CMED. **RESULTS:** Relative to other agents, ipilimumab demonstrated absolute improvement in mean OS of 6.1 months (versus 0.1-6.4 months), a relative improvement in mean OS of 53% (versus 1.3-34.3%), absolute improvement in median OS of 3.7 months versus 0-13.3 months (76,92% were ≤4 months with other agents), relative improvement in median OS of 57.8% (vs 0-63.3%), absolute improvement in 1-year survival rate (20.3% versus 0-15.0%), relative improvement in 1-year survival rate (80.2% versus 4.2-81.5%) and the lowest NNT at 1 year to avoid 1 death (5 patients versus 6.47–31.5 patients). Ipilimumab's relative value was confirmed when plotting each drug's clinical performance vs total drug costs. **CONCLUSIONS:** Results document that second-line ipilimumab demonstrates relative median OS and absolute mean OS improvements. Ipilimumab achieved the greatest relative mean OS improvement, absolute 1-year survival rate improvement and the lowest NNT at 1 year. Comparative analysis demonstrates the clinical and economic value of Ipilumumab. This analysis provides health-care decision makers another tool in their decision making process.

PCN23: COSTO DE CÁNCER DE MAMA EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos del Cáncer de Mama (CMA) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con CMA afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de CMA es de 658 personas para el año 2014 (Incidencia de CMA temprano en Perú: 29 x 100,000 y de CMA localmente avanzado: 13 x 100,000). El costo total para CMA es de 36,245,142 dólares correspondiendo a CMA temprano: 29,642,129 dólares y para CMA localmente avanzado: 6,603,013 dólares. El costo total correspondiente a prevención es de 24,068 dólares (0.1%), diagnóstico 109,706 dólares (0.3%), tratamiento 36,032,944 dólares (99.4%) y para seguimiento 78,424 dólares (0.2%). El costo fijo correspondió a 6,838,797 dólares (18.9%) y el costo variable a 29,406,345 dólares (81.1%). **CONCLUSIONES:** El costo anual total para Cáncer de Mama en el Perú se estimó en 36,245,142 dólares. Este monto representa el 19.6% del presupuesto anual en el programa presupuestal de prevención y control del cáncer del país.

PCN24: COSTO DE CÁNCER DE PROSTATA EN LOS ESTABLECIMIENTOS HOSPITALARIOS DEL PERÚ

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OBJECTIVOS: Estimar los costos del Cáncer de Próstata (CP) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con CP afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia.**RESULTADOS:** La cohorte hipotética de CP es de 1,167 personas para el año 2014 (Incidencia de CP: 51 x 100,000). El costo total para CP es de 4,902,659 dólares correspondiendo a CP Estadio I: 437,084 dólares, CP Estadio II: 4,051,303 dólares y Estadio III: 414,273. El costo total correspondiente a diagnóstico es de 296,583 dólares (6.0%), tratamiento 4,536,335 dólares (92.5%) y para seguimiento 69,742 dólares (1.4%). El costo fijo correspondió a 4,140,073 dólares (84.4%) y el costo variable a 762,587 dólares (15.6%). **CONCLUSIONES:** El costo anual total para Cáncer de Próstata en el Perú se estimó en 4,902,659 dólares. Este monto representa el 2.6% del presupuesto anual en el programa presupuestal de prevención y control del cáncer del país.

PCN25: THE BURDEN OF CANCER IN JAMAICA

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OBJECTIVES: In 2010, Jamaica presented 7,000, 6,000 and 5,000 Years of Potential Life Lost (YPLL) due lung cancer, breast cancer, and cervical cancer, respectively. For cancer in Jamaica for 2010, the objectives were: a) estimate the YPLL; b) estimate the economic cost associated with YPLL; c) estimate the Years of Potential Productive Lost (YPPL); d) estimate the Average Years of Life Lost (AYLL). **METHODS: :** Jamaica mortality data (2010) was analyzed. An upper limit of 75 years was established for the YPLL. The YPLL was divided by the total number of deaths in each year to calculate the AYLL. The YPPL was calculated by setting an upper limit of 65 years and a lower of 16 years. The economic cost associated with mortality was calculated by the method of willingness to pay, using three times the GDP per capita in 2010 (US$4,827.00), with a discount rate of 3% and an annual increase of 1%. The analysis was by gender. **RESULTS:** mortality by cancer was 2,094 cases, 1,164 (55.6%) men and 930 (54.4%) women. The total YPLL was 34,717 years, for men 16,772 years (48.3%) and 17,945 years (51.7%) for women. The AYLL was 16.6 years, 14.4 years for men and 19.3 years for women. The total YPPL was 16,491 years, 7,133 years for men and 9,358 for women. The economic cost associated with cancer was US$381.1 million, US$196.0 million for women and US$196.1 million for men. **CONCLUSIONS:** a) mortality was higher in men, YPLL was higher in women; b) cancer deaths occur in younger age for women than men; d) the economic cost associated with cancer represented 2.2% of the GDP of Jamaica. These data show the high economic burden of cancer in Jamaica in both men and women, and highlights the unmet medical needs for cancer in Jamaica.

PCN26: COSTO DE CÁNCER GÁSTRICO AVANZADO EN LOS ESTABLECIMIENTOS HOSPITALARIOS DEL PERÚ

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OBJECTIVOS: Estimar los costos del Cáncer Gástrico avanzado (CGA) en los establecimientos hospitalarios del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con CGA afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico

(procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de CGA es de 1,993 personas para el año 2014 (Incidencia de CGA en hombres: 20.5 x 100,000 y de CGA en mujeres: 14.1 x 100,000). El costo total para CGA es de 25,292,143 dólares correspondiendo a CGA localmente avanzado: 17,150,022 dólares y para CGA metastásico: 8,142,121 dólares. El costo total correspondiente a diagnóstico es de 986,071 dólares (3.9%), tratamiento 20,078,945 dólares (79.4%) y para seguimiento 4,227,128 dólares (16.7.%). El costo fijo correspondió a 12,166,756 dólares (48.1%) y el costo variable a 13,125,387 dólares (51.9%).**CONCLUSIONES:** El costo anual total para Cáncer Gástrico avanzado en el Perú se estimó en 25,292,143 dólares. Este monto representa el 13.6% del presupuesto anual en el programa presupuestal de prevención y control del cáncer del país.

PCN27: COSTO DE CÁNCER DE CUELLO UTERINO EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos del Cáncer de Cuello Uterino (CCU) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con CCU afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de CCU es de 990 personas para el año 2014 (Incidencia de CCU en Perú: 26.1 x 100,000). El costo total para CCU es de 7,725,864 dólares correspondiendo al Estadio Ia: 40,009 dólares, CCU Estadio Ib a IIIb: 3,975,922 dólares y para CCU Estadio IVa y IVb: 3,709,934 dólares. El costo total correspondiente a prevención y diagnóstico es 425,646 dólares (5.5%), tratamiento 6,911,310 dólares (89.5%) y para seguimiento 388,908 dólares (5.0%). El costo fijo correspondió a 6,164,423 dólares (79.8%) y el costo variable a 1,561,441 dólares (20.2%). **CONCLUSIONES:** El costo anual total para Cáncer de Cuello Uterino en el Perú se estimó en 7,725,864 dólares. Este monto representa el 4.2% del presupuesto anual en el programa presupuestal de prevención y control del cáncer del país.

PCN28: IMPACTO ECONOMICO DEL TRATAMIENTO DE CANCER DE CUELLO UTERINO

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OBJECTIVOS: Evaluar el impacto económico actual del tratamiento del cáncer de cuello uterino (TCCU) en la población peruana según el ingreso económico familiar per-cápita (IEF) **METODOLOGÍAS:** Se realizó un costeo del TCCU estadio FIGO II-IV, luego se ponderó por la cobertura de gastos de servicios médicos del Ministerio de Salud de Perú (60%). De acuerdo a datos de Instituto Nacional Estadísticas se obtuvieron los datos de IEF de la población peruana divididos en quintiles. Con estos datos, se realizó una relación en los diferentes quintiles. Finalmente se identificaron los grupos en los que se obtenía un gasto catastrófico, definido como un gasto mayor del 30% del ingreso mensual. Los costos son reportados en nuevos soles (NS) **RESULTADOS:** El IEF anuales por quintiles fue de 828NS, 2820NS, 6.648NS, 13.296NS y 60.276NS, representando el quintil I al V respectivamente. Con un costo real de 2857NS por TCCU, se obtiene que el GB sería marcadamente mayor en el quintil I, obteniéndose un GB del 325%. Un gasto catastrófico fue observado en el quintil I y II, con un gasto de bolsillo de 345% y 101% del IEF en comparación de los quintiles III, IV y V, donde el GB por TCCU representa el 43%, 21% y 5% del ingreso anual. **CONCLUSIONES:** En Perú, el costo del TCCU involucra un gasto catastrófico en los quintiles de ingresos más pobres de la población (quintil I y quintil II) comparado con los quintiles de mayor riqueza. Se postula que el aumento de cobertura de intervenciones de prevención, como vacunación universal y un mayor acceso a servicios de salud podría disminuir estas diferencias.

PCN29: COST ANALYSIS OF VORICONAZOLE VERSUS LIPOSOMAL AMPHOTERICIN B FOR PRIMARY THERAPY OF INVASIVE ASPERGILLOSIS AMONG HIGH-RISK HEMATOLOGIC CANCER PATIENTS IN BRAZIL

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OBJECTIVES: Published real-world studies suggested voriconazole (Vfend) may provide reduced length-of-stay, intravenous (IV) length-of-therapy (LOT), and costs compared liposomal amphotericin B (LAMB, Ambisome) in invasive aspergillosis (IA) patients. We performed a cost analysis of voriconazole versus LAMB as first-line antifungal treatment for IA among patients with prolonged neutropenia or undergoing bone marrow or hematopoietic stem-cell transplantation (BMT/HSCT) from Brazil public and private payer perspective. **METHODS:** A decision analytic model with a 30-day time horizon was constructed to estimate the potential treatment costs of alternative interventions voriconazole versus LAMB. Each pathway in the model was defined by probabilities of an event occurrence and costs of clinical outcomes. Outcome probabilities and cost inputs (in 2014 Brazil Real/R$) were derived from published literature, clinical trials, and recommendations from expert panels. In the base case, patients who failed first-line therapy were assumed to either experience a single switch to or add on with caspofungin as second-line treatment options. Base-case evaluation included

drug management costs and additional costs due to severe adverse events. **RESULTS:** Based on clinical trial treatment success rates of 52.8% (voriconazole) and 50.0% (LAMB), and LOT of 7-day IV + 8-day oral for voriconazole and 15-day IV for LAMB, voriconazole had a considerable lower total treatment cost than LAMB (R$25,060 vs R$100,141 in public sector; R$37,263 vs R$118,503 in private sector). Cost savings were primarily due to the lower drug cost, higher treatment efficacy, and shorter IV LOT associated with voriconazole. Drug prices and LOT were the main cost drivers. The cost advantage of voriconazole persists through 15 days of IV in the first-line treatment, even without oral treatment. **CONCLUSIONS:** This study suggests that voriconazole is cost-saving compared to LAMB in the treatment of invasive aspergillosis from both public and private payer perspective in Brazil.

PCN30: BREAST CANCER IN BRAZIL: HOSPITALIZATION COSTS

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OBJECTIVES: Breast cancer is the second most common cancer in the world and caused 13,345 deaths in Brazil in 2011. According to data from the Brazilian National Cancer Institute, 75,000 new cases are expected between2014 and 2015. The main objective of this study is to report geographic distribution and temporal trend of hospitalization costs due to breast malignant neoplasm in Brazil. **METHODS:** Hospitalizations assessmentswere performed to analyze costs and geographic distributionrelated to breast cancer, from January 2008 to December 2014,in Brazil. The data used were extracted through Brazilian Hospital Information System (SIH/SUS), from morbidity database and according to C-50 which represents breast malignant neoplasm on ICD-10 Chapter II. Costs were estimated in 2015 Brazilian Real (BRL) and include federal reimbursement for exams, drugs, medical procedures and fees. **RESULTS:** Costs due to breast cancer hospitalizations in Brazil were BRL 26,206,844, BRL 33,538,686, BRL 36,772,345, BRL 39,106,146, BRL 44,469,151, BRL 98,812,142, BRL 1.12E+08 from 2008 to 2014, respectively. In this period, costs increased around 23.4%.The average lenght of stay was 4 days, mortality was 8.23 and cost per hospitalization was around BRL 1,203. Bahia and Rio Grande do Norte, both localized in Northeast region, were the states with the highest cost per hospital admissions: BRL 2,184.91 and BRL 1,631.39, respectively. Lowest costs per hospitalization were found on North region: BRL 567.31 and 672.32, on Amapá and Acre states, respectively. **CONCLUSIONS:** Hospitalization due to breast cancer in Brazil is increasingly impactful on Brazilian economy. The emergence of new technologies more expensive and the growing incidence of the disease in the country are two factors that may explain the increased costs and the needed for early diagnosis.

PCN31: COSTO EN SALUD EN LA INTERVENCION DE PREVENCION Y CONTROL DE CÁNCER EN EL INSTITUTO NACIONAL DE ENFERMEDADES NEOPLÁSICAS, 2010-2014

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OBJECTIVOS: Estimar el costo en salud en las intervenciones del Programa contra el cáncer en el Instituto Nacional de Enfermedades Neoplásicas, 2010-2014. **METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en referencia al recurso humano, materiales médicos, medicamentos y equipamiento. Se tomó en consideración la asignación presupuestal de prevención y control de cáncer, en el marco de Presupuesto por Resultados (PpR). Se contrastó el uso de recursos médicos y el número de atendidos nuevos en el Centro de Prevención del Instituto Nacional de Enfermedades Neoplásicas 2010-2014, además del número de pacientes nuevos atendidos por el Departamento de Radioterapia. **RESULTADOS:** El uso de recursos médicos en la intervención de prevención y control de cáncer se incrementó en el periodo 2010-2014 de $ 1,841,183.14 de dólares a $ 24,882,080.75. En este periodo de tiempo, el porcentaje de atendidos en el Centro de Prevención del Instituto Nacional de Enfermedades Neoplásicas paso de 6.94% en el 2010 a 19.97% en el 2014. De la misma manera se encontró durante ese periodo de tiempo una disminución del porcentaje de atendidos nuevos por el Departamento de Radioterapia (9.5% en el 2010 a 6.1% en el 2014).**CONCLUSIONES:** El presupuesto para la prevención y control de cáncer del Instituto Nacional de Enfermedades Neoplásicas se incrementó durante el periodo 2010-2014 , de igual manera el número de pacientes atendidos en el Centro de Prevención del Instituto Nacional de Enfermedades Neoplásicas. Por otro lado se observa una disminución en el porcentaje de pacientes nuevos atendidos por el Departamento de Radioterapia, lo que haría suponer que la implementación de programas de prevención ayuda a captar a pacientes en etapas tempranas y evita tratamientos más cruentos.

PCN32: PANITUMUMAB + MFOLFOX6 VERSUS BEVACIZUMAB + MFOLFOX6 AS FIRST-LINE TREATMENT OF WILD-TYPE RAS METASTATIC COLORECTAL CANCER: A COST-EFFECTIVENESS ANALYSIS FROM THE BRAZILIAN PRIVATE HEALTHCARE SYSTEM PERSPECTIVE

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OBJECTIVES: This study aims to assess the cost-effectiveness of panitumumab + mFOLFOX6 (PAN) as first-line treatment of metastatic CRC (mCRC) with RASnot mutated (wild type) versus bevacizumab + mFOLFOX6 (BEV), from the Brazilian private healthcare system perspective. **METHODS:** A previously published Markov model was developed for patients ≥ 18 years old with wild-type RASmCRC in first-line therapy, and adapted to a local perspective. Health states included ‘progression free’, ‘attempted metastases resection’, ‘disease free after metastases resection’, ‘progressive disease: after resection and relapse’, ‘progressive disease: treatment with subsequent active therapy’, ‘progressive disease: treatment with best supportive care’ and ‘death’. Two weeks cycles and a lifetime time-horizon were considered. Life years (LY), and quality-adjusted life years (QALYs) were evaluated as

outcomes. Clinical inputs were obtained from a systematic literature review and economic inputs from official databases. Direct medical costs are presented in Brazilian real (BRL) for the year 2014. A 5% discount rate was applied annually for costs and benefits. **RESULTS:** PAN generated 3.432 LY compared to 2.628 LY for BEV, with total costs of 183,784 BRL and 163,059 BRL, respectively, resulting in an incremental cost-effectiveness ratio (ICER) of 25,798 BRL per LY gained. In addition, PAN generated 2.572 QALY compared to 1.979 QALY for BEV, resulting in an ICER of 34,960 BRL per QALY gained. The probabilistic sensitivity analysis evidenced model robustness. **CONCLUSIONS:** According to the cost-effectiveness threshold recommended by the World Health Organization 2013, treatment of wild-type RAS mCRC with PAN is clearly cost-effective when compared to BEV in Brazil.

PCN33: COST-EFFECTIVENESS OF CERITINIB VERSUS CURRENT THERAPIES FOR CHEMOTHERAPY-EXPERIENCED ANAPLASTIC LYMPHOMA KINASE POSITIVE NON-SMALL CELL LUNG CANCER PATIENTS IN MEXICO

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OBJECTIVES: Patients with non-small cell lung cancer (NSCLC) who have the anaplastic lymphoma kinase (ALK) gene rearrangement can be treated with crizotinib (CRZ); however, resistance can eventually occur. Ceritinib (CRT) is a novel ALK inhibitor with substantial efficacy in ALK+ NSCLC patients, even among those who have progressed after CRZ treatment. A recent trial (ASCEND-1) demonstrated that previously-treated, crizotinib-naïve (PT/CN-EX) ALK+ NSCLC patients treated with CRT had a median progression-free survival of 15.2 months, with 73.1% of patients responding to therapy. The objective of this study was to project the health and cost-effectiveness outcomes of CRT versus current therapies in chemotherapy-experienced (CM-EX) Mexican ALK+ NSCLC patients. **METHODS:** A partitioned survival model simulated PT/CN-EX ALK+ NSCLC patients over a 20 year time horizon. Patients received therapy in a progression-free state before transitioning to a progressive-disease state where patients stayed until death. Patients either received CRT or one of the following therapies: CRZ, pemetrexed monotherapy (PM), docetaxel monotherapy (DM), and pemetrexed-carboplatin (PC). Survival data were fit and extrapolated from the ASCEND-1 trial for CRT with hazard ratios against comparators sourced via naïve indirect comparisons. Relevant cost and resource utilization data were sourced from the literature and adjusted to 2014 MXN pesos. All outcomes were discounted at 5%. **RESULTS:**Compared to current therapies in Mexico, CRT improved health outcomes over 20 years, resulting in the most quality-adjusted life-years (QALYs: CRT: 2.49, CRZ: 1.62, PM: 0.64, DM: 0.68, and PC: 0.74). In addition, CRT was projected to be cost-effective, with incremental cost-effectiveness ratios ranging from MXN 375,458 (vs. CRZ) to MXN 610,125 (vs. PC). Deterministic and probabilistic sensitivity analyses demonstrated that results were robust across model inputs and assumptions. **CONCLUSIONS:** CRT was projected to result in the best health outcomes for PT/CN-EX ALK+ NSCLC patients compared to current treatment regimens in Mexico, while also being a cost-effective therapy.

PCN34: COSTO-EFECTIVIDAD DE TORACOTOMÍA VERSUS VIDEOTORACOSCOPIA EN PACIENTES CON CÁNCER DE PULMÓN DE CÉLULA NO PEQUEÑA EN ESTADIO I

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OBJECTIVOS: Determinar la razón costo-efectividad de toracotomía comparada con videotoracoscopia en pacientes con cáncer de pulmón de célula no pequeña en estadio I. **METODOLOGÍAS:** Se realizó un estudio de costo-efectividad mediante un modelo de árbol de decisiones extendido con proceso de Markov desde la perspectiva del sistema de salud colombiano financiado públicamente, para comparar la videotoracoscopia con la toracotomía. Los resultados se midieron en años de vida ganados, obtenidos de revisiones sistemáticas de curvas de supervivencia. Se incluyeron costos médicos directos, obtenidos solamente de prestadores y aseguradores de tres ciudades principales de Colombia. El periodo de estudio fue de 10 años, con tasas de descuento de 3,5 % y 6 %. El modelo se evaluó usando la simulación de Montecarlo con 10.000 iteraciones.**RESULTADOS:** Los costos totales medios esperados de la toracotomía y de la videotoracoscopia fueron de COP$ 22’831.299 (IC95%: 22’773.228-22’889.370) y $ 16’955.369 (IC95%: 16’920.215-16’990.523), respectivamente. Los años de vida ganados para toracotomía fueron 7,85 (IC95%: 7,84-7,86) y para videotoracoscopia fueron 9,24 (IC95%: 9,23-9,25). La toracotomía fue superada por la videotoracoscopia para disposiciones a pagar entre COP$ 15’000.000 y $ 45’000.000. **CONCLUSIONES:** La videotoracoscopia superó a la toracotomía en el tratamiento de pacientes con cáncer de pulmón de célula no pequeña en estadio I, para diferentes disponibilidades por pagar en el sistema de salud colombiano.

PCN35: COSTO-EFECTIVIDAD DE OCTREOTIDE LAR COMPARADO CON TERAPIA DE SOPORTE USUAL PARA EL TRATAMIENTO DE TUMORES NEUROENDOCRINOS DE INTESTINO MEDIO EN COLOMBIA

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OBJECTIVOS: Evaluar la costo-efectividad (CE) de Octreotide LAR en adición a terapia de soporte usual (TS), en comparación con TS, para el tratamiento de Tumores Neuroendocrinos (TNEs) de Intestino Medio (IM) en Colombia, desde la perspectiva del pagador. **METODOLOGÍAS:** Teniendo en cuenta la regulación de precios de medicamentos en Colombia y posibles cambios en la práctica clínica actual del manejo de TNEs, se actualizó un modelo de CE realizado en 2012. Para evaluar los costos y desenlaces se utilizó un modelo de Markov con ciclos trimestrales, evaluando una cohorte hipotética de pacientes divididos en TNEs Funcionantes y No Funcionantes. El desenlace primario fueron años de vida ganados (AVG) libres de progresión. Se analizaron las probabilidades de transición para enfermedad estable, progresión y muerte para cada grupo. Tasa de descuento de 5 %, horizonte temporal 25 años. El uso de recursos, líneas de tratamiento y datos epidemiológicos se obtuvieron a partir de una encuesta a 6 especialistas de centros de

referencia en el país, (promedio pacientes año 320). Los costos se obtuvieron de fuentes institucionales. Se realizó un análisis de sensibilidad probabilístico. **RESULTADOS:** En general, los pacientes con TS alcanzaron 2,1 AVG libres de progresión versus 4,6 con Octreotide LAR. El costo acumulado por paciente fue de $117.016.989 COP con TS y de $230.300.406 COP con Octreotide LAR. La razón incremental de CE fue $43.885.199 COP por AVG. EL uso de Octreótide LAR + TS fue más costo-efectivo en TNEs de IM No Funcionantes. Con TS, se observó un aumento en la frecuencia de uso de recursos en enfermedad progresiva, implicando mayores costos por paciente ($25.860.364 COP más vs Octreótide LAR + TS). **CONCLUSIONES:** La adición de Octreotide LAR a la TS continúa siendo una alternativa costo-efectiva, pudiendo disminuir la progresión de la enfermedad y los costos de tratamiento.

PCN36: ECONOMIC, PUBLIC HEALTH, AND HUMANISTIC IMPACT OF A QUADRIVALENT HUMAN PAPILLOMAVIRUS (HPV6/11/16/18) VACCINATION PROGRAM FOR FEMALES AND MALES AGE 9-11 YEARS IN MEXICO

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OBJECTIVES: Compare economic, public health, and humanistic impact of 2 dose quadrivalent (HPV 6/11/16/18) vaccination for 9-11 year old females and males with female only bivalent (HPV 16/18) vaccination in Mexico. **METHODS:** A previously developed transmission dynamic mathematical model was adapted to evaluate impact of routine vaccination of 9-11 year old females and males in Mexico. The model compared 70% female and 50% male baseline coverage for two doses of quadrivalent vaccine versus 70% female bivalent vaccine coverage. Mexico specific data was used from literature where available; model default values were used otherwise. Input data included demographic, behavioral, epidemiological and screening parameters, and direct treatment costs of HPV-related morbidities from a public health perspective. **RESULTS:** Over a 100-year period, compared to bivalent female vaccination, female and male quadrivalent vaccination reduced incidence of male anal and penile cancer by 8.3% and 14.6% respectively and avoided 7.8% and 13.9% deaths in males from anal and penile cancers respectively. Female and male quadrivalent vaccination reduced HPV 6/11-related disease incidence of genital warts in females (84.5%) and males (84.1%), and CIN1 (83.5%). This would translate into a reduction of HPV 6/11-related disease cost of 61.7%, 60.9%, and 58% for genital warts among females and males, and HPV 6/11 related CIN1, respectively. Over a 100 year period, the total HPV 6/11/16/18-related disease costs avoided would be over $2.12 billion Mexican Pesos. The incremental cumulative QALYs gained per 100,000 by HPV 6/11/16/18-related disease over 100 years would be 66.67 when compared with HPV16/18 vaccination. **CONCLUSIONS:** In Mexico, a quadrivalent HPV 6/11/16/18 routine vaccination program for 9-11 year old females and males has incremental economic, public health, and humanistic impact compared to a female only bivalent HPV 16/18 vaccination program and will further decrease the burden of HPV-related disease by preventing genital warts, anal and penile cancer.

PCN37: COST-EFFECTIVENESS OF VEMURAFENIB VS IPILIMUMAB PLUS DACARBACINE IN THE TREATMENT OF NON-RESECTABLE METASTASIC MELANOMA WITH BRAF600E MUTATION IN COLOMBIA

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OBJECTIVES: To evaluate the cost-effectiveness of vemurafenib compared with ipilimumab plus dacarbacine for the treatment of patients with metastasic melanoma BRAF600E mutation in the Colombian context.**METHODS:** A cost-effectiveness analysis using a Markov model was conducted adopting the perspective of a third party payer (Colombian health care system). Time horizon was 12 months, with monthly cycles. Three health states were considered, progression free survival (PFS), disease progression (DP), and death. This model assessed three primary outcomes: Quality Adjusted Life Years (QALYs), PFS and overall survival (OS). Transition probabilities and utilities were obtained from published randomized clinical trials and literature, respectively. Direct costs included were estimated from official national databases (in November 2014 Colombian pesos, exchange rate used 1 USD=2140 COP). Adverse events were also included with a similar presentation among the two health states. **RESULTS:** For the 12-month time horizon, there were 0.089 incremental life years gained and 0.099 QALYs with vemurafenib. Ipilimumab plus dacarbacine was dominated by vemurafenib for the three primary outcomes. The total cost per patient was USD 63,936 for vemurafenib, USD 126,936 for ipilimumab plus dacarbacine (incremental cost USD 63,000). **CONCLUSIONS:** Compared with ipilimumab plus dacarbacine, vemurafenib is cost-saving and is associated with better clinical outcomes in the Colombian context.

PCN38: ANÁLISIS DE COSTO EFECTIVIDAD DEL USO DE SORAFENIB EN PACIENTES CON CARCINOMA HEPATOCELULAR EN ESTADIOS AVANZADOS, PARA EL CONTEXTO ECUATORIANO

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OBJECTIVOS: estimar la eficacia y el costo medio anual del uso de sorafenib frente al mejor cuidado paliativo, en el tratamiento de pacientes con carcinoma hepatocelular avanzado, desde la perspectiva del tercer pagador. **METODOLOGÍAS:** mediante un modelo de Markov se simuló la historia natural de pacientes con carcinoma hepatocelular avanzado, en un horizonte temporal de dos años, ciclos mensuales y una tasa de descuento del 5%. El modelo contempla tres estados de salud: libres de progresión, progresión y muerte, a través de la simulación del comportamiento de los pacientes por su curva de incidencia acumulada, Kaplan-Meier, tanto en progresión como en sobrevida. Los costos son expresados en dólares y se extrajeron de la secretaría técnica de fijación de precios de

medicamentos y manuales tarifarios de Ecuador. Los desenlaces utilizados son los años de vida salvados y costos totales. Para el cuidado paliativo se realizó una revisión de literatura del uso de recursos para pacientes en control y sin control de la enfermedad, para identificar frecuencias de uso de servicios. **RESULTADOS:** un paciente tratado con sorafenib tiene 0,94 años de vida promedio, con un costo de $22.335, mientras que con cuidado paliativo es de 0,71 años, con un costo de $5.762, lo cual identifica al sorafenib como una tecnología altamente efectiva y segura frente al cuidado de soporte. Su efectividad media, medida por costo de utilización anual, se estima en $23.786, lo cual puede ser una relación costo-efectiva si se tiene en cuenta la pequeña cantidad de pacientes que serían objeto de la tecnología, dada la baja prevalencia de pacientes en dicho estadio. **CONCLUSIONES:** esta tecnología es altamente efectiva, mejorando la sobrevida de los pacientes y debido a su baja prevalencia. La inversión por costo anual de utilización tiene un bajo impacto económico y su uso podría ser viable en el sistema de salud.

PCN39: COSTO EFECTIVIDAD DE LA ADICI"N DE BEVACIZUMAB AL ESQUEMA DE PRIMERA LÍNEA DE QUIMIOTERAPIA CARBOPLATINO + PACLITAXEL EN PACIENTES CON CÁNCER DE PULM"N DE CELULA NO PEQUEÑA NO ESCAMOSA CON ECOG ENTRE 0 Y 1

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OBJECTIVOS: Evaluar la razón costo-efectividad de la adición de bevacizumab al esquema de primera línea de quimioterapia con carboplatino más paclitaxel a los pacientes con cáncer de pulmón ce célula no pequeña (CPCNP) no escamosa con ECOG entre 0 y 1 desde el punto de vista del Sistema General de Seguridad Social en Salud (SGSSS) financiado públicamente en Colombia. **METODOLOGÍAS:** Estudio de análisis costo efectividad del esquema de quimioterapia bevacizumab + carboplatino + paclitaxel comparado con carboplatino + paclitaxel en un horizonte temporal de 4 años. Se empleó como desenlace en salud los años de vida ganados (AVG), obtenidos a partir de las curvas de supervivencia de un ensayo clínico. Se incluyó los costos de los esquemas de quimioterapia, manejo de reacciones adversas, pruebas de neuroimagen y de laboratorio entre otros. Se utilizó un modelo de Markov realizado en TreeAge Pro®. Se realizó análisis de sensibilidad probabilístico. **RESULTADOS:** La adición de bevacizumab al esquema de quimioterapia supone un aumento de 0.12 AVG por un costo de aproximadamente 3 veces más que el esquema de quimioterapia carboplatino + paclitaxel, un costo incremental de $46.079.783 pesos colombianos (COP). Los resultados de la simulación de Monte Carlo para una cohorte de 10.000 iteraciones evidenció que la adición de bevacizumab al esquema de carboplatino + paclitaxel fue más costoso y más efectivo empelando diferentes valores de costos y diferentes tasas de descuento. **CONCLUSIONES:** La adición de bevacizumab al esquema de quimioterapia carboplatino + paclitaxel comparado con carboplatino + palcitaxel supone mayor efectividad en AVG pero también más costos, desde el punto de vista del SGSSS financiado públicamente en Colombia y con la disponibilidad a pagar en nuestro país.

PCN40: COST EFFECTIVENESS ANALYSIS OF ERIBULIN MESYLATE (HALAVEN®) AS A TREATMENT FOR METASTATIC BREAST CANCER IN MEXICO

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OBJECTIVES: The objective of this study was to estimate Incremental Cost-Effectiveness Ratio (ICER) of utilizing eribulin mesylate (Halaven®) for metastatic breast cancer (MBC) in the Mexican public health institutions for third line (3L) treatment of patients who have been previously treated with capecitabine. **METHODS:** Eribulin mesylate is indicated in Mexico for the treatment of patients with locally advanced or MBC that have progressed following treatment with an anthracycline and a taxane and have had at least two chemotherapeutic regimens in an advanced setting. An economic model was developed to evaluate the cost-effectiveness of eribulin mesylate in the population previously treated with capecitabine. Data on progression free survival and overall survival were derived from a randomized clinical trial of eribulin mesylate against treatment of physician choice (EMBRACE). Analyses were prepared based on the sub-group of patients previously treated with capecitabine. A five year partitioned survival model was developed to estimate the ICER of patients in this sub-group. Frequencies of adverse events and utilization of direct medical resources were also obtained from EMBRACE. Local Mexico tariffs were applied for all costs i.e. drug, administration and monitoring costs, adverse event treatment and palliative care. **RESULTS:** Incremental life years (LYs) gained by these patients was 0.28 life years, which is 3.36 months. At a cost of eribulin mesylate of 4,754 Mexican pesos per 2ml vial, the ICER per LY was 22,017 Mexican pesos. Sensitivity analysis results were also consistent with the base case findings. **CONCLUSIONS:** With a threshold of 140,000 Mexican pesos per life year saved, eribulin mesylate was found to be cost-effective for the population in line with license and that have been previously treated with capecitabine. Given the limited number of effective therapeutic options available to these patients, cost effective eribulin mesylate (Halaven®) represents a valid option for optimizing the treatment pathway.

PCN41: EVALUACIÓN ECONÓMICA DE LA ADICIÓN DE PERTUZUMAB AL TRATAMIENTO DE TRASTUZUMAB+DOCETAXEL EN PACIENTES CON CÁNCER DE MAMA HER2 POSITIVO METASTÁSICO FRENTE AL TRATAMIENTO CON TRASTUZUMAB+DOCETAXEL+PLACEBO, EN EL CONTEXTO VENEZOLANO

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OBJECTIVOS: estimar la costo-efectividad y costo-utilidad de la adición de pertuzumab al tratamiento de trastuzumab+docetaxel en

mujeres con cáncer de mama HER2 positivo metastásico frente la no adición de pertuzumab. **METODOLOGÍAS:** desarrollo de modelo de Markov que simula la historia natural de pacientes con cáncer de mama HER2 positivo metastásico, en tres estados de salud (supervivencia libre de progresión, progresión y muerte), en un horizonte temporal hasta la muerte, ciclos mensuales y una tasa de descuento anual del 5%. Los parámetros de utilidad fueron tomados del estudio de Lloyd y los de efectividad y seguridad del estudio EMILIA. Los costos se estimaron en bolívares fuertes bajo fuente del ministerio de salud venezolano y de manuales tarifarios. Los desenlaces analizados fueron los años de vida ajustados por calidad y tiempo libre de progresión, y analizados desde el punto de vista económico como costo por efectividad media. **RESULTADOS:** adicionar pertuzumab al tratamiento estándar es más efectivo bajo todos los desenlaces analizados. Los pacientes tratados con la adición de pertuzumab tienen un promedio de 4,86 años de vida salvados y 3,33 años de vida ajustados por calidad, mientras que los tratados solo con trastuzumab+docetaxel tienen una media de años de vida inferior, de 3,76 y 1,77 para años de vida ajustados por calidad. El resultado, basados en la efectividad media que estima el costo medio anual de utilizar la tecnología, es de $357.628,3, valor que corresponde al costo promedio anual de un paciente en las condiciones del caso base. **CONCLUSIONES:** teniendo en cuenta la efectividad media como medida de resultado, el costo por año de vida ascendería a $357.628,3. Este se constituiría en el costo anual en el que incurriría el sistema de salud para darles tratamiento eficaz y seguro a pacientes con cáncer de mama HER2 positivo metastásico.

PCN42: EVALUACIÓN ECONÓMICA DEL USO DE TRASTUZUMAB-EMTANSINE PARA EL MANEJO DE PACIENTES CON CÁNCER DE MAMA HER2 POSITIVO AVANZADO CON TRATAMIENTO PREVIO CON TRASTUZUMAB Y UN TAXANO POR SEPARADO O EN COMBINACIÓN, PARA VENEZUELA

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OBJECTIVOS: analizar la costo-efectividad y costo-utilidad de trastuzumab-emtansine, para el manejo de pacientes con cáncer de mama HER2 positivo avanzado en tratamiento previo con trastuzumab y un taxano por separado o en combinación, para el contexto venezolano. **METODOLOGÍAS:** mediante la adaptación de un modelo económico de cadenas de Markov, que simula la historia natural de la enfermedad, se evaluó el uso de la terapia trastuzumab-emtansine para pacientes con cáncer de mama HER2 positivo previamente tratados con trastuzumab y un taxano solos o en combinación. Los datos clínicos incluidos en el modelo fueron obtenidos del estudio EMILIA. Los desenlaces evaluados fueron años vida salvados, años de vida libre de progresión y años de vida ajustados por calidad de vida, en un horizonte de diez años, en ciclos mensuales, con una tasa de descuento del 5%. Los costos provienen, en bolívares fuertes, de datos del ministerio de salud venezolano y de los manuales tarifarios. **RESULTADOS:** se demuestra una efectividad superior de trastuzumab-emtansine frente a sus comparadores, en todos los desenlaces evaluados, los años de vida salvados fueron 3,00 con trastuzumab-emtansine frente a 2,30 con lapatinib/capecitabina, 1,87 con trastuzumab/capecitabina y 1,76 con capecitabina. Se evidencia una relación de costo-efectividad frente a trastuzumab/capecitabina en algunas iteraciones. Frente a esta última combinación el análisis de Montecarlo mostró que en el 1,5% de los casos trastuzumab-emtansine es dominante y el promedio de costo por año de vida salvados ajustado por calidad se ubica como costo-efectivo sobre el umbral definido. **CONCLUSIONES:** teniendo en cuenta los pocos pacientes con el diagnóstico, el impacto per cápita del uso de la adición de trastuzumab-emtansine acumulado a tres años es de $0,15 y debería ser tenido en cuenta para la inclusión en el sistema de salud venezolano.

PCN43: ANÁLISIS DE MINIMIZACIÓN DE COSTOS DEL USO DE TRASTUZUMAB SUBCUTÁNEO FRENTE A TRASTUZUMAB INTRAVENOSO EN EL TRATAMIENTO DE CÁNCER DE MAMA TEMPRANO EN MUJERES CON HER2 POSITIVO PARA VENEZUELA

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OBJECTIVOS: determinar el costo del uso de trastuzumab subcutáneo frente a trastuzumab intravenoso para el tratamiento del cáncer de mama temprano en pacientes adultas con HER2 positivo. **METODOLOGÍAS:** se desarrolló un análisis de minimización de costos en un horizonte temporal de un año, bajo la perspectiva del estado venezolano. Dentro del estudio se consideraron todos los costos asociados a la aplicación del medicamento, así como las frecuencias de uso de la tecnología de análisis. De acuerdo con el comportamiento de la enfermedad, se tuvieron en cuenta tres escenarios de uso: antes de la cirugía, después y contemplando el uso en los dos momentos. Se planteó un análisis de sensibilidad univariado realizando aumentos de precio de tecnología en 5 y 10%; los costos utilizados fueron en bolívares fuertes. Adicionalmente, se realizó un análisis de impacto presupuestal para determinar el efecto que tendría su utilización teniendo en cuenta una tasa de remplazo del 30%. **RESULTADOS:** trastuzumab subcutáneo mostró un ahorro en los tres escenarios frente a trastuzumab intravenoso: antes de cirugía ($20.851,26), después de cirugía ($21.513,6) y uso en los dos momentos ($24.162,96). El análisis de sensibilidad mostró que al realizar un aumento del 5% en el precio todavía es menor que su comparador. Dentro del análisis de impacto presupuestal trastuzumab subcutáneo mostró un ahorro de $8.236.911,87, lo que representaría para el sistema de salud venezolano un ahorro per cápita de $0,27. **CONCLUSIONES:** los resultados obtenidos dentro del estudio mostraron que la utilización de trastuzumab subcutáneo, en comparación con la versión intravenosa, genera menos costos asociados, evidenciando posibles ahorros, los cuales se reflejan dentro del impacto presupuestal. Debido a lo anterior, esta tecnología podría ser una opción a tener en cuenta para su posible incorporación al sistema de salud venezolano.

PCN44: EVALUACION ECONOMICA DE LEUPRORELINA 45 MG EN EL TRATAMIENTO DE CÁNCER DE PROSTATA AVANZADO

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OBJECTIVOS: Realizar una evaluación económica completa del uso de leuprorelina 45mg en el tratamiento de cáncer de próstata avanzado, en comparación con buserelina, goserelina y las otras formulaciones de leuprorelina incluidas en el Cuadro Básico y Catálogo de Medicamentos del Sector Salud, desde el punto de vista institucional. **METODOLOGÍAS:** Se desarrolló un estudio de evaluación económica completa de tipo minimización de costos, con un horizonte temporal de dos años, desde la perspectiva de las instituciones públicas del sector salud en México. Las alternativas a comparar versus leuprorelina 45 mg fueron leuprorelina (3.75 mg, 7.5 mg, 11.25 mg, 22.5 mg), buserelina 9.45 mg y goserelina (3.6 mg y 10.8 mg). El costo unitario de la consulta del especialista corresponde a los costos unitarios publicados por el IMSS. El precio del leuprorelina 45 mg fue proporcionado por Asofarma, y los costos restantes se obtuvieron de los precios acordados en la Comisión Coordinadora para la Negociación de Precios de Medicamentos y Otros Insumos para la Salud para el 2015. Para comprobar la robustez del modelo se realizó un análisis de sensibilidad univariado del precio de leuprorelina 45 mg de +2% y +4%, y uno de tipo escenario en el que sólo se costeó el agonista de LHRH. Se aplicó una tasa de descuento del 5% a los resultados del modelo. **RESULTADOS:** Leuprorelina 45 mg es el agonista de LHRH de menor costo disponible en las instituciones públicas del sector salud en México, generando ahorros desde $ 2,542.16 MXN hasta $ 45, 611.06 MXN. Estos resultados se confirmaron mediante los análisis de sensibilidad realizados. **CONCLUSIONES:** Leuprorelina 45 mg es una estrategia costo–ahorradora en el tratamiento de cáncer avanzado de próstata cuando la orquiectomía o la administración de estrógenos no es aceptada, en comparación los agonistas de LHRH disponibles en las instituciones de salud del sector público de México.

PCN45: ANÁLISIS COSTO-UTILIDAD DEL MANEJO INTEGRAL DE LAS PACIENTES CON CARCINOMA DE SENO TRATADAS CON RECONSTRUCCION DE SENO INMEDIATA VS. DIFERIDA EN COLOMBIA

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OBJECTIVOS: Evaluar la costo-utilidad para Colombia del tratamiento integral del cáncer mamario temprano con reconstrucción mamaria inmediata, comparado con reconstrucción mamaria diferida. **METODOLOGÍAS:**Se construyó un modelo de árbol de decisiones, horizonte temporal de un año, desde la perspectiva del tercero pagador, con datos de costos del Manual del Instituto de Seguros Sociales 2001+ ajuste de 30% según metodología propuesta por el Instituto de Evaluación Tecnológica en Salud y modelo de facturación del Centro Javeriano de Oncología-Hospital Universitario San Ignacio. Los datos de probabilidades de transición y utilidades fueron obtenidos de médicos especialistas, pacientes y literatura médica. Se hicieron análisis de sensibilidad univariado y probabilístico. **RESULTADOS:** Los costos esperados por paciente son COP $26.710.605 (USD 11.165) y COP $26.459.557 (USD 11.060) para la reconstrucción inmediata y diferida, respectivamente. En comparación con la reconstrucción diferida, la reconstrucción mamaria inmediata, genera un costo incremental de COP $251.049 (USD 105). El tratamiento integral con reconstrucción mamaria inmediata genera 0.75 AVACs, mientras la diferida genera 0.63 AVACs, con una RCUI de COP $2.154.675 por AVAC (USD 901). **CONCLUSIONES:** El costo por AVAC ganado no supera el umbral de aceptabilidad sugerido de un PIB per cápita, sin importar si la reconstrucción se hace de forma inmediata o diferida. Los costos durante el primer año de la reconstrucción mamaria son similares, pero la utilidad percibida por pacientes y según la literatura es mayor cuando se hace reconstrucción inmediata. La decisión quirúrgica, debe ser tomada por una paciente adecuadamente informada.

PCN46: EVALUACION DE COSTO-UTILIDAD DEL USO DE CETUXIMAB COMO ÚLTIMA LÍNEA DE TRATAMIENTO DEL CÁNCER COLORRECTAL METASTÁSICO

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OBJECTIVOS: Asesorar sobre la inclusión de Cetuximab al Formulario Terapéutico de Medicamentos, para el tratamiento del cáncer colorrectal metastásico como tratamiento de ultima línea **METODOLOGÍAS:** Fue realizada una evaluación costo-utilidad mediante un modelo de Markov, considerando que los pacientes cursan la enfermedad por estados de salud bien definidos y mutuamente excluyentes. El modelo asume una cohorte homogénea de pacientes, los cuales inician tratamiento con Cetuximab o mejor tratamiento de soporte (BSC). La perspectiva de la evaluación fue desde la perspectiva del Sistema Nacional de Salud, por lo que fueron incluidos los costos directos para el sistema y años de vida ajustados por calidad como resultados en salud. **RESULTADOS:** En el caso base la estrategia de tratamiento con Cetuximab produce un mayor beneficio comparado con el BSC (aumento de QALYs de 0,25). Pero la relación costo-utilidad incremental es de $U 4162051 (USD 190483) por QALY respecto al BSC .Fueron evaluados varios escenarios posibles y su impacto en la relación costo-utilidad incremental (ICER), incluyendo variaciones de las utilidades y costo pero en ninguno de los escenarios planteados la estrategia Cetuximab resulto ser costo-efectiva.**CONCLUSIONES:** Los resultados muestran que para el caso base o cualquiera de los escenarios ensayados en esta evaluación, la inclusión de Cetuximab al Formulario Terapéutico de Medicamentos no es una estrategia de tratamiento costo-efectiva para el tratamiento del cáncer colorrectal metastásico en última línea.

PCN47: FEDERAL PURCHASES OF IMATINIB MESYLATE, TRASTUZUMAB AND L-ASPARAGINASE IN BRAZIL, 2004-2013

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OBJECTIVES: To analyze the purchase profile of antineoplastic drugs imatinib mesylate, trastuzumab and L-asparaginase by Brazilian federal agencies and the behavior of acquisitions in terms of quantities and prices.**METHODS:** Exploratory study of purchases of imatinib mesylate 100 mg and 400 mg, trastuzumab 440mg vial and L-asparaginase 10.000UI vial performed between January/2004 and December/2013. Records were extracted from the Integrated General Services Administration federal database. Quantity, unit price, purchase date, type of purchase (regular or lawsuits) and federal buyer agency were analyzed. The annual weighted average unit price (WAUP) of each medicine was calculated. Current values were corrected by the National Consumer Price Index (IPCA) to December 2013. **RESULTS:** The purchased quantities of imatinib and trastuzumab increased progressively each year and their WAUP showed a decreasing trend in all federal agencies. The Ministry of Health (MoH) was the main buyer. Reductions of WAUP were observed between 2009/2010 for imatinib even before the centralization of purchase by MoH in 2011. The incorporation of trastuzumab by the Brazilian Health System (SUS) and centralized purchases by the MoH (2012) resulted in a 57% reduction in WAUP. Prices and quantities of L-asparaginase varied between government agencies. The untoward 117% price rise in the centralized purchase by MoH (2013) may reflect shortages in the world market. Surprisingly there were no purchases related to health litigation for this medicine in the entire period. **CONCLUSIONS:** Acquisitions presented increasing volumes of purchases and reductions in WAUP, with the exception of L-asparaginase. The centralization of procurement of imatinib and trastuzumab by MoH seems to justify the observed price reductions and reinforces the use of federal purchasing power in pricing negotiations to improve access to medicines in SUS.

CANCER - Patient-Reported Outcomes & Patient Preference Studies

PCN48: RELATIONSHIP BETWEEN NON COMPLIANCE TO CLAIM MEDICATION IN PHARMACY AND INCIDENCE OF HOSPITALIZATIONS IN PATIENTS WITH BREAST CANCER

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OBJECTIVES: evaluate the relationship between the non compliance to the claim of medication and incidence of hospitalization in patients with breast cancer in oral antineoplastic therapy. **METHODS:** case-control study in patients with breast cancer, that claimed their medicines in pharmacies between january of 2012 and December 2014. Was defined as a case patients that during the observation period claimed their drugs in pharmacy <95% of the time. The sample size was calculated for a proportion of cases exposed 40% an OR of 3.7, a relation case-control 1:2, a 95% confidence and an potency 80%. The final sample was composed of 40 cases and 80 controls (randomly selected from the same cases population). For univariate analysis was used absolute and relative frequencies and summary measures. For binary analysis contingency tables, chi-square tests. The statistical measure of force used was the Odds Ratio. **RESULTS:** the proportion of hospitalized patients who did not comply with the claim of medicines in pharmacy was 45.7% (p:0.06). The non adherent patients were hospitalized 2.14 times more than compliant patients, (OR 2.14 [IC95% 0.94-4.8]). If we avoided the non compliance claim of medications in pharmacies, we would avoid 24% of hospitalizations (FA 24% [IC95% 5.4%-5.7%]). **CONCLUSIONS:** the non compliance to claim medication in pharmacy is a influence factor increased in the incidence of hospitalization in breast cáncer patients.

PCN49: HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH LOCALIZED PROSTATE CANCER USING EQ- 5D- 3L

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OBJECTIVES: New treatments in prostate cancer intend to have more precise techniques to reduce side effects and improve quality of life. The aim of this study was to estimate health related quality of life of patients with localized prostate cancer undergoing robot-assisted laparoscopic prostatectomy or conventional open prostatectomy. **METHODS: P**rospective cohort study was conducted from March 2014 to January 2015. All patients that were diagnosed with localized prostate cancer answer the EQ -5D 3L and then went to robot-assisted laparoscopic prostatectomy or conventional open prostatectomy as recommended by their doctor. They also answered the questionnaire at hospital discharge and at six month follow-up using, in a reference cancer hospital in Rio de Janeiro. **RESULTS:** Median age was 60.06 years, prostate specific antigen in the open surgery was 9.25±4.59 ng/dl and 8.15±4.34 ng/dL in the robotic surgery, blood loss was higher in the open surgery. Among the 18 patients in the open surgery and the 27 in the robotic surgery the most significant result was the loss of quality of life in the group of open surgery at hospital discharge with less 10 points in the VAS and less 10.9% in utility (statistically and clinically significant) comparing to baseline. The difference between the two techniques is 11% when observed the loss in the VAS of the open surgery group and the gain in the robotic surgery. At six months the change in quality of life was not significant when compared to baseline, suggesting that this is not sustained over time. **CONCLUSIONS:** This study helps in discussion about the benefits of robotic prostatectomy over the open procedure. Even with a significant difference between the two techniques in the immediate postoperative period favoring robotic surgery, this difference was not maintained at six months, which may not justify the higher costs of this procedure.

PCN50: BODY IMAGE AND SEXUAL PROBLEM IN YOUNG BREAST CANCER PATIENTS IN SOUTH INDIAN POPULATION

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OBJECTIVES: The purpose of this study was to determine the frequency of body image and sexual problems after 12 month of follow up among women diagnosed with breast cancer at age 35 or younger. Types of breast cancer treatment effect physical appearance as loss of the body part, disfigurement, scars or skin changes. The goal of this paper is to comprehend the body image and sexual distress of newly diagnosed younger survivors. **METHODS:** A multi-ethnic population-based sample of 72 out of 124 women aged 21–35 who were married or in a stable unmarried relationship were interviewed with in situ, or regional breast cancer. The women participating in this study were underwent treatment from 2003 to 2013 at 2 different hospitals located in south India. **RESULTS:** Body image and sexual problems were experienced by a substantial proportion of women after diagnosis or treatment. Different type of treatment patterns were used as 59 (81.94%) women underwent surgery, 39 (54.1%) were treated with CMF chemotherapy, 54 (72.2%) women underwent hormonal therapy and remaining with radiotherapy. The Hopwood Body Image Scale was used for the assessment of the body image perception which shown less physically attraction in most of the patients with self-consciousness, seeing themselves naked in mirror and dissatisfied with scars on their body. The Female Sexual Distress Scale (FSDS) was used to assess the sexual distress in women with breast cancer. The mean score was 24.4 (47%) which relatively shows higher sexual distress with the major sexual problem; distress about sex life, Frustration by the sexual problems, Dissatisfaction with sex life and inferiority because of sexual problem among the women. **CONCLUSIONS:** Difficulties related to body image and sexuality were common and occurred soon after surgical and adjuvant treatment. Addressing these problems is essential to improve the quality of life of young women with breast cancer.

PCN51: DIFFERENCES IN PHARMACISTS' SKIN CANCER PREVENTION STRATEGIES BY AGE AND GENDER

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OBJECTIVES: The purpose of this study is to describe pharmacists' personal skin cancer prevention strategies and to determine if there were differences based on age and gender.**METHODS:** Pharmacists registered and living in Arizona with an email address with the State Board of Pharmacy were eligible for the study. A questionnaire was developed based on questions from the National Health Iinterview Survey. The questionnaire included preventive strategies, knowledge, clinical outcomes, and demographic questions. The questionnaire was administered by using an electronic, on-line survey form. Two emails with a link to the questionnaire site were used to recruit participants. Prevention strategies assessed included the use of sunscreen, protective clothing (wearing a hat, a cap, long-sleeved shirt or pants), or seeking shade. **RESULTS:** A total of 261 pharmacists responded; their average age was 44.9(SD = 13.7) and there were 167 women and 94 men. Men and women used a similar number of strategies (mean = 2.0, SD = 1.3; mean = 1.9, SD = 1.1, respectively; p = 0.058), however, the types of strategies used differed. Men were more likely to wear a baseball cap (p<0.001) and a long sleeved shirt(p=0.018). Women were more likely to use sunscreen(p=0.001). Older pharmacists(>40) were more likely to wear a hat than younger pharmacists (p<0.001). Clinical outcomes did not differ by gender but did differ by age. Older pharmacists were more likely to have had a sunburn with blisters than younger pharmacists(p=0.004) and older pharmacists were more likely to report a diagnosis of a precancerous skin lesion (p<0.001) or a diagnosis of skin cancer(p = 0.004).**CONCLUSIONS:** Men and women pharmacists used a similar number of skin cancer prevention strategies but women were more likely to use sunscreens. Older pharmacists were more likely to use protective clothing and to report a diagnosis of skin cancer.

PCN52: ACCESS INEQUALITIES BETWEEN PRIVATE AND PUBLIC INSURANCE AMONG CANCER PATIENTS: RESULTS OF A NATIONAL SURVEY IN BRAZIL

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OBJECTIVES: An estimated 70% of the Brazilian population is covered exclusively by the public healthcare system; consequently, many patients with cancer must rely on few public institutions for oncology care. This study investigated the impact of insurance type on access, health-related quality of life (HRQoL), mood and sleep related outcomes for real-world cancer patients in Brazil. **METHODS:** Data came from the 2011 (n=12,000), 2012 (n=12,000), & 2014 (n=9,082) Brazil National Health and Wellness Survey, an internet-based general health survey representative of the general population in age and gender. Among 33,082 respondents, 1,019 reported a cancer diagnosis. Respondents were categorized into public insurance (n=405) or private insurance (n=614). Initial analyses used one-way ANOVAs and chi-squares, and generalized linear models were used to control for demographic and health characteristics (e.g., income) to isolate differences in HRQoL, mood and sleep disorders, and healthcare resource use according to insurance type. **RESULTS:** Those with private insurance were more likely to be white (76.9%), have completed their degree (57.5%), have annual household income ≥R$6501 (49.8%), be obese (23.9%), and drink alcohol (69.4%). Those on private insurance were also more likely to report having generalized anxiety disorder (9.0% vs. 4.7%) and overall sleep issues (50.2% vs. 43.5%) than those on public insurance. After controlling for covariates, those with private insurance reported a higher mean number of doctor visits (9.87 vs. 6.58), emergency room visits (1.05 vs. 0.57), and hospitalizations (0.54 vs. 0.32). There were no differences on HRQoL. **CONCLUSIONS:** Lower resource use among those on the public system indicates disparities in healthcare access among cancer patients in Brazil. HRQoL was not associated with insurance type, while mood and sleeping disorders were more common among those with private insurance. Further research is needed to understand why inequality of access is not reflected in HRQoL decrements in this population.

PCN53: IDENTIFYING CURRENT TREATMENT PRACTICES IN NON-HODGKIN'S LYMPHOMA

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OBJECTIVES: Treatment for Non-Hodgkin's Lymphoma (NHL) is highly dependent on the subtype of NHL. Indolent Lymphomas (Follicular Lymphoma (FL), Waldenstrom's Macroglobulena (WM)) are slow-growing and are generally only treated once the patient becomes symptomatic. Aggressive lymphomas (Diffuse Large B-Cell Lymphoma (DLBCL), Mantle Cell Lymphoma (MCL)) have a poor prognosis, and treatment is expected to start at diagnosis. The objective is to quantify the distribution of NHL subtypes and then compare drug treatment practices across each subtype. **METHODS:** The study used ONCO-CAPPS, a proprietary database of patient chart abstractions collected through regular surveys of **physician panels**. The data includes demographic details, disease markers, and a summary of the patients' cancer treatments from the time of diagnosis. Data were collected each quarter in 2014 and used to categorize patients with NHL based on subtype and document their sequence of treatments. **RESULTS:** Out of all NHL patients being treated, 45% had FL, 33% had DLBCL, 7% had MCL and 4% had WM. The remaining 11% had other forms of NHL. The proportion of NHL patients with FL was found to be higher than the proportion expected by incidence statistics; this may be due to the indolent nature of FL and correspondingly high survival. FL was predominantly treated with Benda/Ritux and CVP R with some patients receiving CHOP R. WM was treated with CVP R, Benda/Ritux and Bort/Dexam +/- Ritux. MCL was treated with Benda/Ritux, Stem Cell Transplant, and CHOP R. DLBCL was treated with CHOP R. The other forms of NHL had various treatment regimens. **CONCLUSIONS:** The most prevalent NHL subtypes are FL and DLBCL. Treatment decisions for NHL are highly dependent on subtype, with indolent lymphomas being treated with regimens that are easier to tolerate, and aggressive lymphomas being treated predominately with CHOP R, an aggressive regimen that is hard to tolerate.

PCN54: PATTERNS OF CARE FOR METASTATIC PANCREATIC CANCER: REAL WORLD DATA FROM THE BRAZILIAN PRIVATE HEALTH SYSTEM (PHS)

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OBJECTIVES: Treatment of metastatic pancreatic cancer (MPC) remains a challenge for oncologists worldwide, since not many innovations were added lately. From 1997 to 2011 (when the pivotal study on FOLFIRINOX was published), patients were essentially treated with gemcitabine. Recent publications show new options, such as OFF regimen. Nevertheless, there is a lack real world data showing how patients are actually treated. Our aim is to understand the treatment patterns for MPC in Brazil. **METHODS:** MPC patients receiving any line of treatment during 2014 were eligible and selected from Evidências-Kantar Health administrative claims database (comprising 4 million lives insured by 46 different private health insurance companies). After patient de-identification, data on treatments, number of cycles and demographics, were collected. The most reported treatments according to generic name were defined as patterns of care. **RESULTS:** Sixty-three patients with MPC were identified at the database, 53 in first and 10 in second line treatment. Patient baseline characteristics were: average age 63.5 years (40 to 84), 66.72 kilos (45 to 126kg), 1.65 meters of height (1.46 to 1.82m), and 1.71m2 body surface area (1.34 to 2.3 m2). The most common regimen in first line was gemcitabine monotherapy (58.5%) followed by FOLFIRINOX (37.7%) and OFF (1.88%). In second line, OFF was the most prescribed regimen (80%), followed by gemcitabine monotherapy (10%) and FOLFORINOX (10%). Most patients in first-line received 3 cycles of treatment (43.4%), 32.1% received 6 cycles, 13,2% received 12 cycles and 11,3% received variable length of treatment. Patients in second line received either 3 cycles (30%) or 6 cycles (70%).**CONCLUSIONS:** Despite the higher overall survival demonstrated by FOLFIRINOX study, the first option for first-line treatment of MPC patients is still gemcitabine. However, in second line the trend appears to be shifting towards OFF regimen.

PCN55: DIAGNOSES AND TREATMENT PATTERNS FOR NON-SMALL CELL LUNG CANCER (NSCLC) WITHIN THE PRIVATE HEALTH SYSTEM IN BRAZIL

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OBJECTIVES: There is limited data on the prevalence, rate of mutations, and patterns of treatment in a "real-world" setting in Brazil. The aim of this retrospective observational study was to evaluate the above-mentioned aspects from the private health system's perspective in the country. **METHODS:** Data from 44 HMOs on all patients with metastatic NSCLC receiving any line of treatment between September 2013 - September 2014 using Evidências-Kantar Health private market administrative claims database was analyzed. After patient de-identification, information on demographics, diagnosis, and treatment regimens and duration was collected. Prevalence of patients in each treatment line was calculated by the number of existing cases of a disease by the total population with lung cancer at one year. **RESULTS:** We identified 273 lung cancer patients of which 182 patients (66.7%) had metastatic NSCLC, and were thus eligible for analysis. The most frequent histology type was adenocarcinoma (71%) followed by squamous cell carcinoma (12%). The majority (81%) was not tested for any mutation. Among the tested patients (n=35), 1 patient was ALK+ and 17 were EGFR+. The only ALK+ patient received a second line treatment with carboplatin+pemetrexed. Of the 17 patients with EGFR mutation, 52.9% used erlotinib and 23.5% gefitinib. Patient baseline characteristics of analyzed 182 patients were: average age of 64.3 years, 67.2 kilos, 1.6 m height, and 1.74m2 body surface area. Nineteen treatment regimens were identified and most patients received 3

cycles of treatment. The most common regimens in first, second, and third-line treatments were carboplatin+pemetrexed (31%), docetaxel monotherapy (57.1%), and erlotinib (80%), respectively. The proportion of patients with NSCLC that undergo first, second, third, fourth, and fifth-line treatments in one year was 46.2/100, 20.5/100, 3.7/100, 0.7/100, and 1.1/100, respectively.**CONCLUSIONS:** Mutation testing was very low, representing a significant unmet need, as patients with mutations may not be receiving appropriate targeted treatment in first-line.

PCN56: HIGH-COST ONCOLOGIC MEDICATION ACCESS: WHY IS LATIN AMERICA FALLING BEHIND? CASE STUDY IN NON-SMALL CELL LUNG CANCER (NSCLC)

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OBJECTIVES: To understand key market access issues pertaining to reimbursement, HTA policies, guidelines, and ways to improve patient access for innovative oncologic products within Latin America (LA) in comparison to a developed market (Canada). **METHODS:** A panel of opinion leaders and policy-makers from Brazil, Colombia, Argentina, Mexico, and Canada was convened to understand current challenges in health care, patient access, and reimbursement of high-cost oncologic products with a focus on NSCLC. **RESULTS:** In LA, patient access to biomarker testing in all cancers is limited, except for common biomarkers like HER2 in breast cancer. In Canada, there is no uniform coverage across provinces for diagnostic testing. In LA, there is an inconsistent and varied level of prioritization in public and private markets amongst various cancers (e.g. breast) for which access to high-cost oncologic agents is more likely. Specifically, NSCLC is not prioritized because of its perceived association with smoking and “poor prognosis”. It is unlikely in LA for expensive medications to be included in the standard benefit packages, and the review process can be lengthy for those that are included. Some patients may get access to some medications through filing a judicial claim against the government for individual drug cost reimbursement. Although various LA countries are witnessing evolution in some form, unlike in Canada, HTA does not have a substantial influence on payer decision-making on drug coverage. There was a consensus for enrolling more patients in clinical trials, development of regional/local clinical guidelines, and generating real-world and cost-effectiveness evidence to potentially improve reimbursement and shorten time to access to medications. **CONCLUSIONS:** Access to high-cost oncologic medications could be potentially improved through increased patient participation in clinical trials, generation of relevant guidelines and robust cost-effectiveness and evidence-based analyses, and implementation of risk-sharing agreements requiring innovative cancer care models.

PCN57: UTILIZACION DE SERVICIOS DE SALUD PARA EL TRATAMIENTO DE CÁNCER DE PULMON EN VENEZUELA

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OBJECTIVOS: Estimar la utilización de servicios de salud para el tratamiento del cáncer de pulmón en centros especializados. **METODOLOGÍAS:** Se realizó un estudio retrospectivo, con una muestra representativa de 100 historias clínicas de pacientes con ingreso por cáncer de pulmón en 2013 en tres hospitales. Se elaboró una base de datos con el registro de utilización de servicios antes del ingreso y durante el tratamiento en el hospital**. RESULTADOS:** La edad promedio al ingreso fue 43 años. El 35% de los pacientes eran hombres, y el 65% eran mujeres. El 74% eran fumadores. Antes del ingreso, 11% de los pacientes recibió radioterapia, 9% quimioterapia y en el 15% se realizó cirugía. El marcador tumoral EGFR fue reportado en una historia. En el 61% de las notas de ingreso, se indicó el resultado de la biopsia. Luego del ingreso, el peso del paciente fue reportado en el 41% de las historias, la talla en el 66%. En el 33% de las historias se registró el estadio del cáncer en la primera consulta. El promedio de consultas por paciente fue 6. El 2% de los pacientes requirió ingresos por emergencia. El 18% de los pacientes fue hospitalizado en el período de reporte. El marcador tumoral EGFR se reportó en 11% de las historias, en 38% los valores de LDH. En el período analizado, el 53% de los pacientes recibió quimioterapia y el 10% radioterapia. **CONCLUSIONES:** De acuerdo con cifras oficiales, el cáncer de pulmón representó en 2012 el 14,83% de la mortalidad en Venezuela. El trabajo constituye el primero en la literatura venezolana para la estimación de servicios utilizados en el tratamiento respectivo. Los resultados son un aporte para la determinación de los costos involucrados, así como para la revisión de los estándares de atención en los servicios de salud.

PCN58: UTILIZACION DE SERVICIOS DE SALUD PARA EL TRATAMIENTO DE CÁNCER DE ESTOMAGO EN VENEZUELA

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OBJECTIVOS: Estimar la utilización de servicios de salud para el tratamiento del cáncer de estómago en centros especializados. **METODOLOGÍAS:** Se realizó un estudio retrospectivo, con una muestra representativa de 100 historias clínicas de

pacientes con ingreso por cáncer de estómago en 2013 en tres hospitales. Se elaboró una base de datos con el registro de utilización de servicios antes del ingreso y durante el tratamiento en el hospital. **RESULTADOS:** La edad promedio al ingreso fue 48 años. El 51% de los pacientes eran hombres, y el 49% eran mujeres. Antes del ingreso al servicio de oncología, 3% de los pacientes recibió radioterapia, 5% quimioterapia y en el 52% de los casos se realizó cirugía. No se registró la realización de marcadores tumorales (ALK, EGFR, BRAF, y PDL1). En el 64% de las notas de ingreso, se indicó el resultado de la biopsia. Luego del ingreso, el peso y la talla fueron reportados en el 67% de las historias. En el 28% de las historias se registró el estadio del cáncer en la primera consulta. El promedio de consultas por paciente fue 4. En el período analizado, el 32% de los pacientes fue hospitalizado, el 30% recibió quimioterapia y el 6% radioterapia. El 7% de los pacientes requirió ingresos por emergencia. No se reportaron marcadores tumorales durante el tratamiento en el hospital. En 32% de las historias se indicaron los valores de LDH. **CONCLUSIONES:** De acuerdo con cifras oficiales, el cáncer de estómago representó en 2012 el 16,64% de la mortalidad en Venezuela. El trabajo constituye el primero en la literatura venezolana para la estimación de servicios utilizados en el tratamiento respectivo. Los resultados son un aporte para la determinación de los costos involucrados, así como para la revisión de los estándares de atención en los servicios de salud.

PCN59: REAL WORLD DATA ON COLONY-STIMULATING FACTORS (CSF) IN ONCOLOGY: PATTERNS OF USE IN BRAZIL

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OBJECTIVES: Incorrect use of colony stimulating factors (CSF) can add unnecessary cost to cancer treatments and adverse events to patients. We conducted an epidemiological study to assess the correlation between CSF use recommendations issued by the Brazilian Regulatory Agency of Health (ANS) and technical recommendations stated by international guidelines. We also analyzed the main reasons for not recommending the use of CSF, in patients during chemotherapy. **METHODS:** Data on patients treated with CSF during 2014 was retrieved from Evidências - Kantar Health database of administrative claims, which comprises more than 4 million people and 46 Private Health Insurance Companies (PHIC) in Brazil. Demographic assessment, types of tumor, number of patients, treatment purpose, technical recommendation, ANS recommendation, reason for not recommending and class of requested CSF were assessed. **RESULTS:** We retrieved 440 CSF requests corresponding to 322 patients. 188 requests were recommended both technically and by ANS. In 200 claims, CSF use was not recommended by either guidelines or ANS; and only 30 claims were in discordance, as CSF use was recommended by guidelines but not by ANS. Reasons for technical non-recommendation were: requests for primary prophylaxis on chemotherapy regimens with risk of febrile neutropenia below 20% and no complicating factors (37.5%), secondary prophylaxis in palliative care setting (26%) or request based on complete blood count (CBC) collected at the nadir of chemotherapy. **CONCLUSIONS:** Administrative recommendations from ANS are in close agreement with the scientific literature. Nevertheless, despite clear international guidelines and ANS recommendation, there is still a gap in physicians' knowledge about the correct indications for CSF. Continual medical education on this topic should emphasize the following of protocols to ensure proper CSF use.

PCN60: REGULATORY APPROVAL FOR ONCOLOGY PRODUCTS IN BRAZIL: A COMPARISON BETWEEN THE FDA AND ANVISA APPROVAL TIMELINES

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INTRODUCTION: Inequitable access to oncology care between the USA and Brazil is frequently attributed to delays in regulatory approval by ANVISA **OBJECTIVES:** The purpose of this research was to estimate the differences in regulatory approval timelines between the FDA (USA) and ANVISA (BRA) for oncology therapies, while distinguishing between delays in manufacturer application submissions and ANVISA regulatory processes, to understand how these delays may create inequitable patient access to care **METHODS:** A basket of twenty-three oncology products approved by ANVISA after 2002 were surveyed to evaluate the differences in regulatory submission and approval dates between the USA and Brazil The ANVISA and FDA regulatory approval timelines were calculated by obtaining the difference between submission and approval dates of each product's regulatory applications; comparisons between the FDA and ANVISA timelines were drawn by taking the difference in each of the regulatory bodies' average approval time for all products Delays in the manufacturers' submission for regulatory approval in Brazil were calculated by comparing the FDA and ANVISA application submission dates for each product **RESULTS:** The analysis revealed that on average there was a difference of 8.6 months between ANVISA and the FDA's regulatory approval process, with ANVISA averaging approximately 449 days and the FDA 186 days from submission of an application to regulatory approval On average, between Brazil and the USA, the products surveyed demonstrated a delay in the manufacturers' submission for regulatory approval of 1.1 years (393 days) **CONCLUSIONS:** The results of this study indicate that there are significant differences in the regulatory approval timelines between the FDA and ANVISA which raise significant concerns over access to equitable treatment for oncology patients in these two countries. Importantly, although delays in ANVISA approval are significant, the manufacturer's submission timing has also considerably contributed to delayed patient access to new oncology therapies in Brazil.

PCN61: THE IMPACT OF THE U.S. ODAC DECISION ON AVASTIN PRESCRIBING FOR METASTATIC BREAST CANCER

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OBJECTIVES: Breast cancer is the second most common cause of cancer-related death. Women with metastatic disease have low

survival rate due in part to the lack of effective treatments. In 2008, the U.S. Food and Drug Administration (FDA) granted an accelerated approval of Avastin to treat metastatic breast cancer (MBC) in combination with paclitaxel. In July 2010, the Oncologic Drug Advisory Committee (ODAC) voted unanimously to withdraw the approval. This decision was contested by many including the European Medicine Agency (EMA) and the National Comprehensive Cancer Network (NCCN). Despite this disagreement, the FDA revoked the approval by the end of 2011. This study examined the impact of ODAC's decision on prescribing practices in 2011. **METHODS:** Truven MarketScan™ claims data from 2006 – 2011 was used as the data source. The sample included women ≥18 years who received specific chemotherapy agent listed in the NCCN treatment guidelines for MBC. A difference-in-difference model compared Avastin use before/after the 2010 ODAC decision using colorectal cancer to form the control group. **RESULTS:** Providers were about 41% (p<0.00) less likely to prescribe Avastin after 2010. Region impacted this associated. Prescribers in North central, South and West were approximately 3.3 – 10.0% (p<0.00) more likely to prescribe Avastin than prescribers in the Northeast. **CONCLUSIONS:** The magnitude of the utilization decrease in 2011 is higher than expected. However, we speculate that conflicting information on Avastin's effectiveness led to greater reliance on the ODAC decision by providers. Only one other study has examined the impact of ODAC and our results are consistent with their findings. The impact of region on prescribing practices may be due to the high concentration of academic medical centers in the North east. The FDA needs to fully understand the impact of their advisory bodies on influencing providers when considering the public's health needs.

PCN62: EVOLUTION OF TREATMENT PARADIGMS IN METASTATIC CASTRATE-RESISTANT PROSTATE CANCER

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OBJECTIVES: The treatment landscape for metastatic castrate-resistant prostate cancer (mCRPC) has changed following the introduction of new agents abiraterone, denosumab and cabazitaxel in 2011, and enzalutamide in 2013. The objective of this study was to quantify treatment trends for mCRPC. **METHODS:** Chart audit data from patients with mCRPC was collected quarterly from 2012 to 2014 from a physician panel of urologists, uro-oncologists and medical oncologists. Data included patient demographics, disease characteristics, and treatment details. Treatment regimens were categorized into: ADT, new oral agents, or chemotherapy. The use of bone-targeted agents (BTAs) was also noted. **RESULTS:** The percentage of mCRPC patients being treated with oral treatments increased from 9% in 2012 to 15% in 2013 to 61% in 2014 across all lines of treatment. The usage of BTA in order to reduce the risk of skeletal related events increased from 61% to 69% to 80% over the three years. In addition, patients are initiating treatment with BTA sooner after confirmation of bone metastases on bones can. The percentage of patients initiating treatment upon confirmation of bone metastases increased by 93% from 2012 to 2014. **CONCLUSIONS:** There has been a strong uptake of new oral agents for the treatment of mCRPC. A greater proportion of patients are receiving BTA as compared with 2012, and physicians are now less likely to delay initiating BTA treatment.

PCN63: ANÁLISIS DEL COMPORTAMIENTO DEL CÁNCER DE MAMA EN UNA ASEGURADORA COLOMBIANA

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OBJECTIVOS: analizar el comportamiento de pacientes con cáncer de mama a partir de la información de gastos y costos reportada en el 2013 en una aseguradora colombiana del régimen contributivo.**METODOLOGÍAS:** a partir de la información de uso de servicios reportados y consolidados en el año 2013, se desarrolló un análisis descriptivo de los pacientes identificados con cáncer de mama afiliados a Coomeva-EPS, los pacientes fueron identificados por los diagnósticos según el código CIE-10. Se estimó, caracterizó e identificaron los costos de atención de cada paciente y sus variaciones por características epidemiológicas, discriminando los resultados por departamento. En el análisis solo se incluyen costos reconocidos dentro del plan de beneficios colombiano. **RESULTADOS:** se identificaron 2692 pacientes únicos con cáncer de mama que correspondería a una prevalencia de 0,092% del total de afiliados, siendo el 98% mujeres con una edad promedio de 55 +/-12,7 años. El costo promedio anual por paciente fue de $10.385.724 con variaciones importantes por regiones, siendo la población atendida en Bolívar la de mayor costo ($19.408.590). Desde el punto de vista de distribución geográfica la mayor cantidad de pacientes se encuentran en Valle del Cauca y Antioquia, pero en proporciones similares según la cantidad de población afiliada. Desde el punto de vista de intervenciones, el 11,92% recibió tratamiento quirúrgico durante ese mismo año. El 49,69% del costo es hospitalario y los medicamentos ambulatorios corresponden al 24,32% del total. **CONCLUSIONES:** el costo promedio por paciente con cáncer de mama equivale a 18,25 veces la unidad de pago por captación para el año 2013 y su alta prevalencia impacta en los costos, siendo el 2,08% del costo total de la prestación en salud para el año y el 46,03% del total de los gastos en cáncer. Con este análisis se justifica el diseño de estrategias de gestión específica.

PCN64: EXPLORATORY ANALYSIS OF APAC VALUES VERSUS RECOMMENDED TREATMENT GUIDELINES FOR METASTATIC NON-SMALL CELL LUNG CANCER (MNSCLC) IN THE BRAZILIAN PUBLIC HEALTHCARE SYSTEM

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OBJECTIVES: Reimbursement of oncology treatments by Brazilian Public Health System (SUS) is controlled by the Authorization for High Complexity Procedures (APAC) system. Each treatment line has an APAC code associated with a specific reimbursement value that should cover all drug expenses in one month. However, with innovation and more expensive drugs that have been launched, these fixed values may not be enough to cover drug expenses. In this context, our objective was to compare costs of recommended

treatments with values reimbursed by the APAC system. **METHODS:** We reviewed NCCN (National Comprehensive Cancer Network) guidelines for mNSCLC and analyzed recommended chemotherapy regimens. Regimens costs were calculated and compared to the APAC value for metastatic NSCLC which reimburses only 1,100.00BRL (~343.75USD) per month. Drugs maximum sales price for government without taxes were used. For the drugs that already have generics, calculations were made in two different ways: mean price or the lowest price. The following parameters were used to calculate regimens costs by milligrams approach: age 65, weight 70kg, and body surface 1,70m2. **RESULTS:** Ten different regimens are recommended for metastatic NSCLC, two target therapies, four bevacizumab and two pemetrexed based regimens, and other 3 older regimens. By considering mean costs of drugs whose patents expired, the APAC value does nt cover any regimen. Costs ranged from 574BRL (~179,30USD) to 14,204BRL (~4,439USD). With the approach of the cheapest drug in the market, only three regimens are covered by the APAC: cisplatin+docetaxel (574BRL~179USD), carboplatin+docetaxel (1,002BRL~313USD) and carboplatin+paclitaxel (984BRL~307USD). In addition, with the exception of target therapies, all regimens are recommended for 21 days, being two months of APAC correspondent to 3 cycles. Considering this time mismatch, only cisplatin+docetaxel fits the APAC. **CONCLUSIONS:** Our analysis indicated that patients may not have access to recommended treatment because the reimbursement system is not updated to the advent of new technologies.

PCN65: A PHARMACOECONOMIC ANALYSIS OF COSTS FROM THE TUMOR BANK OF THE INSTITUTO NACIONAL DE CANCEROLOGIA MEXICO

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OBJECTIVES: To estimate the budgetary impact of the samples produced by the Tumor Bank of the 'Instituto Nacional de Cancerología' of Mexico in order to set a recuperation fee for the samples that provides from the perspective of the Health Sector of Mexico. **METHODS:** The study was an observational, retrospective review of the direct medical costs (CDMs) of each of the processes involved in the cryopreservation of samples collected at the tumor bank, on a per sample basis. Including materials, laboratory tests, personnel and administration costs. Materials and labor costs were determined from hospital information. Costs were determined depending on the sample: plasma, tissue and biopsy and costs were calculated depending on the process required to preserve each kind of sample. Sensitivity analysis was performed using bootstrap. **RESULTS:**Recuperation costs range from 130 to 155 USD. These costs were considered on a five-year time frame for the maintenance per sample, which is the average time a sample is kept in the bank. **CONCLUSIONS:** This cost analysis, perceive an adequate recuperation fee per sample needed in order to guarantee the correct development of the bank.

PCN66: SOBREVIDA DE CINCO ANOS E FATORES ASSOCIADOS AO CÂNCER DE BOCA PARA PACIENTES EM TRATAMENTO ONCOL"GICO AMBULATORIAL PELO SISTEMA ÚNICO DE SAÚDE, BRASIL

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OBJETIVOS: Analisar a sobrevida específica de cinco anos e fatores associados para câncer de boca no Brasil **MÉTODOS:** Trata-se de coorte retrospectiva, cuja fonte de dados foi a Base Onco, que realizou o relacionamento probabilístico-determinístico de todos os registros de autorização para radioterapia e/ou quimioterapia pelo Sistema Único de Saúde, entre 2000 e 2006, gerando-se cadastro único para cada paciente. O evento de interesse foi o tempo decorrido entre o diagnóstico do câncer de boca e o óbito por este câncer. O Modelo de Regressão de Cox foi utilizado para avaliar os fatores individuais associados ao evento de interesse. **RESULTADOS:** O presente estudo incluiu os pacientes diagnosticados entre 2002 e 2003 com câncer de boca, exceto lábio, e idade entre 19 e 100 anos (N = 6.180). A taxa de sobrevida específica em cinco anos foi de 60%. Foram associados à menor sobrevida específica: ter idade > 40 anos; apresentar estádio III ou IV; localização em língua, assoalho de boca e base de língua; não realizar tratamento cirúrgico, realizar somente quimioterapia ou radioterapia e quimioterapia e residir em determinados estados do Brasil. **CONCLUSÕES:** Os resultados reforçam a necessidade de incluir a avaliação das disparidades dos territórios de planejamento como possibilidade para incrementar as ações de saúde e melhorar os indicadores de sobrevida

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PCN67: CHANGE IN THE DEMOGRAPHIC PROFILE AND IMPACT IN THE MORTALITY OF MELANOMA AND LUNG CANCER IN PUERTO RICO 2000-2010

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OBJECTIVES: : The demographic profile of Puerto Rico is changing; according the 2000 and 2010 Census of the Population, Puerto Rico has 3810,605 and 3,722,133 inhabitants, respectively. In this period the population of 65 years or older increased from 11.2% to 15%; the median age increased from 33.8 years in 2004 to 37.0 years in 2010. The extent to which these population changes affect cancer mortality is not known. The objective was: to assess the impact of changes in the demographic profile of Puerto Rico from 2000 until 2010 on melanoma and lung cancer mortality. **METHODS: :** The method of Bashir and Esteve (2000) was applied in this study. The baseline group was the year 2000 and the comparison group the year 2010. The mortality of these groups was assessed according: population size, structure of the population and risk. The population was age adjusted. The mortality of melanoma and lung cancer is from the National Centre of Health Statistics and the population from the Census Bureau (2000, 2010). **RESULTS:** The net change in melanoma mortality was one death; there was an increase of 6 deaths due to change in the structure and a decrease of 5

deaths due to change in the size (1) and due to risk (4). Net change in lung mortality was 22 deaths; an increase of 166 deaths due to change in the structure and a decrease of 144 deaths, 14 due to change in the size and 130 due to risk. **CONCLUSIONS:** Melanoma and lung cancer mortality in Puerto Rico has been affected by the change in the demographic profile, resulting in an increase in the number of deaths for these two types of cancer. The scope of cancer health services should be evaluated in light of this demographic change.

CARDIOVASCULAR DISORDERS - Clinical Outcomes Studies

PCV1: COSTO-EFECTIVIDAD DE UN PROGRAMA DE NEFROPROTECCION EN UNA COHORTE DE 17.000 PACIENTES CON ENFERMEDAD RENAL CRONICA AFILIADOS A UNA ASEGURADORA EN SALUD EN COLOMBIA

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La enfermedad renal crónica (ERC) es una condición de salud pública en aumento en Colombia y en el mundo. La intervención temprana de los factores de riesgo disminuye su impacto en la morbilidad, mortalidad y costos de atención. **OBJECTIVOS:** Evaluar la costo-efectividad de un programa de nefroprotección en una cohorte de pacientes con ERC, hipertensión arterial (HTA) y/o diabetes mellitus tipo II (DM), afiliados a una aseguradora en salud en Colombia. **METODOLOGÍAS:** Se construyó un modelo de Markov en MS Excel ® para representar la historia natural de la ERC considerando 4 estadios de la enfermedad según su progresión, comparando tres alternativas de intervención: atención regular de usuarios sin programa (alternativa A), programa de nefroprotección inicial (alternativa B) y programa de nefroprotección avanzado (alternativa C). Los costos directos fueron incluidos, de acuerdo con la información disponible en la aseguradora. La medida de resultado fueron Años de vida ajustados por calidad (AVAC) tomados de la literatura. Las probabilidades de transición se calcularon a partir del seguimiento de 16.992 pacientes con diagnóstico de ERC, HTA y/o DM, mayores de 18 años de edad, en 16 ciudades del país, durante los años 2010 a 2013. El horizonte temporal fue la vida. La perspectiva fue del tercer pagador. Se realizaron análisis de sensibilidad determinísticos y probabilísticos. **RESULTADOS:** La alternativa B mostró un comportamiento dominado. El análisis de costo-efectividad entre la alternativa A y C muestra un ICER de USD $ 4.826,51 por AVAC a favor de C. **CONCLUSIONES:** Dada la disposición a pagar de 1 PIB per cápita para el país, el programa de nefroprotección avanzado es una opción muy costo-efectiva. Esta evaluación puede ayudar a los tomadores de decisiones a mejorar la asignación de recursos en países en vías de desarrollo al estimular la implementación de estrategias preventivas en patologías crónicas.

PCV2: EFFECTIVENESS OF THE ST2 FOR PROGNOSIS IN HEART FAILURE: SYSTEMATIC REVIEWS

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OBJECTIVES: ST2 reflects activity of the cardioprotective signal and is a prognostic marker in heart failure. The aim is to assess the effectiveness of the ST2 for determination of the prognosis of patient with heart failure.**METHODS:** We searched the 8 Korean databases and overseas databases including Ovid-MEDLINE, Ovid-EMBASE and Cochrane Library. A total 365 studies were searched through search strategy and total of 19 studies were included in the final assessment by the selection criteria. Each of the stages from literature search to application of selection standards and extraction of data were carried out independently by 2 researchers. We used tools of Scottish Intercollegiate Guidelines Networks(SIGN) for assessment of the quality of literature. **RESULTS:** The effectiveness of the ST2 was assessed by means of association with prognosis(risk ratio(RR) or odds ratio(OR), accuracy of forecasting of the prognosis, stratification of risk), correlation with the comparative test and relevance with clinical symptoms. The RR or OR of the death arising from ST2 was 1.01~4.56, the RR of hospitalization was 1.054~2.4. On the other hand, RR of hospitalization of BNP was 1.15~2.0, the RR or OR of death arising from NT pro-BNP was 0.19~1.241. The sensitivity/specificity of the test was respectively 64~87%/51~82% and AUC values were 0.689~0.84. The stratification of risk (NRI values) on the death rate were reported to be significant at 9.4 and 9.9 in the 2 papers, respectively, the other 1 paper reported stratification of risk of the death rate of 0.049 and stratification of risk of hospitalization rate of 0.0638. The correlation coefficients with BNP was 0.16~0.409 and with NT pro-BNP was 0.28~0.523. The correlation coefficient with the peak VO2was 0.30 and with 6-minute walk distance was 0.22. **CONCLUSIONS:** The ST2 is effective in determining the prognosis of patients with heart failure and useful in treating heart failure.

PCV3: AN OPEN LABEL, ONE ARM STUDY TO EVALUATE THE EFFICACY AND SAFETY OF CEREBROLYSIN IN PATIENTS WITH ACUTE SEVERE ISCHEMIC STROKE IN MEXICO

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OBJECTIVES: We aim to evaluate the efficacy and safety of cerebrolysin in Mexican patients with acute severe ischemic stroke (ASIS) and to describe their demographic and clinical characteristics along with their comorbidities and adverse events. **METHODS:** Open label, one arm, and dose decreasing exploratory study in 30 consecutive patients from “Unidad Hospitalaria Cruz Verde Dr. Delgadillo Araujo” with ASIS starting within 48 hours from the onset of stroke; they received 50 ml of intravenous cerebrolysin daily for 10 days

followed by 10 days of 30 ml. All patients underwent CT scan and were examined using the National Institutes of Health Stroke Scale (NIHSS) score and Modified Rankin Scale (≥ to 12 and ≥ 3, respectively) score at baseline as well as on day 15 after hospital discharged. Difference between measures was evaluated with paired Student's t statistic. **RESULTS:** The patients mean age was 60.26 ± 11.2 years, 16 (53%) were male and a majority were between 50-70 years (60%). 19 patients reported at least one physical comorbidity (63.3%), the most frequently reported comorbidities were hypertension, diabetes mellitus and atrial fibrillation (n=10, 33%; n=9, 30%; n=1, 3% respectively). Pretreatment mean score on the NIHSS scale was 20.4, SD 3.9, 95 CI [18.9 - 21.82]; mean Modified Rankin Scale (mRs) was 3.8 , SD 0.8, 95 CI [3.4 - 4.1]. At day 15 follow-up NIHSS, was 11; SD 4.5; 95 CI [9.3 - 12.8]; mean mRs score was 1.9, SD 0.7, 95 CI [1.7 - 2.2], (p = 0.000 and 0.000 respectively).Only one patient report nightmares as adverse event. **CONCLUSIONS:** The current study demonstrate that cerebrolysin treatment improves functional outcome safely in Mexican patients with ASIS. Future double-blind studies with larger sample sizes will further help to explore causal benefits of this drug in stroke outcome.

PCV4: A PHYSICIAN-CENTERED INTERVENTION TO IMPROVE CONTROL OF BLOOD PRESSURE: SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: To review trials of physician-centered interventions to reducing systolic blood pressure (SBP) and diastolic blood pressure (DBP). **METHODS:** Systematic review and meta-analysis. We searched MEDLINE, EMBASE and Cochrane Central for all-language articles up to September 2014. We included randomized controlled trial (RCT) of physician-centered interventions for hypertension compared with usual care or minimal intervention in primary care patients. Data were pooled using a random effect meta-analysis model. The effect were expressed as the weighted mean difference (WMD). **RESULTS:** Twenty-five trials of 7595 citation were included. Seventeen studies were cluster RCT, one trial was factorial and cluster trial. The remaining seven studies were randomized at individual patient level; five of them used a two-by-two factorial design. Two studies did not report any estimates of variance. Overall, 23 trials (43.489 participants) was contribute to the meta-analysis. The physician-centered intervention were categorized as computer decision support (6 trials), stepped treatment algorithm (6), Medical Education (4), Audit and feedback (3) and Multifaceted (4). Methodological quality of included studies was rather low. Only interventions that the main focus were stepped treatment algorithm showed significant reductions in blood pressure: weighted mean difference, systolic - 4.2 mmHg; 95% confidence interval -5.3 to -3.2; I^2, 80.1% and diastolic -1.6 mmHg; 95% confidence interval -2.8 to -0.49; I^2. 93.4%. For the remaining five categories did not show to reducing blood pressure. Subgroup analyses by study design explained considerable heterogeneity in stepped treatment algorithm effect. **CONCLUSIONS:**Physician-centered interventions based in stepped treatment algorithm showed significantly reductions of systolic and diastolic blood pressure. The magnitude of reduction in blood pressure is likely to prevent stroke and death in patients.

PCV5: ANTIPSYCHOTIC EXPOSURE AND RISK OF STROKE: A SYSTEMATIC REVIEW AND META-ANALYSIS OF OBSERVATIONAL STUDIES

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BACKGROUND: Use of antipsychotic medications has been associated with increased risk of cerebrovascular events; however, this association remains questionable given conflicting evidence in the literature.**OBJECTIVES:** We conducted a systematic review and meta-analysis to determine the risk of stroke with the use of antipsychotic medications. **METHODS:** All articles published between 1970 and February 2015 were identified by comprehensively searching PubMed, MEDLINE and EMBASE without language restrictions. Observational studies comparing stroke outcomes in antipsychotic patients with non-users were selected. Two authors independently extracted study characteristics and indicators of study quality. Newcastle-Ottawa Scale was adopted to assess risk of bias. Pooled odd ratios (ORs) and heterogeneity (I2) were estimated on the basis of random effects models. **RESULTS:** We identified 22 potentially relevant studies from 1,171 citations. Of these, 9 studies (3 cohort, 5 case–control and 1 case-case-time-control) with a total of 155,789 subjects and 10,203 cases of stroke were eligible for final analysis. Use of antipsychotics was associated with a significantly higher risk of developing stroke [OR 1.57, 95% confidence interval (CI) 1.29-1.98, I2 = 92.4%]. The pooled OR for stroke was 1.58 [95% CI 1.01-2.49, I2 = 68.4%] with exposure to conventional antipsychotics and 1.06 [95% CI 0.59-1.89, I2 = 56.2%] with exposure to atypical antipsychotics. Subgroup analysis of conventional antipsychotics showed elderly patients over 64 years old were at lower risk for stroke [OR 1.37, 95% CI 0.87-2.17, I2 = 64.5%]. Due to limited data on individual agents, only Risperidone was evaluated in the subgroup analysis of atypical antipsychotics. Risperidone users were less likely to develop stroke than non-users of antipsychotics [OR 0.63, 95% CI 0.33-1.17, I2 = 55.2%]. **CONCLUSIONS:** Exposure to conventional antipsychotic was associated with a significant increase in stroke risk. Nonetheless, use of atypical antipsychotics revealed lower risk of stroke. Given heterogeneity among eligible studies, additional research is needed.

PCV6: BURDEN OF HEART FAILURE IN LATIN AMERICA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: Heart failure (HF) is a common clinical syndrome representing the end-stage of several cardiac diseases. Our objective was to estimate the burden of heart failure in Latin America. **METHODS:** A systematic review and meta-analysis was performed. We

searched in MEDLINE, EMBASE, LILACS, and CENTRAL from January 1994 to June 2014. We included non-comparative data from experimental and observational studies. No language restriction was imposed. We included studies with samples of at least 50 participants of 18 years of age or older with HF. The outcomes analyzed were incidence, prevalence, hospitalization rates and case fatality ratios of HF at different time points, length of stay and mortality. **RESULTS:** The search retrieved 4792 references of which 143 studies were finally included. Most were conducted in South America (92%), particularly in Brazil (64%). The mean age was 60 ± 9 years and the mean ejection fraction was 36 ± 9%. Most studies evaluated more than one etiology (79%) but the etiology more studies exclusively was Chagas disease (13%). The incidence of HF ranged from 199 to 557 cases per 100,000 person-years and the pooled prevalence was 1%, being higher in older populations. Hospitalization rates in patients with HF ranged from 28 to 31% at different time points, and the median length of stay was 7.0 days. In-hospital mortality was 11.7%, being higher in patients with worse ejection fraction, with ischemic and with Chagas disease. Mortality at one year was 24.52% (95%CI 19.42 to 30.02). **CONCLUSIONS:** This SR of HF in Latin America, could help decision-makers to design better preventive strategies, and guide effective patient-centered care.

CARDIOVASCULAR DISORDERS - Cost Studies

PCV7: BUDGET IMPACT ANALYSIS OF THE USE OF ALTEPLASE IN THE TREATMENT OF ACUTE ISCHAEMIC STROKE IN MEXICO

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OBJECTIVES: To estimate the economic impact of the use of alteplase versus best supportive care (BSC) in patients with acute ischemic stroke in Mexico. **METHODS:** A decision tree cost-effectiveness (CE) model assessed the treatment related cost for Alteplase and BSC related to two mayor disease branches: with or without intracranial hemorrhage. Terminal nodes in each arm included death, independent- or dependent survival. Published results of head to head clinical trials efficacy inputs populated the model. Treatment algorithm was obtained from the local governmental guide. Public institutional direct medical costs (2014 purchases and price tabulators) where retrieved to adopt the national health system perspective. Governmental databases and 2014 purchases provided the epidemiology inputs. A five year forecast estimated the budget impact of the use of alteplase versus BSC. **RESULTS:** 7,976 patients yearly were calculated to require medical attention due to an acute ischaemic stroke in Mexico. Mean saving per patient in the alteplase versus BSC arm was estimated to be US$67,142.76 at the CE model. 16% versus 12% positive response to treatment was seen at alteplase and BSC arms respectively. Starting at a 4% Market share level, and assuming an increasing share at a 1% rate per year, potential savings for new cases at year five (8% share) were estimated to be as high as US$35,342,527.00. **CONCLUSIONS:** At a better response rate with lower costs of treatment, alteplase was estimated to be a cost-saving therapy versus BSC in a CE model. In a five year budget impact analysis, this novel alternative showed to bring potential savings in the public Mexican institutional context versus BSC. The savings proportionally increase with a higher levels of patients treated and market share.

PCV8: BUDGET IMPACT ANALYSIS OF THE USE OF TENECTEPLASE IN THE TREATMENT OF ACUTE MYOCARDIAL INFARCTION IN MEXICO

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OBJECTIVES: To estimate the economic impact of the use of tenecteplase versus streptokinase in patients with acute myocardial infarction (AMI). **METHODS:** A decision tree cost-effectiveness (CE) model assessed the treatment related cost for tenecteplase and streptokinase related to two mayor disease branches: with or without acute reperfusion therapy. In the reperfusion arm, terminal nodes included none or one or more complications; those without therapy could only survive or die. Complications comprised death, reinfarction, cardiac failure, cerebral infarction, minor and mayor bleedings and intracranial hemorrhage. Published results of head to head clinical trials or indirect comparisons efficacy inputs populated the model. Treatment algorithm was obtained from the local governmental guide. Public institutional direct medical costs (2014 purchases and price tabulators) where retrieved to adopt the national health system perspective. Governmental databases and 2014 purchases provided the epidemiology inputs. A five year forecast estimated the budget impact of the use of tenecteplase versus streptokinase. **RESULTS:** 20,002 patients yearly were calculated to require medical attention due to an AMI in Mexico. Mean saving per patient in the tenecteplase versus the streptokinase arm was estimated to be US$1,920.00 at the CE model. 98% versus 93% positive response to treatment was seen at tenecteplase and streptokinase arms respectively. Starting at a 3% Market share level, and assuming an increasing share at a 3% rate per year, potential savings for new cases at year five (15% share) were estimated to be as high as US$16,371,461.00. **CONCLUSIONS:** At a better response rate with lower costs of treatment, tenecteplase was estimated to be a cost-saving therapy versus streptokinase in a CE model. In a five year budget impact analysis, this novel alternative showed to bring potential savings in the public Mexican institutional context versus streptokinase. The savings proportionally increase with a higher market share.

PCV9: IMPACTO ORÇAMENTÁRIO DO EVEROLIMO, SIROLIMO E TACROLIMO PARA IMUNOSSUPRESSÃO EM TRANSPLANTADOS CARDÍACOS NO SISTEMA PÚBLICO DE SAÚDE DO BRASIL

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OBJETIVOS: Analisar o impacto orçamentário da do everolimo, sirolimo e tacrolimo para transplantados cardíacos no Sistema Público de Saúde do Brasil (SUS). **MÉTODOS:** Para estimar a população que realizou transplante cardíaco no Brasil passível de utilizar esses medicamentos, desenhou-se coorte hipotética a partir do número de transplantes de coração no Brasil entre 1999 e 2013, obtido por meio do Sistema de Informações do SUS, e da taxa anual de sobrevida ao longo de 15 anos, extraída de estudo de coorte multicêntrico internacional. Considerando que os medicamentos em análise estão disponíveis no SUS para transplantados renais e que essa condição possui um esquema terapêutico imunossupressor semelhante, utilizou-se a mesma frequência de uso desses medicamentos, em 2013. Considerou-se o preço de aquisição do Ministério da Saúde, por se tratar de uma análise sob a perspectiva dessa instituição. A taxa de câmbio considerada foi US$ 1 = R$ 3,27. **RESULTADOS:** No período analisado, 2.203 indivíduos realizaram transplante de coração, dos quais 1.374 (62%) indivíduos estariam vivos. Dessa população, 4,65% utilizariam everolimo, 7,34% sirolimo e 30,7% tacrolimo. O gasto anual por paciente varia conforme o medicamento e dose administrada: US$ 2.237,06 a US$ 4.474,13 para everolimo; US$ 1.966,24 a US$ 4.915,60 para sirolimo; e US$ 1.193,39 a US$ 2.131,38 para tacrolimo. O impacto orçamentário anual para imunossupressão nesta população seria de US$ 844.715,35 a US$ 1.680.783,65, a depender da dose. Aproximadamente 57% do impacto deve-se ao gasto com tacrolimo. Caso toda a população que utilizasse everolimo migrasse para sirolimo, o impacto seria de US$ 827.413,27 a US$ 1.708.987,45; no caso inverso, o impacto sofreria uma variação de US$ 872.021,56 a US$ 1.636.272,31 **CONCLUSÕES:** O estudo demonstra que a possível incorporação desses medicamentos não implicaria em significativo aporte orçamentário ao SUS, mas que deve ser ponderado frente às evidências que respaldem suas utilizações nessa população.

PCV10: EVALUATION OF THE ANNUAL COST OF FIXED-DOSE COMBINATION DRUGS USED IN TREATMENT OF HYPERTENSION IN INDIA: AN ECONOMIC PERSPECTIVE

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OBJECTIVES: To compute the cost of FDC drugs used in the treatment of hypertension and study the variation in the costs. **METHODS:** Standard treatment guidelines (STG), 4th edition and Joint National committee (JNC), 8th guidelines were perused to understand the management of hypertension. Current Index of Medical Specialities (CIMS) Oct-Jan 2015 issue and Indian Drug Review (IDR) Issue 1, Jan 2015 were used to capture the prices of drugs available in the Indian market. Annual cost of treatment and its variation was studied. **RESULTS:** First line FDC according to STG & JNC8 is calcium channel blockers/diuretics with beta-blockers or ACEI. If we initiated the treatment with amlodipine + atenolol (5mg + 50mg) OD, then the annual cost of treatment was found to be Rs.365-2909. A maximum variation of 697% was noted in the least-highest cost of treatment. A minimum of 144% variation was observed for amlodipine + lisinopril (5mg + 5mg) OD, in its least-highest cost of treatment. Likewise, if the treatment is initiated with other combination therapy, say ramipril + hydrochlorothiazide (2mg +12.5mg) OD, then annual cost of treatment was found to be Rs.365-2792. This showed a maximum variation of 665% in its least-highest cost of treatment. On the other hand hydrocholrothiazide + metoprolol (12.5 + 100mg) combination showed a minimum price variation of 9% only. **CONCLUSIONS:** It was concluded that a maximum of 8 fold variation was observed in the least-highest costs of treatment with amlodipine + atenolol (5mg + 50mg) in the year 2015. The average percentage price variation of different brands of the same oral antihypertensive drug manufactured in India is very wide.

PCV11: COSTO DE HIPERTENSION ARTERIAL EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos de Hipertensión Arterial (HTA) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con HTA afiliada al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de HTA es de 359,672 personas para el año 2014 (Incidencia de HTA: 27%). El costo total para HTA es de 158,751,728 dólares. El costo total correspondiente a diagnóstico es 5,098,754 dólares (3.2%), tratamiento 136,381,652 dólares (85.9%) y para seguimiento 17,271,321 dólares (10.9%). El costo fijo correspondió a 55,294,137 dólares (34.8%) y el costo variable a 103,457,589 dólares (65.2%). **CONCLUSIONES:** El costo anual total para Hipertensión Arterial en el Perú se estimó en 158,751,728 dólares. Este monto representa el 114.1% del presupuesto ejecutado el año 2014 en el Programa Presupuestal 018 Enfermedades no Transmisibles.

PCV12: RESOURCE USE AND COSTS OF CONGESTIVE HEART FAILURE HOSPITALIZATIONS: A RETROSPECTIVE COHORT STUDY IN ARGENTINA

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OBJECTIVES: Describe the use of healthcare resources and costs of hospitalizations for congestive heart failure in three institutions of Argentina, in the entire population subgroups such as ejection fraction, blood pressure and renal function at admission. **METHODS:** Retrospective cohort study with descriptive and regression analysis. Means and medians were compared between subgroups using one-way ANOVA and Kruskal Wallis. The mortality rate was compared with chi square test. Generalized linear regression models were used to examine associations between the total cost of hospitalization and various sociodemographic and clinical variables. **RESULTS:** 301 patients were included; age 75.3 ± 11.8 years; 37% female; 57% with depressed ejection fraction; 46% of coronary artery disease. The blood pressure on admission was 129.8 ± 29.7 mmHg; renal function 26.2 ± 57.9 ml / min / 1.73 m2. In-hospital mortality was 7%. The length of stay was 7.82 ± 7.06 days (median 5.69), more prolonged in patients with renal impairment (8.59 vs. 8.18; p = 0.0329) and shorter in those with elevated blood pressure on admission (6.08 ± 4.03; p = 0.009). The average cost per patient was AR $ 68,861 ± 96,066 (US $ 8,071 ± 11,259; US $ 1 = AR $ 8.7928); 71% attributable to hospital stay, 20% for therapeutic procedures (mainly aortic valve surgery, implanted defibrillator and coronary angioplasty) and 6.7% for diagnostic studies (mainly radiology, laboratory and echocardiogram). In multivariate analysis, depressed ejection fraction, valve antecedent and impaired renal function at admission were associated with higher costs. **CONCLUSIONS:** Resource use and costs associated hospitalizations for heart failure are high, and the highest proportion is attributable to the costs of hospital stay.

PCV13: COSTO – EFECTIVIDAD DE APIXABAN CON OTROS NOACS (DABIGATRAN Y RIVAROXABAN) EN EL TRATAMIENTO DE LA FIBRILACION AURICULAR NO VALVULAR (FANV) EN PACIENTES DE LA SEGURIDAD SOCIAL DE PERÚ

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OBJECTIVOS: Análisis de costo-efectividad de apixaban versus otros NOACs (dabigatrán y rivaroxaban) en pacientes con fibrilación auricular (FA) desde la perspectiva de la Seguridad Social peruana (EsSalud).**METODOLOGÍAS:** Se adaptó un modelo de Markov con datos de eficacia y seguridad provenientes de los estudios clínicos pivotes de los NOACs – Aristoteles para apixaban. Para la estimación de frecuencia y costo de eventos se tomo como base los registros hospitalarios y tarifas oficiales de EsSalud también validándolos con expertos locales. Los costos de los medicamentos se obtuvieron del SEACE. Todos los costos se presentan a 2014 nuevos soles. La tasa de descuento utilizada fue de 3,5% para los costos y los resultados. Una cohorte de 2.000 pacientes fue modelada para un horizonte temporal de toda la vida. Se realizó un análisis de sensibilidad probabilística y un análisis de sensibilidad univariante. **RESULTADOS:** Se estimaron el total de accidente cerebrovascular isquémico (no fatales moderado suave, no mortales, no mortales severa, fatal) apixaban: 147 vs dabigatrán-110mg: 154, dabigatrán-150mg: 146, rivaroxaban: 145. También se estimó el accidente cerebrovascular hemorrágico total (no fatales moderado suave, no mortales, no mortales severa, fatal) y otras grandes hemorragias (sangrado GI no fatales, ICH no fatal o no GI relacionados con hemorragias importantes, fatales). Los años de vida ajustados por calidad (AVAC), con apixaban se estimó 6,50 y un costo de S /. 27.473. Los otros NOACs tuvieron mayores costos y AVACs similares. Apixaban alcanzó costos incrementales negativos respecto de los otros NOACs, lo cual la hizo una opción dominante. En los resultados del análisis de sensibilidad univariable con diferentes entradas del modelo y en análisis de Monte Carlo, apixaban fue rentable en el 97% de las simulaciones utilizando el umbral de 1 PIB per cápita. **CONCLUSIONES:**Apixaban es la alternativa más rentable en comparación con dabigatrán y rivaroxaban.

PCV14: COST-EFFECTIVENESS OF APIXABAN VERSUS OTHER NEW ORAL ANTICOAGULANTS AND WARFARIN FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN VENEZUELA

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BACKGROUND: Apixaban (5 mg BID), dabigatran (150mg), and rivaroxaban (20 mg once daily) are 3 novel oral anticoagulants (NOACs) currently approved for stroke prevention in patients with atrial fibrillation (AF). Although warfarin remains the standard of care in Venezuela. **OBJECTIVES:** The objective of this study was to evaluate the cost-effectiveness of apixaban against other NOACs and warfarin from the perspective of the public health care sector in Venezuela **METHODS:** A Markov model was developed to evaluate the pharmacoeconomic impact of apixaban versus other NOACs over a lifetime. Direct comparisons from the Aristotle trial versus warfarin and pair-wise indirect treatment comparisons against other NOACs were used to assess relative effect size for following end points: ischemic stroke, hemorrhagic stroke, intracranial hemorrhage, other major bleeds, clinically relevant non major bleeds, myocardial infarction, and treatment discontinuations. Main outcomes are given in terms of costs per quality-adjusted life years gained. Resource use and costs were estimated from published data. Discount rate of 3.5% was used to discount both cost and QALYs. **RESULTS:** Apixaban was projected to increase Qol versus other NOACs, and warfarin, QALY gained with apixaban when compared with dabigatran was .133, with rivaroxaban .132 and warfarin .32. Being the option with lower cost of all the comparators apixaban resulted in a dominant alternative. Sensitive analysis indicated that warfarin option costs were very sensitive to INR monitoring frequency and cost but in general results were robust over a wide range of inputs. **CONCLUSIONS:** Although our analysis vs NOACs was limited by the absence of head-to-head trials, based on the indirect comparison data available, our model projects that apixaban may be a cost-effective alternative to dabigatran , rivaroxaban and warfarin for stroke prevention in AF patients from the perspective of the public health care in Venezuela

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PCV15: COSTO-EFECTIVIDAD DE LOS NUEVOS ANTICOAGULANTES ORALES EN PACIENTES CON FIBRILACION AURICULAR NO VALVULAR EN COLOMBIA

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OBJECTIVOS: Realizar un análisis de costo-efectividad que compare las estrategias de anticoagulación disponibles para el tratamiento de la fibrilación auricular no valvular (FANV) en Colombia. **METODOLOGÍAS:** Se diseñó un modelo de Markov, con ciclos de un mes, en el programa TreeAge Pro versión 2014, que comparara cuatro opciones de tratamiento: warfarina (manejo actual, incluido en el plan obligatorio de servicios de salud - POS) y los nuevos anticoagulantes orales apixabán, dabigatrán 150 mg y rivaroxabán. La perspectiva empleada fue la del tercero pagador (sistema de salud colombiano), considerando solo costos médicos directos, en pesos colombianos de 2014 (1 USD=COP$2001). Se siguieron las guías metodológicas propuestas por ISPOR. El horizonte temporal fue de 5 años, y la tasa de descuento 3%. Los costos de la enfermedad y sus complicaciones se estimaron a partir de casos base, estimación de recursos, manuales tarifarios oficiales y precios de regulación de medicamentos. **RESULTADOS:** Los costos anuales de los medicamentos fueron warfarina $125.925 (USD 63), apixaban $2.250.464 (USD 1.125), dabigatran $2.048.941 (USD 1.024), rivaroxaban $1.742.201 (USD 871), y las utilidades en AVAC en el horizonte de 5 años warfarina 3,5144; apixaban 3,5791; dabigatran 3,5895; y 3,5973. Así, la RCEI, con respecto a la warfarina, fue $130.955.122 (USD 65.445) para apixabán, $84.694.440 (USD 42.326) para dabigatrán y $77.472.450 (USD 38.717) para rivaroxaban.**CONCLUSIONES:** La estrategia más costo-efectiva es el rivaroxabán, seguido del dabigatrán y posteriormente el apixabán, siendo el rivaroxabán la única molécula que se encuentra en el umbral de costo-efectividad establecido para Colombia.

PCV16: ANÁLISIS DE COSTO-EFECTIVIDAD DE LA WARFARINA VS. DABIGATRÁN ETEXILATO EN FIBRILACIÓN AURICULAR EN ECUADOR

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OBJECTIVOS: Evaluar la costo-efectividad de Dabigatrán en comparación con la Warfarina en pacientes con fibrilación auricular. **METODOLOGÍAS:** Se desarrolló el modelo de Markov. Las probabilidades de transición de eventos clínicos se derivaron del estudio RE-LY, los costos se dividen en costos directos: Hospitalización, Inter-consulta / Consulta, Exámenes Complementarios, Servicios de Apoyo, otras medicamentos y/o tratamientos, transfusión y fármacos anticoagulantes, obtenidos en dólares desde el cálculo de las UVR de la Lista de precios de la Sistema Nacional de Salud; seleccionando uno o más grupos de codificadores CPT requeridos para representar el beneficio, y de varias fuentes privadas. Costos indirectos: gastos de transporte y de oportunidad (salario no devengado) para el cuidador. El análisis fue diseñado para un período de 20 años que simula la esperanza de vida nacional para el promedio de edad en que se inicia la FA. Una tasa de descuento anual de 3% se utilizó para ambos costos y beneficios. Costos de los medicamentos para el sector público no están regulados teniendo en cuenta las reglas de los valores de la lista de precios certificados de origen se puede obtener valores compatibles con referencia a los del sector privado. **RESULTADOS:** Se evidencio un incremento en Lys 0.35 años y 0.39 QALYS con la dosis de Dabigatrán 150mg vs. Warfarina con un ICER/Lys de22,470.20 y 19,922.60 por QALYS; con la dosis de Dabigatrán 110mg vs. Warfarina se obtuvo un incremento en Lys 0.23 años y 0,30 QALYS con un ICER/Lys de $ 37,930.04 y 29,173.02 por QALYS. **CONCLUSIONES:** Dabigatrán etexilato es una alternativa altamente costo-efectiva en Ecuador frente a la Warfarina para prevenir los accidentes cerebrovasculares y la embolia sistémica en pacientes con Fibrilación Auricular.

PCV17: COST-EFFECTIVENESS OF APIXABAN VERSUS OTHER NOACS AND WARFARIN, DURING HOSPITALIZATION IN THE PRIVATE BRAZILIAN HEALTH SYSTEM

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INTRODUCTION:Atrial fibrillation (AF) is the most common arrhythmia in the world and it affects around 1% of the world´s population. There are approximately 1.5 million people, in Brazil, that have AF. AF is the fifth cause of hospitalization in the Public Health System. AF patients have an increased risk of developing an ischemic stroke than patients without AF. Current treatment for AF are vitamin K antagonist (AVKs), antiplatelet agents, acetylsalicylic acid (AAS) and the Oral Anticoagulants – NOACs (rivaroxaban, dabigatran and apixaban). **OBJECTIVES:** Evaluate the cost-effectiveness of apixaban versus other NOACs and warfarin, during hospitalization in the private Brazilian health system. **METHODS:** A cost-effectiveness analysis was performed from the hospital perspective in the private health care system in Brazil. Medications are reimbursed during hospitalization. Inclusion for study analysis were patients with an atrial fibrillation diagnosis, mean age 70-years-old, high risk of stroke and no anticoagulation contraindication. Medications used in this analysis were: apixaban 5mg, dabigratan 150mg, rivaroxaban 20mg and warfarin. Clinical outcomes were life years gained, life years gained adjusted per quality of life, and direct medical costs to the treatment. A Markov model was used to perform the cost-effectiveness analysis. The costs were based on CMED´s price list from 2014 and on specialist panel. **RESULTS:** Total treatment costs are R$ 29.937,31 for apixaban, R$ 32.465,45 for dabigatran, R$ 38.955,79 for rivaroxaban, R$ 42.710,51 for warfarin. Incremental costs were -R$ 2.528,14 for dabigatran, -R$ 9.018,48 for rivaroxaban, -R$ 12.773,20 for warfarin. Incremental effectiveness and incremental QALY were favorable for apixaban compared to the other medications. **CONCLUSIONS:** In the scenario where there is reimbursement of medication during hospitalization for the treatment of an AF event, apixaban as anticoagulant therapy for stroke prevention in nonvalvular AF patients, was shown to be cost-saving compared to 3 noted comparators.

PCV18: COST-EFFECTIVENESS OF PALIVIZUMAB IN CHILDREN WITH CONGENITAL HEART DISEASE IN MEXICO

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OBJECTIVES: Respiratory syncytial virus (RSV) remains one of the major reasons of re-hospitalization among children with congenital heart disease (CHD). This study estimated the cost-effectiveness of palivizumab prophylaxis versus placebo, in Mexico, from the societal perspective. **METHODS:** A decision-analytic model combining a decision tree structure in the first year and a Markov structure in later years was constructed to evaluate the benefits and costs associated with palivizumab prophylaxis among children with CHD. In the first year of the model, children were at risk of mild (i.e. medically attended) and severe (hospitalized) disease due to RSV infection. The risk of delayed and complicated heart surgery due to severe disease due to infection was also accounted for. In later years, patients were at risk of developing asthma and allergic sensitization as sequelae of RSV infection. Input data for the model were derived from the pivotal clinical trial and systematic literature reviews. Indirect costs included parental absence from work, travel costs, and RSV nosocomial infections. In the base case analyses, costs and effects were discounted at 5%. Results discounted at 0% and 3% are presented as scenario analyses. **RESULTS:** Over a lifetime horizon palivizumab prophylaxis yielded additional quality-adjusted life years (QALYs) at additional costs. In the base case analysis, incremental costs and QALYs were estimated to be $2,864 and 0.09, respectively, resulting in an ICER of $33,762/QALY gained. The corresponding figures in the analysis with 0% discount rates were $2,641, 0.22, and $11,834/QALY gained, respectively, whereas in the analysis with 3% discount rates these were $2,786, 0.11, and $24,765/QALY gained, respectively. **CONCLUSIONS:** The model demonstrated that palivizumab prophylaxis is a cost-effective preventive strategy for children with CHD in Mexico. High discount rates penalize preventive treatments for which health gains occur only in the future. Thus the use of lower discount rates may be more appropriate.

PCV19: ANÁLISIS DE COSTO EFECTIVIDAD Y COSTO UTILIDAD DE LA ADICIÓN DE RIVAROXABÁN EN EL TRATAMIENTO DE PACIENTES CON SÍNDROME CORONARIO AGUDO EN COLOMBIA

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OBJECTIVOS: analizar la relación de costo-efectividad y costo-utilidad del uso de rivaroxabán como adición al tratamiento estándar (clopidogrel+ASA) frente a clopidogrel+ASA, en pacientes con síndrome coronario agudo en Colombia, desde la perspectiva del tercero pagador. **METODOLOGÍAS:** mediante un modelo de Markov que simula la historia natural de pacientes con síndrome coronario agudo (edad promedio 62 años) en ciclos mensuales y hasta la muerte, se comparó la adición de rivaroxabán durante los primeros dos años de tratamiento con el tratamiento estándar. Los parámetros de eficacia y seguridad fueron estimados desde el estudio ATLAS, el cual los compara cabeza a cabeza. Los datos de calidad de vida fueron tomados del estudio de Greenhalgh. Los costos de servicios fueron estimados a partir de la información de bases de datos de aseguradores y los precios unitarios del Sistema de información de precios de medicamentos. Como resultado se analizaron los costos por años de vida y por años de vida ajustados por calidad, aplicando una tasa de descuento del 5% anual para costos y resultados. Se realizó un análisis de sensibilidad tipo Montecarlo. **RESULTADOS:** la adición de rivaroxabán mostró mayor efectividad tanto en años de vida como en años ajustados por calidad de un paciente promedio (10,47 y 8,73 versus 10,38 y 8,65). El costo total medio (en pesos colombianos 2014) de un paciente tratado con rivaroxabán fue de $45.423.953, frente a $44.655.224 por tratarlos sin la adición. Al comparar los resultados con el umbral de costo-efectividad para Colombia ($49.335.300) el análisis de sensibilidad mostró a rivaroxabán costo-efectivo en el 96,5% de los eventos, de los cuales en el 31,4% sería dominante. **CONCLUSIONES:** rivaroxabán es una tecnología costo-efectiva y costo-útil, con razones de efectividad incremental de $8.235.596 y $9.584.454, respectivamente, las cuales se encuentran por debajo del umbral de costo-efectividad de tres PIB per cápita para Colombia.

PCV20: EVALUACIÓN DE COSTO DE EFECTIVIDAD Y COSTO UTILIDAD DEL USO DE RIVAROXABÁN EN PACIENTES SOMETIDOS QUIRÚRGICAMENTE POR REEMPLAZO DE CADERA Y RODILLA, FRENTE A ENOXAPARINA EN EL CONTEXTO ECUATORIANO

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OBJECTIVOS: estimar la costo-efectividad y costo-utilidad incremental del uso de rivaroxabán frente a enoxaparina en pacientes intervenidos quirúrgicamente por reemplazo de cadera o rodilla. **METODOLOGÍAS:** se diseñó un modelo de Markov en el que se modeló la historia natural de pacientes sometidos a reemplazo total de cadera o de rodilla, con horizonte temporal de cinco años, ciclos semanales, perspectiva del tercer pagador y una tasa de descuento para desenlaces y costos del 5%. Los desenlaces evaluados fueron años de vida ajustados por calidad y costos totales. El modelo fue desarrollado en tres módulos: profilaxis, posprofilaxis y complicaciones a largo plazo. Los primeros dos módulos constituyen la fase aguda, mientras que las complicaciones son las de largo plazo. Los costos son expresados en dólares y fueron estimados desde la información de la secretaría técnica de fijación y revisión de precios de medicamentos y manuales tarifarios del país. **RESULTADOS:** el uso de rivaroxabán representa en años de vida ajustados por calidad una media de 3,507 años y un costo de $70,05 frente a enoxaparina de 3,505 años y $98,94. Por su parte, el uso de rivaroxabán en estos pacientes representa, en años de vida ajustados por calidad, una media de 3,619 años y un costo de $98,20 frente a enoxaparina de 3,617 años y $117,03, constituyéndose, para ambas indicaciones, una relación de dominancia de rivaroxabán frente a enoxaparina. Bajo análisis de sensibilidad, para las indicaciones de rodilla y cadera, el 98 y 100% de las iteraciones se encuentran en dominancia, respectivamente. **CONCLUSIONES:** rivaroxabán se identifica como una tecnología dominante para pacientes con reemplazo total de rodilla o cadera, debido a su mayor eficacia y seguridad, y su menor costo, frente a enoxaparina. De esta forma, el uso de esta tecnología de intervención representa un ahorro para el sistema de salud.

PCV21: EVALUACIÓN ECONÓMICA DEL USO DE RIVAROXABÁN COMO PROFILAXIS EN CIRUGÍA DE REEMPLAZO TOTAL DE CADERA Y/O DE RODILLA FRENTE A ENOXAPARINA, EN COLOMBIA

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OBJECTIVOS: estimar la costo-efectividad y costo-utilidad del uso de rivaroxabán frente a enoxaparina en pacientes intervenidos quirúrgicamente por reemplazo de cadera o rodilla para el contexto colombiano.**METODOLOGÍAS:** mediante un modelo de Markov, que simula la historia natural de pacientes sometidos a reemplazo total de cadera o de rodilla, en un horizonte temporal hasta el final de la vida, desde la perspectiva del tercer pagador, se comparó el uso de rivaroxabán frente a enoxaparina posterior en la prevención de eventos trombóticos. Los parámetros clínicos fueron tomados de los estudios cabeza a cabeza que los compara y los costos fueron estimados, en pesos colombianos del 2014, a partir de los datos de transacciones del sistema. Las medidas de utilidad fueron estimadas de datos internacionales. Fue analizada la razón de costo-efectividad y costo-utilidad aplicando una tasa de descuento del 5% anual. **RESULTADOS:** no se hallaron diferencias en efectividad. El costo total para el brazo de rivaroxabán en un paciente promedio es menor que el tratado con enoxaparina ($170.987,74 frente a $284.805,96). Desde el punto de vista de costo-utilidad se muestra dominancia por menores costos y mayor cantidad de años de vida ajustados por calidad en ambas indicaciones. En cirugía de cadera fue de 3,6191 años con un costo de $248.598,40 frente a 3,6176 años y $386.849,66 a favor de rivaroxabán. En el análisis de sensibilidad se mantienen los resultados de costo-efectividad. **CONCLUSIONES:** para Colombia, y en las condiciones del 2014, se mantiene la dominancia reportada en otros estudios del uso de rivaroxabán en pacientes con reemplazo total de rodilla o cadera, representando ahorros para el sistema de salud.

CARDIOVASCULAR DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PCV22: ASSOCIATION AMONG CALENDAR PACKAGING AND MEDICATION ADHERENCE: FINDINGS FROM A FOCUS GROUP DISCUSSION AMONG HYPERTENSIVE PATIENTS IN PENANG, MALAYSIA

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OBJECTIVES: Medication adherence to treatment recommendations has major impact on health outcomes. Numerous interventions to improve medication adherence among the patients have been studied in clinical trials, including calendar packaging and patient reminder letters. Therefore, this study is aimed to explore hypertensive patient's perceptions towards calendar packaging and its impact on medication adherence.**METHODS:** A qualitative method was adopted, whereby two focus group sessions were conducted among 16 conveniently sampled hypertensive patients from a community based non-governmental organisation in the state of Penang, Malaysia. A pre validated focus group guide was constructed and used for data collection. Collected data was transcribed verbatim and analysed by thematic content analysis to identify the emerging themes. **RESULTS:** Each focus group consisted of 8 hypertensive patients. Thematic content analysis resulted into 3 major themes (knowledge and familiarity with the medicines names and their packaging; perception about the packaging and labelling of medicines; knowledge and views of calendar packaging) and each theme was further divided into 2 sub themes. Majority of the hypertensive patients were not familiar with their medication names, however they were able to identify their medications based on the appearance and packaging. Participants agreed that calendar packaging is a great intervention to increase awareness among patients about regular medicine use and increase medication adherence. **CONCLUSIONS:** The study concluded that hypertensive patients relied on the packaging and labelling on the medications to identify their medications. Thus, packaging and labelling of the medications play an important role in improving medication adherence and reduce medication errors. This finding can help to enhance the drug manufacturers to pay attention on the drug packaging in order to increase medication adherence among the patients.

CARDIOVASCULAR DISORDERS - Health Care Use & Policy Studies

PCV23: INDICADORES DE NEFROPORTECCIÓN: HERRAMIENTA PARA EVALUAR RESULTADOS EN GESTIÓN DE RIESGO PARA PACIENTES CON ENFERMEDAD RENAL CRONICA, HIPERTENSIÓN Y/O DIABETES MELLITUS EN COLOMBIA

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OBJECTIVOS: La Enfermedad Renal Crónica (ERC) es considerada una patología de alto costo cuyos devastadores resultados se pueden contener o eliminar con medidas preventivas, oportuno tratamiento ya adecuado control. Por esto, surge la necesidad de medir el impacto de los programas de nefroprotección en Colombia y a partir del análisis generar información confiable que contribuya al mejoramiento de la calidad de vida y atención de la población. **METODOLOGÍAS:** Se realizó un consenso basado en evidencia y se determinaron 10 indicadores para medir los resultados clínicos de pacientes con ERC estadios 1 – 4 y 5 sin diálisis incluidos en programas de nefroprotección. Se analizó la información de la base de datos nacional correspondiente a 3.055.568 pacientes

hipertensos y/o diabéticos y/o con ERC en el periodo de 1 julio de 2013 al 30 de junio de 2014. **RESULTADOS:** Se identificó que el 56.33% de los pacientes hipertensos se encuentran controlados con cifras tensionales < 140/90 mmHg; 26.93% de los pacientes diabéticos se les realizó HbA1c en los últimos 6 meses y de éstos 13.01% tienen control con valores <7% de HbA1c. Para la población con estadio 1-4 de ERC se encontró 66.53% tienen las cifras tensionales controladas; 3.61% con control de hemoglobina glicocilada, 39.36% con control de niveles de LDL; 25.35% con toma de albuminuria y 12,37% con toma de PTH. **CONCLUSIONES:** Colombia ha realizado importantes esfuerzos para la adecuada gestión del riesgo en pacientes con ERC y sus precursoras; ejemplo de ello son los resultados obtenidos para nefroportección lo cual evidencia que el poder de la información permite realizar acciones que van más allá del buen o mal resultado; ya que promueve a implementar acciones de mejora en pro de la salud de los pacientes; incentiva la competencia basada en resultados y otras estrategias de intervencion gracias a los resultados de una buena gestión.

PCV24: ECONOMIC EVALUATION FOR THE DECISION MAKING PROCESS OF IMPLEMENTING OF PHARMACEUTICAL CARE FOR THE TREATMENT OF HYPERTENSION IN THE BRAZILIAN HEALTH SYSTEM: STAGE I - DIRECT-COSTS ANALYSIS

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OBJECTIVES: Develop an economic tool by linear regression between costs and outcomes which would help health managers to implement the Pharmaceutical Care (PC) to reduce the morbi-mortality of hypertension.**METHODS:** This work is a pharmacoeconomic study nested experimental uncontrolled study designed in before/after, and performed in two basic units of the public health system in the city of Ribeirão Preto-SP, Brazil. During the experimental study were collected seven years of data of 104 hypertensive patients treated, followed during 2009 by PC. These data were organized in before-PC (2006-2008), PC (2009) and post-PC (2010-2012). The economic analysis was be performed in 5 stage: direct-cost analysis; indirect-cost analysis (Markov modeling); obtain the net present value by cash flow; projection of benefits in association with epidemiological indicators and; the cost-effectiveness calculation considering the following outcomes for the epidemiological indicators, using to sensitivity the tornado diagram. The results obtained are related to the first stage, comprising exams, medicines and appointments costs. To analyze was carried ANOVA1 (α=5%), SPSS v.19 software, and for ICER was considered the threshold cost-effectiveness of US$30,721.28 (3x GDP/capita national in 2013). **RESULTS:** The mean systolic and diastolic pressures were respectively: before-PC, 134mmHg (SD=17.1) and 84mmHg (SD=8.8); PC, 118mmHg (SD=7.6) and 75mmHg (SD=5.4); post-PC, 125mmHg (SD=10.8) and 79mmHg (SD=7.8); [p<0.0001]. This represented 54.4%, 98.2% and 93% of patients with blood pressure control during periods before-PC, PC and post-PC, respectively. To direct-cost analysis, the resulting difference was -US$ 130.73 (-US$ 1.25 / patient year) and US$ 1,724.81 (US$ 16.58 / patient year), the periods PC and post-PC, respectively. Reason Cost Benefit obtained was 241.34. In cost-effectiveness analysis, the ICER was US$ 488.81 and US$ 37.71 in the periods before and after PC, respectively. **CONCLUSIONS:** We conclude that this model PC showed evidence for reduced blood pressure of patients followed. Although it was not cost-beneficial, was cost-effective.

PCV25: DESIGN AND EVALUATION OF TRANSDERMAL PATCH OF FELODIPINE

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OBJECTIVES: To design and evaluate the transdermal drug delivery system with low dose of felodipine. And to develop matrix type transdermal patch of felodipine to avoid first pass metabolism and to study the effect of permeation enhancer in formulated patches.**METHODS:** The patches were prepared using HPMC K100M, PVP and ethyl cellulose polymers in different ratios with incorporating 30% PEG-400 as plasticizer by solvent evaporation technique. The prepared patches were evaluated for their physicochemical characteristics and in-vitrodrug release study. Penetration enhancing potential of oleic acid and eucalyptus oil was determined by incorporating in different concentration in optimized patch.**RESULTS:** On the basis of ex-vivo study the formulation F9 (HPMC: PVP; 1:1) with oleic acid & eucalyptus oil (1:1) as penetration enhancer showed maximum release of 91.45% over 24hrs. The formulation F9 followed Higuchi matrix and non-Fickian diffusion transport. Skin irritation studies on two rabbits were found to be free of irritation. Stability studies showed that optimized transdermal patch was stable at 40℃ & 75% RH with respect to the physical parameter and ex-vivodrug release study. **CONCLUSIONS:** It is reasonably concluded that felodipine can be formulated into transdermal patches to avoid first pass metabolism.

PCV26: GASTOS EN SALUD EN LA INTERVENCION DE TRATAMIENTO Y CONTROL DE PACIENTES CON HIPERTENSION ARTERIAL DEL PROGRAMA PRESUPUESTAL DE ENFERMEDADES NO TRANSMISIBLES EN EL PERÚ-2012-2014

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OBJECTIVOS: Estimar los gastos en salud en la intervención de tratamiento y control de pacientes con Hipertensión Arterial del programa presupuestal de enfermedades no transmisibles en el Perú-2012-2014.**METODOLOGÍAS:** Se desarrolló bajo la metodología de usos de Recursos Médicos en referencia al Recurso Humano, materiales médicos, medicamentos y equipamiento. Se tomó en consideración la asignación presupuestal en la intervención de tratamiento y control de pacientes con Hipertensión Arterial del programa presupuestal de enfermedades no transmisibles, en el marco de presupuesto por resultados (PPR). Se contrastó el uso de recursos médicos de tratamiento de Hipertensión Arterial versus el total de egresos de pacientes tratados con dicho diagnóstico, tomados de la base datos de egresos hospitalarios de la Oficina General de Informática del Ministerio de Salud. **RESULTADOS:** El uso de recursos médicos en la intervención Tratamiento de la Hipertensión Arterial se ha incrementado en el período 2013-2014 en recursos humanos de US$ 1,170,788 a US$ 2,085,918; medicamentos de US$ 19,088 a US$ 50,025; y ha disminuido en el mismo período en materiales e insumos médicos de US$ 363,473 a US$ 314,348, equipamiento de US$ 2,549,336 a US$ 45,515. El total de egresos de pacientes con diagnóstico de Hipertensión Arterial en el año 2011 es de 20,262 y en el año 2013 incrementa a

21,753. **CONCLUSIONES:** La asignación de recursos para esta intervención ha incrementado sin embargo los egresos hospitalarios en hipertensión arterial continúan incrementándose

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PCV27: MORTALITY DUE TO CARDIOVASCULAR DISEASE IN COLOMBIA, 1998-2011

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OBJECTIVES: Cardiovascular Disease (CVD) is the main causes of death by non-communicable diseases around the world. Many interventions are available to prevent and control the CVD. The goal of this analysis was to describe the CVD mortality rate and their geographical distribution in Colombia during 1998-2011 **METHODS:** The trend in mortality due to CVD was analyzed using data from official sources. The study was limited to deaths in population under 75 years of age. Annual crude, age-adjusted, and specific death rates were calculated. The trend in the mortality rate was modeled by regression analysis of inflection points. In addition, a geographical analysis was performed to identify differences in triennial municipal rates **RESULTS:** For the 1998-2011 period, occurred 628 360 deaths due to CVD, 47.0% in population under 75 years. Of these, 57.1% occurred in men. The crude mortality rate for the period was 50.6 deaths per 100,000 population under 75, while age adjusted rate was 51.3. The trend in rates between 1998-2000 was ascending and descending between 2000-2011. In general, the trend towards reduction was greater in women, in urban areas and in the age groups of 65 and over. Between 1998-2000 the highest mortality rates were concentrated in most of the municipalities in the Andean region, while between 2009-2011 in those areas the rates reduction was evident **CONCLUSIONS:** Decline was evident in the CVD mortality rate trend in Colombia among population under 75 years. To maintain the reduction should continue guiding and adjusting public policies for CVD prevention and control, which requires the combined efforts of the health sector and other sectors

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PCV28: EVALUACI"N DE LA PRESCRIPCI"N MEDICA DE ANTIHIPERTENSIVOS EN LOS MÉDICOS CARDI"LOGOS DEL HOSPITAL NACIONAL EDGARDO REBAGLIATI MARTINS, LIMA (PERU)

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OBJECTIVOS: Conocer los esquemas antihipertensivos más utilizados, las razones por las cuales se escoge un determinado esquema, la importancia que se da a los costos de los tratamientos antihipertensivos y el conocimiento sobre los precios de estos entre los cardiólogos del Hospital Edgardo Rebagliati. **METODOLOGÍAS:** Se trata de un estudio retrospectivo, transversal, que revisa la utilización de medicamentos. Se revisaron 79 historias clínicas, evaluando los esquemas de tratamiento antihipertensivo utilizados en pacientes hospitalizados en el servicio de Cardiología del HNERM entre enero y marzo del 2011. Se desarrolló también una encuesta a 21 de los 32 cardiólogos (65%) en la que se consignaron datos relacionados a las razones por las cuales se eligió el o los medicamentos y tratamientos antihipertensivos; si consideran datos de costo de los mismos y si estos podrían modelar la prescripción; sus preferencias y razones para determinados antihipertensivos; elecciones frente a antihipertensivos genéricos y comerciales; y finalmente, conocimiento de precios de los medicamentos **RESULTADOS:** En relación a las terapias, el 49% indicó monoterapia, siendo el enalapril 10 mg el antihipertensivo más prescrito con un 31,6%, y el menos prescrito el nifedipino 30 mg de liberación prolongada con 1.3%. Con respecto a la encuesta, el 90.48% estaba a favor de considerar los costos al momento de elegir un antihipertensivo, debido a que “los recursos siempre son limitados y por tanto, los gastos deben ser siempre justificados”. Asimismo, 57% de los cardiólogos dio los precios de 7 medicamentos antihipertensivos conocidos en el mercado nacional, pero no acertó ninguno. En general, el 33% manifestó no conocer los precios solicitados. **CONCLUSIONES:** La monoterapia fue el esquema más utilizado, siendo el enalapril el medicamento preferido. Más del 80% de los encuestados consideran importante los costos al definir su prescripción. No obstante, muchos desconocen los precios de los medicamentos analizados.

INDIVIDUAL'S HEALTH - Clinical Outcomes Studies

PIH1: CAUSAS Y FACTORES ASOCIADOS AL DELIRIUM EN PACIENTES MAYORES DE 65 AÑOS QUE SOLICITAN ATENCIÓN MÉDICA DE URGENCIAS

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OBJECTIVOS: El delirium es una condición clínica de alta frecuencia en adultos mayores y representa mayor gravedad en la solicitud de la atención médica urgente. El propósito del estudio fue identificar la prevalencia, las causas y factores asociados al delirium. **METODOLOGÍAS:** Estudio transversal analítico en pacientes mayores de 65 años, que solicitaron atención de urgencias, entre mayo y agosto de 2013, en el Hospital General de Zona No. 1-A del IMSS en Cd. de México. A los sujetos se les midieron características demográficas y clínicas, el grado de deterioro funcional con Triage Risk Screening Tool (TRST), el deterioro cognitivo con Minimental State Examination (MMSE), las causas de la atención médica y la presencia de delirium con Confusion Assessment Method (CAM). Se identificaron las condiciones clínicas que motivaron el delirium y se identificaron los posibles factores de riesgo para delirium con el cálculo de Razón de Momios (RM), intervalos de confianza al 95% y análisis logístico multivariado. **RESULTADOS:** Se incluyeron 355 pacientes, con edad promedio de 76±8 años, el 60% mujeres. La prevalencia de delirium fue del 18%. Las causas más

frecuentes fueron el desequilibrio hidroelectrolítico (19%) y las infecciones (16%). Los principales factores de riesgo fueron el deterioro funcional grave RM 13.43 (IC95% 1.8 – 99. 1), el deterioro cognitivo severo RM 3.75 (IC95% 1.62 – 8.67), la presencia de comorbilidades RM 2.96 (IC95% 1.54 – 5.68) y la ausencia de pareja conyugal RM 2.36 (IC95% 1.27 – 4.39). El análisis multivariado identifico como factores significativos al deterioro funcional grave, la comorbilidad y la ausencia de pareja conyugal. **CONCLUSIONES:** En la población senil que solicita atención médica de urgencias la prevalencia de delirium es alta, cuya principal causa es el desequilibrio hidroelectrolítico. Los factores de riesgo más importes son deterioro grave de la funcionalidad, la comorbilidad y la ausencia de pareja conyugal.

PIH2: EFFECTIVENESS AND SIDE EFFECTS OF OSELTAMIVIR FOR INFLUENZA TREATMENT: A META-ANALYSIS OF META-ANALYSIS

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OBJECTIVES: To describe the effectiveness and side effects of oseltamivir for treatment of influenza through meta-analysis of published meta-analysis **METHODS:** Meta-analysis of meta-analyses published from 2009 in general and/or at risk population in all age groups was carried out. Studies that assessed the treatment of cases confirmed or diagnosed with Influenza-Like Illness (ILI) with oseltamivir at any doses in comparison with doing nothing, placebo or other medication, was included. Treatment with medicinal plants were excluded. The electronic databases PubMed and Cochrane Collaboration were consulted and reliability of meta-analysis was evaluated with the SURE methodology by independent pairs. The studies qualified as fatal flaws were excluded. For the combination of the outcomes we selected the outcomes comparable in age and risk group with the random effects model. **RESULTS:** The search strategy captured 16 meta-analyses, and three studies were meta-analyzed. The outcomes selected were pneumonia in children and adults. In children, the reduction of pneumonia associate to influenza was 0.78 (0.52 – 1.17); I2 = 57.4%; and Number Needed to Treat (NNT) to avoid a case of pneumonia was 254.4. In adults the reduction of pneumonia associate to influenza was 0.66 (0.34 – 1.29); I2 = 86.5%; and the NNT was 214. **CONCLUSIONS:** This analysis showed effectiveness of oseltamivir in preventing influenza-associated pneumonia, but the combined estimates include the null value in the confidence intervals.

PIH3: CONSUMO DE BENZODIAZEPINAS EN LA POBLACION GERIATRICA ATENDIDA EN EL HOSPITAL CLINICO REGIONAL DE CONCEPCION

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OBJECTIVOS: (1) Determinar el consumo benzodiazepinas en adultos mayores atendidos en el centro de atención ambulatoria del hospital regional de Concepción y (2) Identificar las benzodiazepinas potencialmente inadecuadas para este grupo de pacientes de acuerdo a los criterios de Beers. **METODOLOGÍAS:** Se realizó un estudio retrospectivo del consumo de benzodiazepinas en adultos mayores de 65 años durante los años 2004 al 2013. Se consideraron como benzodiazepinas potencialmente inapropiadas aquellas definidas por los criterios de Beers. Se obtuvo el consumo de estos medicamentos desde las Unidades de Farmacia del Hospital Regional de Concepción. Las benzodiazepinas incluidas fueron clasificadas según el sistema ATC/DDD y se calculó la densidad de consumo expresado en DDD / 1000 habitantes – día (DHD), t-test fue usado para comparar los consumos. Se consideró diferencias significativas con un nivel de significancia de $p<0.05$. **RESULTADOS:** Se observó un incremento significativo ($p=0.017$) en el consumo de todas las benzodiazepinas durante los bienios 2004-2005 a 2012-2013 con una media de 0.03 ± 0.01 DHD y 0.07 ± 0.02 DHD respectivamente. Las benzodiazepinas más consumidas fueron clonazepam con un 36% (5.44 DHD) seguido de alprazolam con 28%(4.17DHD) y diazepam con 21%(3.13DHD). Según los criterios de Beers, clonazepam y diazepam son considerados fármacos no apropiados para este grupo de pacientes, debido a su vida media prolongada. Lorazepam muestra un consumo de 3%(0.41DHD) siendo ésta una de las benzodiazepinas recomendadas en este grupo etario. **CONCLUSIONES:** Existe un incremento sostenido en la prescripción de benzodiazepinas en el periodo estudiado, esto se debe mayoritariamente al uso de benzodiazepinas inapropiadas para este grupo etario. En consecuencia, podría haber mayor riesgo de deterioros cognitivos, delirium, caídas y fracturas que pudieran aumentar el consumo de recursos sanitarios.

PIH4: CONTRACEPTION PATTERNS IN BRAZIL: 2012 NATIONAL SURVEY DATA

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OBJECTIVES: Contraception represents one of the hallmarks on women´s health. However, the most recent data reported related to contraceptive use in Brazil dates back to 2006. Therefore, our study aimed to describe contraceptive use patterns reported by Brazilian women in 2012. **METHODS:** Sample data were extracted from the 2012 Brazil National Health and Wellness Survey (NHWS), an internet based general health survey, which is stratified to be representative of age and gender. Of the 12,000 total respondents, 4,560 were women from 18-49 years old, of which, contraceptive methods related questions were applied. Information about women whose partners had vasectomy were not captured. Descriptive analyses and contraceptive prevalence rate (CPR) were based on the weighted data. **RESULTS:** Overall, 63% of the surveyed women from 18-49 years old were using any contraception method during the past 6 months and included married (39%) and single (33%) women. Young women from 18-34 years (68%) were the most representative age group, Calculated CPR regardless of marital status and CPR only for married women were 63 % and 66%, respectively. Among

contraceptive methods, modern contraception were most used, including condoms (44%), pill for birth control (44%), and injection (9%). Use of vaginal ring, patches and implant represented less than 1% each. Additionally, traditional methods were reported in more than 5% of the women. Pills for non-birth control use were reported by 20%. **CONCLUSIONS:** Patterns reported worldwide previously from 2013 were consistent when compared to updated information of Brazilian contraceptive use from NHWS, with lower prevalence use compared to developed countries. Data was similar when evaluating the use of modern's contraceptive methods and worldwide average of CPR for married women. In conclusion, awareness of contraception importance and related alternatives are needed in the country, which can lead to optimization of educational and awareness programs for women.

PIH5: MORTALITY IN A UNIVERSITY PEDIATRIC HOSPITAL IN COLOMBIA 2000 – 2014

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OBJECTIVES: To estimate change in incidence of inhospital mortality and provide information for planning health care in pediatrics **METHODS:** 1,023 children mortality records in Children's Hospital between years 2000 to 2014 in Cartagena Colombia, were analyzed. Three quinquennial periods were defined to analyze the mortality and estimate the descending mortality rate. **RESULTS:** During this period had 1,023 death and 180,864 hospital discharges. The mean inhospital mortality rate was 8.5 deaths per thousand discharges (Min-Max = 0.3 - 17.3). Out of total 1,023 deaths, 560 (54.7%) were men. Two out of three deaths were in children under one year and less than 1% of deaths occurred in people over 15 years. Between 2000 and 2004 the leading cause of death in both genders was diarrheal disease (25%) followed by pneumonia (17.2%), sepsis (12.3%) and 71.3% of the causes were associated to infections. 7.5% of all the deaths occurred between 2010 and 2014 and their causes were associated to chronic diseases. The hospital mortality rate was reduced in 98.3% in fifteen years. The descending rate was 6.6% per year -7.9% (2000 – 2004) and 17.8% (2010 – 2014) -. **CONCLUSIONS:** the inhospital mortality rate has descended dramatically in Children's Hospital Napoleon Franco Pareja in the last fifteen years and has changed the death causes. This impacted essentially the infant mortality in Cartagena Colombia

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PIH6: DETERMINANTES SOCIOECONÓMICOS DE LA NUTRICIÓN INFANTIL EN COLOMBIA

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OBJECTIVOS: Estimar los determinantes socioeconómicos de la nutrición infantil en Colombia **METODOLOGÍAS:** Estudio transversal a partir del micro-dato de la Encuesta Nacional de Demografía y Salud 2010, agrupados por regiones. Se estimaron cuatro modelos de regresión múltiple, en el que las variables dependientes fueron el z- talla de la Talla para la Edad (TPE) y del Peso para la Edad (PPE) con el fin de establecer los factores socioeconómicos en la nutrición infantil, utilizando el método de Mínimos Cuadrados Ordinarios (MCO). **RESULTADOS:** La región Caribe y Bogotá presentaron mayores problemas de desnutrición infantil. En el quintil de riqueza más bajo el promedio de TPE en la región Caribe fue de -1,18 (RIC -1,91 a -0,42), mientras que en el quintil más alto fue de -0,29 (RIC -1,57 a -0,12). En Bogotá el promedio fue de -2,22 (RIC -2,37 a -2,06) en el primer quintil de riqueza y -0,83 (RIC-1,38 a -0,26) en el quinto quintil. El promedio de PPE fue de -0,51 (RIC -1 a 0,25) en la región Caribe y -0,69 (RIC -0,95 a -0,43) en Bogotá para el quintil más bajo de riqueza, mientras que en el quintil más alto fue de 0,5 (RIC -0.92 a 0,39) en la región Caribe y -0,1 (RIC -0,72 a 0,54) en Bogotá. La riqueza, el índice de masa corporal y la educación de la madre tienen un impacto positivo en la nutrición de los niños. El orden de nacimiento y la edad del niño mostraron tener una incidencia negativa en la nutrición de los niños. **CONCLUSIONES:** Al interior de la región las diferencias en la talla de los niños son significativas según la posición socioeconómica del hogar. Se evidenciaron desigualdades regionales. La prevención de embarazos en adolescentes podría jugar un papel fundamental en la disminución de la de desnutrición.

PIH7: THE ISSUE FOR SEXUALITY AFTER CERVIX CANCER TREATMENT AMONG WOMAN

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OBJECTIVES: To conduct a preliminary study to assess clients sexual life prior to the disease and after treatment and whether it has affected their marital relationship. **METHODS:** 306 women with cancer of the cervix were treated with Radiotherapy and Chemotherapy during this period. 133 were married. 50 out of these between ages 30.and 60 were free from the disease and leading normal lives, were selected randomly and interviewed. A questionnaire was designed to carry out the study. **RESULTS:** 15% had sexual activity once a week, 5% twice a week, 36% once a while and 44% not interested at all after treatment. The spouses of all the women knew about their diagnosis. 20% felt unsecured due to lack of financial, emotional support and threat of divorce from their partners. 80% were afraid to have sex speculating re-currencies of the disease.**CONCLUSIONS:** Based on the preliminary results, cancer of the cervix affects the sexual activities and marital relationships of women. There is also the need for further.

PIH8: CONSENSUS OF CLINICAL PRACTICES AND ASSOCIATED COSTS TO DIAGNOSE AND TREAT GENITAL WARTS CAUSED BY HUMAN PAPILLOMA VIRUS (HPV) IN ECUADOR: RESULTS FROM A PANEL OF EXPERTS

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OBJECTIVES: Decision-makers used economic evaluations to allocate resources, prioritize programs or minimize costs. Panels of experts are one of the methods used by economic evaluators to gather the necessary information to construct models, such as the Delphi technique. Given the limitations of the surveillance of STDs in Ecuador, it is not surprising that no data is available of the disease burden to diagnose and treat diseases caused by HPV. **METHODS:** The main objective of the study is to reach a consensus of the local clinical practices in the diagnosis and treatment of genital warts caused by HPV and the market-based costs of medical specialists' time, resources, and medical supplies from a societal perspective. **RESULTS:** The diagnostic method of preference of medical specialists in Ecuador is the vulvar colposcopy followed by the biopsy with a histopathology study. Medical specialists prefer to use pharmacological treatments to resolve the presence of genital warts using Trichloroacetic acid (TCA). Surgical treatment was not favored by panelists. The cost per patient to diagnose and treat is between $395 and $484 USD per patient. The biggest variation is dependent on the price of medical consultations and the frequency of visits depending of the treatment path offered.**CONCLUSIONS:** The prevention of genital warts caused by HPV has the fundamental purpose to alleviate the morbidity of days lost from disability and the societal economic burden of its treatment. Preventive vaccination can prevent the morbidity burden of genital warts plus the potential of precancers and cancers.

PIH9: COSTO EN SALUD DE LA INTERVENCI"N EN LA ATENCI"N DEL PARTO NORMAL EN EL PERU 2009 Y 2014

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OBJECTIVOS: Estimar el costo en salud en la intervención de la atención del parto normal en el Perú los años 2009 y 2014. **METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en referencia al recurso humano, materiales médicos, medicamentos y equipamiento. Se tomó en consideración la asignación presupuestal de salud materno neonatal, usando el producto de atención parto normal, en el marco de Presupuesto por Resultados (PpR). Se contrastó el uso de recursos médicos y la proporción de partos ocurridos en establecimiento de salud y que fueron atendidos por profesional de la salud (Médico, Obstetra y/o Enfermera) tomados de la Encuesta de Demografía y salud Familiar (ENDES) 2009-2014. **RESULTADOS:** El uso de recursos médicos en la intervención de la atención del parto normal se incrementó en el periodo 2009-2014 de $ 16,6 millones de dólares a $ 54,9 millones de dólares. En este periodo de tiempo, la proporción de partos ocurridos en establecimiento de salud y que fueron atendidos por profesional de la salud (Médico, Obstetra y/o Enfermera) se incrementó en 7,8% (de 81.3% en el 2009 a 89.1% en el 2014). **CONCLUSIONES:** El incremento del presupuesto asignado para la intervención de la atención del parto normal en el Perú, entre los años 2009-2014, incrementó la atención del parto institucional en un 7,8%, sin embargo se requiere una adecuada calidad de gasto ya que el presupuesto se incrementó en más del 300%.

PIH10: EVALUACION DE COSTO-EFECTIVIDAD DE UN PROGRAMA DE CUIDADOS INTEGRALES POST-ALTA TIPO HOSPITAL DE DIA PARA ADULTOS MAYORES COMPARADO CON EL MANEJO ESTANDAR EN EL SISTEMA PUBLICO

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OBJECTIVES: Evaluar la costo-efectividad de un programa tipo Hospital de Día (HD) comparado con el manejo estándar de adultos mayores (AMs) en el Sistema Público de Salud Chileno (SSPCH). **METHODS:** estudio de costo-efectividad basado en modelamiento y datos secundarios. Población objetivo: AMs beneficiarios del SSPCH que producto de una hospitalización han perdido independencia o funcionalidad. Perspectiva: SSPCH. Comparadores: programa del HD del Hospital Padre Hurtado versus manejo habitual en SSPCH. Tiempo horizonte: 30 años. Ciclos: 6 meses. Tasa de descuento: indiferenciada, 3% en caso basal. Outcomes en salud: años de vida y QALYs. Valoración de preferencias: cálculo de utilidades (aplicación cuestionario EQ5D), transformación a tarifa chilena. Costos: pesos chilenos ajustada a Septiembre 2014 según IPC. Costeo: resumen financiero del HD y arancel FONASA MAI 2014. Modelo: de novo según Índice de Barthel. Métodos analíticos: análisis incremental de costos y efectos, cálculo de la razón incremental de costo-efectividad (RICE) y beneficios netos incrementales (BNI), análisis de sensibilidad determinístico (ASD) y probabilístico (ASP). **RESULTADOS:** El programa HD para AMs versus el manejo en SSPCH es costo-efectivo para un umbral de referencia de 1 producto interno bruto per cápita (PIBpc) sugerido para Chile. La RICE se estimó en CL$666.258 (US$1,057 aprox) y se mantuvo bajo 1 PIBpc en el ASD (parámetros variaron ±10%). Según el ASP la probabilidad de ser costo efectivo es del 100% a 1 PIBpc. Se presentan BNI para distintos valores de umbral y curvas de aceptabilidad de costo-efectividad. **CONCLUSIONES:** el programa HD es costo-efectivo versus el manejo habitual en el SSPCH.

PIH11: EVALUACIÓN COSTO-EFECTIVIDAD DEL USO DEL RÉGIMEN COMBINADO DE MIFEPRISTONA Y MISOPROSTOL PARA ABORTO INCOMPLETO O DIFERIDO EN MUJERES CON EMBARAZOS DE HASTA 12 SEMANAS DE GESTACIÓN EN INSTITUCIONES DE SALUD PÚBLICA EN MÉXICO

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OBJECTIVOS: Realizar una evaluación costo-efectividad del uso del régimen combinado de mifepristona (200mg por vía oral) y misoprostol (800mcg bucales) para aborto incompleto o diferido en mujeres con embarazos de hasta 12 semanas en comparación con el uso de mifepristona (monoterapia), AMEU y LIU de gestación desde la perspectiva de las instituciones de salud pública en México. **METODOLOGÍAS:** La evaluación económica se realizó a través de un árbol de decisión que evalúa una cohorte hipotética de 1,000 pacientes. Como medidas de efectividad se emplean la tasa de resolución de la evacuación. El horizonte temporal es de 21 días, no se aplica tasa de descuento. Los resultados se expresan mediante la razón costo-efectividad promedio, que expresa el costo que habría que pagar por aborto exitoso. Se incluyen costos médicos directos, manejo inicial con Mifepristona-Misoprostol, Mifepristona (solo), AMEU o LIU; manejo de falla (estrategia de segunda y tercera opción), atención de eventos adversos y complicaciones. La perspectiva utilizada en esta evaluación es la del Sistema Nacional de Salud pública. **RESULTADOS:** Del modelo se obtiene el costo promedio esperado por paciente con Mifepristona+Misoprostol de $1,180.45; Misoprostol de $2,001.30; con AMEU de $16,937.01 y con LIU de $34,411.08. Lo que representa un ahorro con el uso del esquema combinado Mifepristona+Misoprostol de $820.86 con respecto al uso de Misoprostol, de $15,756.56 vs AMEU y de $33,230.63 al comparase contra el LIU. Al cruzar estos resultados vs la tasa de éxito se obtiene la razón Costo-Efectividad promedio para cada uno de los comparadores de $1,204.54, $2,199.24, $17,282.66 y $34,411.08 respectivamente. **CONCLUSIONES:** Mifepristona + Misoprostol es una estrategia costo ahorradora frente al resto de las alternativas disponibles a nivel institucional. Por lo que, su uso en el manejo del aborto incompleto y retenido permitiría optimizando la asignación de recursos por parte de las Instituciones de Salud Pública.

PIH12: COST-EFFECTIVENESS OF QUADRIVALENT HUMAN PAPILLOMA VIRUS (HPV6/11/16/18) VACCINATION IN ECUADOR

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OBJECTIVES: Estimate the costs averted and cases prevented of genital warts of the quadrivalent HPV6/11/16/18 vaccination program in a two-dose scheme in girls of 9-11 years old compared to an HPV 16/18 vaccination program in Ecuador, while preventing effectively for cervical cancer with both vaccines. **METHODS:** A previously developed transmission dynamic mathematical model (Elbasha & Dasbach, 2010) was adapted to evaluate the impact of routine vaccination of 9-11 year-old females. The model assumed coverage of 90% for two doses of HPV6/11/16/18 vaccine at international price rates versus HPV16/18 vaccine. Ecuador's model cost input data was estimated (Roldos & Bustamante 2014); and Ecuador´s disease values when available and Latin American values otherwise . **RESULTS:** In a 100-year period , HPV6/11/16/18 vaccination would result in reductions of HPV 6/11-related disease incidence at the population level as follows: genital warts in females (81.7%), genital warts in males (78.6%) and HPV6/11-related CIN1 (79.7%) . These results would translate into a reduction of HPV 6/11-related disease cost of between 55% to 60% for genital warts among females, genital warts among males, and HPV6/11-related CIN1, respectively. Under the model assumptions, the estimated net cost of vaccination with the HPV6/11/16/18 vaccine from a public health perspective would be close to -USD$190 million, adjusted to the net present value, this cost-saving represents USD$180,735,849.09 with a present value interest factor of 0.9512. **CONCLUSIONS:** In Ecuador, routine vaccination of 9-11 year old females with a quadrivalent HPV6/11/16/18 vaccine is cost-saving compared to a bivalent HPV 16/18 vaccine, which suggests a significant public health and economic impact.

PIH13: COST-EFFECTIVENESS OF PALIVIZUMAB IN PREMATURE INFANTS AND CHILDREN WITH CHRONIC LUNG DISEASE IN MEXICO

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OBJECTIVES: Respiratory syncytial virus remains one of the major reasons of re-hospitalization among early premature children (<29 weeks of gestational age [wGA], 29-32wGA) and children with chronic lung disease (CLD). This study estimated the cost-effectiveness of palivizumab prophylaxis versus placebo, in Mexico, from the societal perspective. **METHODS:** A decision-analytic model combining a decision tree structure in the first year and a Markov structure in later years was constructed to evaluate the benefits and costs associated with palivizumab among preterm children and children with CLD. In the first year, children were at risk of mild (i.e. medically attended) and severe (hospitalized) disease due to RSV infection. In later years of the model, children were at risk of developing asthma and allergic sensitization as sequelae of RSV disease. Input data for the model were derived from the pivotal clinical trial and systematic literature reviews. Indirect costs included parental absence from work, travel costs, and RSV nosocomial infections. Both costs (USD) and effects were discounted at 5%. Undiscounted results are presented as scenario analyses. **RESULTS:** For the <29wGA subgroup palivizumab prophylaxis was a dominant strategy, whereas for the 29-32wGA and CLD subgroups it yielded additional quality-adjusted life years (QALYs) at additional costs. In the base-case analysis, incremental costs for the <29wGA, 29-32wGA, and CLD subgroups were -$334, $708 and $2,420, respectively. Incremental QALYs for the <29wGA, 29-32wGA, and CLD subgroups were 0.081, 0.064 and 0.074, respectively. The ICERs for the discounted analyses were thus - $4,107/QALY, $11,042/QALY, $32,707/QALY, respectively. The corresponding figures in the undiscounted analysis were -$3,789/QALY, $3,185/QALY, and $11,353/QALY for the <29wGA, 29-32wGA and CLD subgroups, respectively. **CONCLUSIONS:** The model results demonstrated that palivizumab prophylaxis is a dominant prophylaxis strategy for early preterm children (<29wGA) and a cost-effective preventative treatment option for preterm children (29-32wGA) and children with CLD in Mexico.

PIH14: ECONOMIC EVALUATION OF ULIPRISTAL ACETATE FOR THE TREATMENT OF PATIENTS WITH MODERATE AND SEVERE SYMPTOMS OF UTERINE FIBROIDS BEFORE SURGERY IN MEXICO

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OBJECTIVES: Uterine fibroids are the most common benign tumors of the female genital tract. Many patients require surgery, and the choice of treatment is guided by the patient's age and desire to preserve fertility and avoid hysterectomy. Ulipristal acetate is a selective progesterone receptor modulator effective on reducing bleeding, significantly decrease fibroid volume and avoiding surgery when use as pre-operative treatment for moderate to severe symptoms of uterine fibroids in adult women of reproductive age. This analysis assess the cost-effectiveness of 3 months treatment with 5 mg of ulipristal acetate in patients eligible to undergo fibroid surgery in Mexico. **METHODS:** A cost-effectiveness analysis was conducted using a decision tree approach in a 1-year time horizon. The perspective of the analysis was that of the Mexican Social Security Institute (IMSS). Comparators are Ulipristal acetate vs leuprolide acetate. The model comprised the following mutually exclusive health states: moderate, severe, or persistent severe excessive bleeding disorder, hysterectomy, no surgery. Probabilities were obtained from clinical trials and the scientific literature. Resource utilization and unit costs derived from the Groups Related to Diagnosis (GRD) and the Financial Direction from the Mexican Social Security Institute (IMSS). Costs were converted to UD dollars (1 USD = 15.42 MXN). **RESULTS:** In patients eligible to undergo fibroid surgery, ulipristal acetate clinical success rate difference reached a 50% on reducing bleeding and a significant decrease on fibroid volume, which can lead to a less invasive surgery or totally avoid it. Regarding avoided hysterectomy, 21% of the patients treated with ulipristal avoided hysterectomy, which represents savings for $47,614,017 USD every 1,000 patients. **CONCLUSIONS:** Ulipristal acetate is a cost-effective alternative when compare to leuprolide acetate. The results suggest that Ulipristal acetate can represent significant savings for the IMSS when used in patients with moderate and severe symptoms of uterine fibroids.

PIH15: COSTO EN SALUD DEL PROGRAMA PRESUPUESTAL DE SALUD MATERNO NEONATAL PARA REDUCIR LA TASA DE MORTALIDAD MATERNA Y NEONATAL EN EL PERÚ, 2009 - 2014

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OBJECTIVOS: Estimar el costo en salud del Programa Articulado de Salud Materno Neonatal para reducir la tasa de mortalidad materna y neonatal en el Perú, 2009-2014. **METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en referencia al recurso humano, materiales médicos y equipamiento. Se tomó en consideración la asignación presupuestal al Programa de Salud Materno Neonatal, en el marco de Presupuesto por Resultados (PpR). Se contrastó el uso de recursos médicos por el Programa de Salud Materno Neonatal versus la meta de los indicadores de resultados del programa (tasa de mortalidad materna y tasa de mortalidad neonatal) tomados de la Encuesta de Demografía y salud familiar (ENDES) 2007-2014. **RESULTADOS:** El uso de recursos médicos en el Programa de salud Materno Neonatal se incrementó en el periodo 2009-2014 en recursos humanos de $ 69 713,248 a $ 218 511,087, materiales e insumos médicos de $ 51 446,570 a $ 163 575,934, equipamiento de $7 530587 a $ 23 120,516. La tasa de mortalidad neonatal se redujo de 13 a 11. La tasa de mortalidad materna se redujo de 103 a 93. **CONCLUSIONES:** Se evidencia un importante incremento presupuestal en el Programa Articulado Salud Materno Neonatal lo que se traduce en una reducción de la tasa de mortalidad materna del 10% en el periodo 2009 a 2014 y una reducción del 15% de la tasa de mortalidad neonatal en el periodo 2009 a 2014. Sin embargo, se requiere una mejora en la calidad de gasto que permita alcanzar el quinto objetivo de desarrollo del milenio (mejora de la salud materna).

INDIVIDUAL'S HEALTH - Patient-Reported Outcomes & Patient Preference Studies

PIH16: AN EQ-5D-3L VALUE SET FOR TRINIDAD AND TOBAGO

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OBJECTIVES: To develop an EQ-5D-3L Value set for Trinidad and Tobago **METHODS:** A Bayesian efficient Discrete Choice Experiment (DCE) design was developed using priors that were obtained from a pilot study undertaken in Trinidad and Tobago previously. The design comprised 20 pairs of EQ-5D-3L states. A 5-state Time Trade Off (TTO) exercise was included in the elicitation protocol. The mean TTO values were used to rescale the coefficients obtained in the DCE on to a 0-100 scale. A representative sample of 300 respondents completed the warm up tasks, TTO and DCE elicitation exercises. **RESULTS:** Analysis of the data produce an internally valid model with characteristics similar to the model obtained in the pliot (in terms of the relative levels of importance among the 5 dimensions). **CONCLUSIONS:** The protocol developed for this study can be easily used in the other small developing health systems of the Caribbean which would allow resource allocation decision making to be based on the preferences of the populations of such countries.

PIH17: HEALTH RELATED QUALITY OF LIFE IN A COMMUNITY DWELLING ELDERLY SAMPLE IN BRAZIL

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OBJECTIVES: To explore and characterize Health Related Quality of Life (HRQoL) in a community dwelling elderly sample and to

investigate the determinants of HRQoL assessed by EQ-5D-3L. **METHODS:** Data was collected from a sample of newly-admitted elder participants of a social program that takes place in Rio de Janeiro, Brazil. This dataset includes data from 149 individuals older than 60 years, interviewed from May 2014 to November 2014. The interview comprised information on sociodemographic characteristics, life-style and general health. The HRQoL was assessed using the EQ-5D-3L, cognitive impairment was assessed using the Mini Mental State Examination (MMSE) and social support was measured using the MOS Social Support Survey (MSSS). Participants with cognitive impairment (MMSE<18) were excluded from this analysis. Exploratory analysis and literature research were used to identify potential HRQoL predictors to be included in the model. The Mann-Whitney and Kruskall–Wallis tests were applied to examine the differences in means between categories. Ceiling and floor effects, represented by the proportion of participants with the best and worst theoretical scores respectively, were also examined. EQ-5D Index Values were estimated using the weights from the Brazilian valuation study. **RESULTS:** The sample (n=144) is composed by 84% women, with a mean age of 70.5 years (SD=6.8). The overall utility mean was 0.76(SD=.114) and the EQ-VAS was 79.7(SD= 17.83). While floor effects found for both EQ-5D descriptive system and EQ-VAS were negligible (less than 1% in both measures), the ceiling effects were considerable (12.5% on EQ-VAS and 21.5% on Descriptive System). Men (0.81,SD=0.09) presented higher HRQoL (Z=-2.581, p=0.009) than and women (0.75, SD=0.11). Several variables were tested, but only diabetes (β=-0.05), depression (β=-0.06), back problems (β=-0.08), and cancer (β=-0.12), integrated the final model [F=16.35 (p<0.001); df1=4, df2=139; adj.R2=0.3004)]. **CONCLUSIONS:** Chronical diseases were identified as predictors of HRQoL in our sample. These results are consistent with the literature.

PIH18: INTERREGIONAL VALUATION OF PATIENT SATISFACTION WITH PHARMACEUTICAL CARE AS A TOOL FOR INCREASING QUALITY MANAGEMENT IN COMMUNITY PHARMACY AND PATIENTS QUALITY OF LIFE

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OBJECTIVES: New role of pharmacist based on the concept of changing the pharmacist's focus from drug providing and distributing services to more patient-oriented approaches with positive impact on patient´s quality of life differs regionally. **METHODS:** Interregional valuation of patient satisfaction with pharmaceutical care based on previous extended literature research, on studies with psychometrical analysis that focuses on items from Management of therapy (15), Interpersonal relationship (9) and General satisfaction dimension (4). A 5-point Likert scale (from strongly agree (1) – till strongly disagree (5)) was used to measure the patients' attitudes and expectations with the pharmaceutical care provided in community pharmacies between regions. Essential reasons for visiting the pharmacy and for choosing a particular pharmacy were evaluated either. Descriptive and inferential statistics were used to analyse the data. The study was conducted in numerous cities of Bratislava region and the rest regions of Slovak republic. **RESULTS:** Essential reasons for visiting the pharmacy were (Bratislava region/ Rest regions of Slovakia): patient had a recipe (71.5/70.2%), wanted to buy OTC products and food supplements (78.6/69.0%) and other goods (31.1/27.0%) Essential reasons for choosing a particular pharmacy were pharmacy availability (79.3/73.1%); good experience with pharmacy (48.2/49.4%) and pharmacy staff (32.5/32.0%). The best valuated dimension was Interpersonal relationship 62.8/63.1% (mean=16.72/33.5, median=16/16, Std=5.67/5.35, min= 9/9, max=45/44) followed by General satisfaction 58.6/60.0% (mean=8.29/8.05, median=8/8, Std=2.59/2.57, min=4/4, max=20/18). The worst valuated dimension was Management of therapy 53.9/55.3% (mean=34.58/33.5, median=35/34, Std =10.51/10.50, min=15/15, max=75/72). **CONCLUSIONS:** Interregional valuation of patient satisfaction revealed that patient satisfaction varies from 53.1-63.1% depending on assessed dimension and region. Patient in rest regions of Slovakia are slightly more satisfied with pharmaceutical care in all dimensions. It may mean that patients are already achieving health care services with better quality management focused on „modern pharmaceutical care", which may increase their quality of life.

PIH19: VALUATION OF PATIENT SATISFACTION WITH PHARMACEUTICAL CARE AS A TOOL FOR INCREASING QUALITY MANAGEMENT IN COMMUNITY PHARMACY AND PATIENTXS QUALITY OF LIFE

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OBJECTIVES: The pharmacists´ role in the health care systems has grown and changed in the last years to encompass areas beyond the dispensing function. These new role is based on the concept of changing the pharmacist's focus from drug providing and distributing services to more patient-oriented approaches with positive impact on patient´s quality of life. **METHODS:** Valuation of patient satisfaction with pharmaceutical care, conducted in numerous cities of Bratislava region Slovak republic, was based on previous extended literature research, on studies with psychometrical analysis that focuses on items management of therapy (15), interpersonal relationship (9) and general satisfaction dimension (4). A 5-point Likert scale (from strongly agree (1) – till strongly disagree (5)) was used to measure the extent patients' attitudes and expectations with the pharmaceutical care provided in community pharmacies. Descriptive and inferential statistics were used to analyse the data. **RESULTS:** Essential reasons for visiting the pharmacy were: patient had a recipe (71.5%), wanted to buy OTC products and food supplements (78.6%) and other goods. Essential reasons for choosing a particular pharmacy were pharmacy availability (79.3%); good experience with pharmacy (48.2%) and pharmacy staff (32.5%). The best valuated dimension was Interpersonal relationship 62.8% (mean=16.72, median=16, Std=5.67, min= 9, max=45) followed by General satisfaction 58.6% (mean=8.29, median=8, Std=2.59, min=4, max=20). The worst valuated dimension was Management of therapy 53.9% (mean=34.58, median=35, Std =10.51, min=15, max=75). **CONCLUSIONS:** Valuation of patient satisfaction revealed that patient satisfaction varies from 62.8-53.9% depending on assessed dimension. This implies that there is still potential for improvement. It can be achieved by better quality management of health care services at health care provider focused more on „modern pharmaceutical care" that moves from focus on drugs to the patient. Hopefully from this transfer process may benefit patient by improving his quality of life.

PIH20: KNOWLEDGE AND CONTRACEPTIVE USE AMONG CURRENTLY MARRIED WOMEN AGED 15-49 IN WESTERN KENYA

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OBJECTIVES: Knowledge of family planning methods is prerequisite for making an informed choice to initiate contraceptive use. This could also help the couple to delay or avoid unplanned pregnancy. The objective of the study was to establish the knowledge and use of various modern family planning methods among married women in western Kenya. **METHODS:** A household baseline survey was carried out in two provinces in western Kenya e.g. Nyanza and Western in which 1201 currently married women were interviewed on the type of family planning methods known and currently being used. Data analysis was done using SPSS version 16.0 in which cross-tabulations were generated, charts created; interpretation and implication of the results were made. **RESULTS:** The study showed that slightly more than half i.e. 58% (702/1201) of the respondents knew and were currently using about 11 family planning methods. The injectables 89% (628/702), pills 79% 9551/702) and implants 58% (432/702) were the most widely known and used methods. The least known and used family planning methods included; spermicides 1% (9/702), Diaphragm 2% (16/701) and vasectomy 4% (34/668) respectively. **CONCLUSIONS:** Knowledge of family planning methods is a prerequisite for making a decision to start contraceptive use. Most emphasis is placed on women because they have the greatest level of exposure to the risk of pregnancy and most methods of contraception are designed for them. Even though the study did not ask the respondents to state their preferred family planning methods in future ,similar surveys indicate that the above three widely used methods are still the most preferred family planning methods in future among women of reproductive age.

PIH21: CAMBIOS EN LA PERCEPCIÓN DE LA CALIDAD DE VIDA RELACIONADA CON LA SALUD POR DIFERENCIAS EN EL ACCESO Y EL RÉGIMEN DE AFILIACIÓN EN BOGOTÁ

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OBJECTIVOS: Establecer las diferencias en la percepción de calidad de vida relacionada con la salud por acceso y régimen de afiliación en población usuaria de los servicios de salud en la ciudad de Bogotá.**METODOLOGÍAS:** Se desarrolló un estudio trasversal utilizando una encuesta que incluía los datos generales del paciente, el instrumento EQ5D5L, la escala visual análoga y preguntas relacionadas con el acceso a los servicios, basadas en el modelo de Aday y Andersen. La muestra fue obtenida mediante el análisis de diferencia de medias, teniendo en cuenta estudios previos colombianos que usaron EQ5D3L. La población objetivo fue captada en centros de atención de salud de cada régimen. Fueron analizadas las diferencias entre las medidas cualitativas de calidad de vida y las características de acceso. **RESULTADOS:** Se recolecto un total de 154 encuestas, 77 en cada régimen. La medida promedio de calidad de vida para los afiliados al sistema contributivo fue de 85,5 mediante la escala visual análoga y 11121 con el EQ5D5L frente a 79,5 y 11122 en los afiliados al sistema subsidiado, respectivamente. Al relacionar con el nivel de acceso la medida de la EVA cambia de acuerdo al nivel de acceso, paral contributivo a 70,83 DE (8,3), mientras que en el subsidiado no presenta cambios. El análisis univariado mostró que las variables: estar enfermo, ser hombre, y estar discapacitado son las de mayor impacto en las variaciones Dentro de las dimensiones que afectan al calidad de vida las más afectadas son dolor/malestar y ansiedad/depresión que se encuentran con afectación en 10% y 5%. **CONCLUSIONES:** El análisis muestra que las variaciones en el acceso no afectan la medida del régimen subsidiado de manera significativa pero sí se afecta por tipo de afiliación al sistema probablemente por las mismas condiciones socio-económicas que llevan a pertenecer a cada régimen.

INDIVIDUAL'S HEALTH - Health Care Use & Policy Studies

PIH22: AVALIAÇÃO DA EFICÁCIA E SEGURANÇA DO IBUPROFENO VERSUS DEMAIS ANTI-INFLAMAT"RIOS NÃO ESTEROIDAIS, NO TRATAMENTO DE RECÉM-NASCIDOS PREMATUROS COM PERSISTÊNCIA DO CANAL ARTERIAL

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OBJETIVOS: Avaliar a eficácia e segurança do ibuprofeno vs. demais anti-inflamatórios não esteroidais, no tratamento de recém-nascidos prematuros com persistência do canal arterial. **MÉTODOS:** Após elaborar a pergunta estruturada, a busca nas bases de dados MEDLINE, Cochrane Library, Tripdatabase, e CRD, foi realizada em 08/02/2015, utilizando os descritores MeSH ("Ductus Arteriosus, Patent"[Mesh]) AND ("Anti-Inflammatory Agents, Non-Steroidal"[Mesh]) AND (systematic[sb]) e seguiu as diretrizes de Avaliação de Tecnologias em Saúde do Ministério da Saúde. Foram identificadas 98 referências, após o processo de seleção norteado pela pergunta estruturada e pelos critérios de qualidade descritos no instrumento AMSTAR, 6 referências relataram algum processo sistemático de recuperação de evidências. **RESULTADOS:** O risco relativo (RR) de alcançar o fechamento da persistência do canal arterial não apresentou diferença significativa entre o tratamento com ibuprofeno intravenos (IV)vs. indometacina (IV) (RR = 1; IC 95% = 0.93–1.08). Quando comparado o ibuprofeno oral vs. indometacina oral ou IV, também não houve diferença estatisticamente significativa (RR = 0,96; IC 95% = 0.73–1.27). Já quando comparado, ibuprofeno oral vs. (IV), o risco de falha no fechamento da persistência do canal arterial foi 59% menor no grupo oral (RR = 0,41; IC 95% = 0.27–0,64). Os resultados demonstram ainda uma menor tendência dos casos de enterocolite necrosante ao usar ibuprofeno oral. **CONCLUSÕES:** Ao comparar ibuprofeno (IV) vs. indometacina (IV), é necessário avaliar outros parâmetros para auxiliar na tomada de decisão. O ibuprofeno oral parece ser uma alternativa eficaz e segura, nos casos em que o intravenoso esta indisponível devido às diferentes restrições.

PIH23: GENERIC DRUGS ADOPTION IN TURKISH HEALTHCARE SYSTEM

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OBJECTIVES: Turkish Healthcare System under transformation since 2002 called ''Health Transformation Programme''. One of the key point regarding those changes is the introduction of "brand-generic drugs substitution", in terms of the health and economic impact for the healthcare system. Primary concern is the minimization of health expenses with satisfied health outcomes, for this countries need to eliminate unnecessary spending on medicines related prescribing and pricing within affordable limits for each stakeholder. The aims of this study are to show generic drug use of Turkey and marketshare of generics in pharmaceutical market of Turkey. We will focus on marketshares of generics and original drugs between the years 2008-2013 **METHODS:** Data of generic and original drugs sales percentage taken from Turkish Medical Devices and Medicines Agency report published in 2014. Report data comprise of IMS data and indicated the years between 2008-2013. **RESULTS:** It has found that sales value of generic drugs increased from 33,5% to 36,2% from the years 2008 to 2013. In same period original drugs sales value decreased from 66,5% to 63,8%. In same period box sales of generics increased 24% while original drugs box sales increased %23. Despite of generic box sales increased 1% more than original box sales. It shown that price settings effects generic drugs more than original drugs during the period 2008-2013. On the other hand we can predict that drugs sales has close relation with drug price settings. Turkey is using internal and external reference pricing system since 2004. **CONCLUSIONS:** Turkey has been processing "Health Transformation System" (HTP) since 2002. Drugs price settings was one of important key change is this programme. Drugs sales may affected from price setting. Drug usage increased as a result of HTP. Further studies needed to understand relationship between price settings and drug usage.

PIH24: CHARACTERISTICS OF PEDIATRIC PATIENTS WITH RELAPSING REMITTING MULTIPLE SCLEROSIS TAKING DISEASE MODIFYING AGENTS

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OBJECTIVES: The objective of this study is to assess the characteristics of relapsing remitting multiple sclerosis (RRMS) patients taking disease modifying therapies (DMTs) in the US. **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≤ 17 years of age and continuously enrolled in the same health plan for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 359 patients that met the study inclusion criteria. The mean age of the patients was 14.19 ± 2.29 years, 61.6% of the patients were females, and majority of the patients were between 12 and 17 years of age (85.5%). Thirty three percent of the patients were from East, 20.1% were from Midwest, 36.2% from South and 10.6% is from West region. 59.6% of the patients were on a group coverage plan and 49.3% of the patients were on a DMT prescription that is under their health plan formulary. Majority of the patients (95%) were prescribed 30 days' supply of DMTs, 1.7% were on 60 days' supply and 3.3% were on 90 days' supply of DMTs. More than half of the patients (53.8%) were diagnosed with mental health problems in addition to their RRMS as a primary diagnosis. On average, patients were continuously enrolled for 5.10 ± 1.74 years and submitting around 466 claims during this period. **CONCLUSIONS:** The majority of the pediatric patients were teenagers and females. One third of the patients was from south and received on average a 30 days' supply of DMT.

PIH25: ENVELHECIMENTO POPULACIONAL E AS POLÍTICAS PÚBLICAS DE SAÚDE NO BRASIL

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OBJETIVOS: Caracterizar as políticas públicas de saúde no Brasil, com enfoque no envelhecimento populacional, na perspectiva histórica, econômica e constitucional. **MÉTODOS:** : Revisão bibliográfica, retrospectiva, descritiva e comparativa de políticas públicas de saúde voltada aos idosos. A abordagem temporal se estende de 1930 até a atualidade. **RESULTADOS:** O estudo evidenciou que as políticas públicas de saúde acompanham a trajetória econômica vigente do país, centradas temporalmente nos interesses econômicos: atividade agroexportadora (até 1930), processo de industrialização (1930-1990) e abertura econômica (1990-atual). Vinculam-se as políticas de saúde, sequencialmente, à erradicação das epidemias, principalmente, nas áreas portuárias, proteção do trabalhador urbano sob modelo excludente visando apenas aqueles inseridos no sistema formal de trabalho e, finalmente, a saúde como direito universal com a promulgação da Constituição Federal de 1988. Nesse último período, estabeleceu-se o marco legal dos direitos dos idosos. A década de1990 e anos 2000 destacam-se pelas leis que amparam a pessoa idosa, tais como: a LOS – nº 8.080/1990, a LOAS / 1993; a Política Nacional da Assistência Social /2004; a Política Nacional do Idoso / 1994; o Estatuto do Idoso/2003; Pacto pela Vida / 2006; a Política Nacional de Saúde da Pessoa Idosa/ 2006 e a resolução nomeada com Tipificação Nacional dos Serviços Socioassistenciais /2009. No período atual, o Brasil passa por processo de transição demográfica e epidemiológica devido ao aumento da expectativa de vida dos indivíduos; a redução do índice de natalidade e de mortalidade; a mudança do perfil demográfico e epidemiológico. Tais fatores contribuíram para o crescimento da demanda por serviços de saúde. **CONCLUSÕES:** Em período anterior a 1988 não se evidenciavam políticas públicas legais de proteção aos idosos. Observou-se que diversas ações de prevenção e promoção da saúde foram adotadas, principalmente em termos da legislação, após a Constituição de 1988, visando garantir proteção social aos idosos.

PIH26: KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS MEDICATION USE AMONG POST-GRADUATE PHARMACY STUDENTS

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OBJECTIVES: To assess the knowledge and practice with respect to use of medicines, among post-graduate pharmacy students. **METHODS:** This cross-sectional study was carried out among the post-graduate students of NIPER, Mohali, during the period of Nov. 2014 to Feb. 2015. The method of data collection was based on pre-designed questionnaire containing close ended questions. Participants were randomly selected. Questionnaire inquired about their knowledge with respect to medicine, attitude and practising behaviour. Reponses received during the study period were coded and analysed using SPSS. **RESULTS:** A total of 200 students responded to the study. All the respondents were postgraduates in the age group of 20-30 years. About 95% respondents completed their dosage regimen as prescribed. Almost all the respondents (86%) said that they always shake the cough syrup bottle before use. Almost a three-quarter respondents asked the prescriber or dispenser about the possible side-effects of the prescribed medication. Majority (94%) of the respondents practised self-medication. Most common reasons for practising self-medication was found to be convenience (37.5%) followed by quick relief (25%), time saving (15%), economical (8.5%) and others (14%). 71% of the respondents reported the habits of sharing medicine with others. High prevalence (91%), of unused medication was reported. Most common reason cited for unused medication was discontinuation of medicines when patients start feeling better. **CONCLUSIONS:** The result of this study reflects a high prevalence rate of self-medication and unused medication. This needs to be addressed appropriately. Promotion of rational use of medicine is important to achieve the required effectiveness of the medicines.

MENTAL HEALTH - Clinical Outcomes Studies

PMH1: IMPACT OF NEGATIVE SYMPTOMS ON QUALITY OF LIFE IN PATIENTS WITH SCHIZOPHRENIA

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OBJECTIVES: The present study analyses the impact and influence of negative symptoms on quality of life (QoL). **METHODS:** The W-SOHO study is a three year follow-up study on the outpatient care of schizophrenia that included 17,384 patients from 37 countries. Patients were recruited in W-SOHO by their treating psychiatrists when starting or changing antipsychotic medication. Evaluation was conducted during the normal course of care and was scheduled every six months after the baseline visit. The Clinical Global Impressions Severity Scale – Schizophrenia version (CGI-SCH) was used to assess symptom severity across overall, positive, negative, depressive and cognitive subdomains. Quality of life (QoL) was assessed using the EuroQOL 5-D questionnaire. Pearson correlation coefficients (PCC) were used to analyze the relationship between continuous variables. A mixed model with repeated measures (MMRM) was used to analyze the factors associated with quality of life during follow-up. **RESULTS:** Quality of life at baseline was more highly correlated with negative symptoms than with positive symptoms (PCC -0.25 for positive symptoms and -0.29 for negative symptoms; $p<0.001$). Improvement in negative symptoms was highly correlated to improvement in QoL (PCC 0.33; $p<0.0001$). The regression model analysing the influence of both positive and negative symptoms on QoL at baseline was confirmative and showed a greater beta coefficient (higher influence) for negative symptoms compared with positive symptoms [(3.9 (se 0.14) versus 2.9 (se 0.13)]. Another model found that patients with greater negative symptoms at baseline experienced lower improvement in QoL (beta coefficient -0.81; se 0.11; $p<0.001$). **CONCLUSIONS:** In patients with schizophrenia negative symptoms seem to have a larger influence onself-perceived QoL than positive symptoms. Improvement in negative symptoms is highly associated with improvements in QoL.

PMH2: AVALIAÇÃO DE TECNOLOGIAS NO TRATAMENTO DA DEPRESSÃO MAIOR: OVERVIEW SOBRE A EFICÁCIA E SEGURANÇA DA DULOXETINA, VENLAFAXINA E TRAZODONA COMPARADOS À FLUOXETINA

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OBJETIVOS: O objetivo desse estudo é revisar a evidência científica disponível sobre a eficácia e segurança dos antidepressivos de segunda geração duloxetina, venlafaxina e trazodona em comparação à fluoxetina para o tratamento do Transtorno Depressivo Maior (TDM) em adultos. **MÉTODOS:** Buscaram-se revisões sistemáticas (RS) de ensaios clínicos que comparassem a eficácia e segurança dos medicamentos duloxetina, venlafaxina e trazodona frente à fluoxetina para o tratamento do TDM nas bases de dados PUBMED, LILACS, CENTRAL e CRD. A avaliação da qualidade da evidência foi realizada por meio da ferramenta GRADE. Avaliações de Tecnologias de Saúde (ATS) e guias terapêuticos foram pesquisados em sites de agências nacionais e internacionais. O custo mensal do tratamento foi calculado para aquisições por compras públicas**.RESULTADOS:** Foram incluídas 12 RS com meta-análise. Em geral os estudos apresentaram baixa qualidade metodológica. Nove estudos apontaram superioridade do tratamento com venlafaxina frente à fluoxetina na redução de 50% dos sintomas. A razão de resposta (RR ou OR) entre os grupos venlafaxina e fluoxetina variou entre 1,12 e 1,36. Em geral, a taxa de abandono e a incidência de eventos adversos foram maiores para os grupos venlafaxina e duloxetina, comparados ao grupo fluoxetina. As 4 ATS encontradas concluíram que os antidepressivos de segunda geração possuíam eficácia comparável à da fluoxetina, com maior custo associado. O tratamento com a fluoxetina corresponde ao menor valor. **CONCLUSÕES:** Verificou-se baixa qualidade da evidência dos resultados, menor custo de tratamento com o medicamento fluoxetina e recomendações das Agências de ATS e guias terapêuticos quanto a eficácia comparável entre os antidepressivos e

indicação da fluoxetina no diagnóstico inicial do TDM. Recomenda-se que a fluoxetina seja o medicamento de primeira escolha para o tratamento do TDM em pacientes adultos e em caso de resposta inadequada, a venlafaxina poderia ser utilizada como segunda escolha.

PMH3: EVIDENCE OF EFFICACY AND SAFETY OF METHYLPHENIDATE IN THE TREATMENT OF CHILDREN OR ADOLESCENTS WITH ATTENTION DEFICIT DISORDER AND HYPERACTIVITY (ADHD)

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OBJECTIVES: To evaluate the efficacy and safety of methylphenidate compared to other pharmacological alternatives or placebo in the treatment of ADHD. **METHODS:** Health technology assessments (HTA), randomized clinical trials (RCT) or systematic reviews (SR) of RCT were systematically researched. Inclusion criteria were placebo or pharmacological intervention as comparators, and children or adolescents as population. Studies about different dosis or presentations of methylphenidate were also selected. **RESULTS:** One ECR, four SR and two HTA were selected comparing methylphenidate to placebo, atomoxetine, buspirone, dexamphetamine. Methylphenidate was superior to placebo in the index of hyperactivity detected by parents and teachers, behavior during the execution of tasks, productivity in classroom and in precision of the activities. Response rates to treatment and abandonment were better as compared to atomoxetine. Compared to buspirone, methylphenidate was shown to be more effective in reducing the symptoms of ADHD. Benefits of methylphenidate on dexamphetamine are inconclusive. Low dose methylphenidate was superior to high dose in behavior improvement on the execution of tasks. There was no difference between long and short acting presentations. Regarding security: anorexia, insomnia, migraines, stomach pain and dizziness were often associated with methylphenidate. **CONCLUSIONS:** Primary studies showed methodological limitations such as low quality, short follow up and low capacity of generalization. The evaluation of the results should be cautious. It is necessary to find a balance between benefits and risks before starting the administration of methylphenidate in children and adolescents, especially in long-term treatments.

PMH4: COMPARATIVE TOLERABILITY OF NEW ANTIPSYCHOTIC DRUGS IN SCHIZOPHRENIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: Evaluate the tolerability of three antipsychotic drugs – asenapine, iloperidone and lurasidone – in the treatment of schizophrenia. **METHODS:** An eletronic search was performed in Medline (Pubmed), Cochrane Library, Scopus, Science Direct and Scielo. A systematic review and meta-analysis of randomized controlled trials (RCTs) comparing the use of any of the above-mentioned drugs versusplacebo in schizophrenia was realized. Publications available in English, Portuguese, Spanish, French and German were evaluated. The main outcome was tolerability related to the number of withdrawals patients in each study, due to the presence of adverse events or treatment failure. The analyses were performed using software Addis (v.1.16.5) and RevMan (5.1). **RESULTS:** A total of 979 documents were initially identified and 11 of them met the selection criteria to meta-analysis. No significant differences were observed between the number of withdrawals patients due adverse events in any meta-analysis of control versus intervention. The odds ratio ranged from 0.68 (CI 032-1.45) to placebo versus asenapine, 1.37 (CI 0.29-1.33) to placebo versus iloperidone and 0,71 (CI 0,36-1,41) to placebo versus lurasidone. However, all drugs were superior to their respective controls for the outcome of number of withdrawals by treatment failure, with odds ratio between 1.70 (CI 1.21-2.39) and 2.36 (CI 1.36-4.07). These results suggest that there is a higher effectiveness among patients for the treatment intervention that should be evaluated through clinical responses. Heterogeneity between studies (evaluated by I2 values) were low or moderate, not superior than 39,5% in any meta-analysis. **CONCLUSIONS:** Information and knowledge reunion and confrontation on the tolerability profile of a particular drug allows safer decisions over the therapeutic approach, focused on patient's interest which directly reflects on treatment follow-through and therapy effectiveness. In this study, we report evidence on asenapine, iloperidone and lurasidone greater tolerability profile compared to placebo in schizophrenia treatment.

MENTAL HEALTH - Cost Studies

PMH5: LAGRANGE METHOD FOR BUDGET OPTIMIZATION ANALYSIS IN RESOURCE ALLOCATION FOR ANTIPSYCHOTIC THERAPIES IN COLOMBIA

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OBJECTIVES: To simulate the optimal budget allocation for first line antipsychotic medications in schizophrenia which minimize relapses. **METHODS:** From the health system perspective, a Lagrange budget optimization analysis was performed with the SOLVER application in order to estimate the efficient market share of first line antipsychotics (oral, depot and Long Acting Injectable - LAI). The following parameters were gathered and validated in five psychiatric institutions: target population, current market share, adherence to the treatment, risk of relapse, and the usage of outpatient and inpatient care resources. The tariffs were taken from official and institutional sources. The time frame was one year. Two scenarios were compared: the current and the optimum. **RESULTS:** Current scenario: assuming a budget constraint of USD 250,000, a target population of 381 patients and a baseline market share (oral 95.7%, depot 2.3% and LAI 2.0%), 150 relapses were avoided (savings of USD 320,086). With the Optimum scenario market share [oral

83.0%, depot 4.0% and LAI 13.0%], 208 relapses were avoided [savings of USD 445,986]. **CONCLUSIONS:** Assuming a fixed budget for first line antipsychotic treatments, increasing the usage of LAI enable a budget optimization and relapses minimization.

PMH6: COSTS OF RELAPSE OF SCHIZOPHRENIA FOR THE ARGENTINIAN HEALTH SYSTEM

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OBJECTIVES: To quantify the cost of schizophrenia relapse in Argentina from the perspective of the public and third party payer. Schizophrenia is a chronic, severe, and disabling mental disorder that significantly affects a person's thought processes and emotional responsiveness. Due to the debilitating nature of the illness, people with schizophrenia have a relatively high utilization rate of health care and mental health services. Although there is currently no cure for schizophrenia, treatment is available to manage the symptoms and reduce the risk of relapse. However, poor adherence to treatment remains a significant issue with evidence showing that up to 60% of patients are partially or totally non-adherent to their prescribed oral treatments. **METHODS:** A cost of disease study was performed including direct, indirect and transference costs of relapses in schizophrenia. Bottom-up and top down methodologies were used to obtain direct costs of health care services consumed by this population. Validation of clinical criteria took place with local KOLs. Burden of disease was calculated using Disability Adjusted Life Years (DALY) supported by the CEPAL. The impact on the local economy was also included by obtaining transference costs. **RESULTS:** This study estimated that there were 415,870 patients with schizophrenia, from which 87.333 experienced some episode of relapse in Argentina. This corresponds to 21% of patients with schizophrenia. The total potential avoidable direct healthcare cost of relapse, total indirect cost over a 12 month period, and percentage of people not employed due to relapsing disease were calculated and will be presented in the publication. **CONCLUSIONS:** Argentinian decision makers in health can largely benefit by controlling relapses for these types of patients. This study is one of the first approaches at quantifying the impact of the disease and its relapse.

PMH7: COSTO DE ENFERMEDADES MENTALES PREVALENTES EN PERÚ

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OBJECTIVOS: Estimar los costos de enfermedades mentales prevalentes (EMP) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes afiliada al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de pacientes con enfermedades mentales prevalentes (EMP) es de 75,584 (Incidencia esquizofrenia: 1%, incidencia de ansiedad: 19.5%, incidencia de depresión: 9% e incidencia de alcoholismo: 11.6%). El costo total para EMP es de 21,893,108 dólares distribuido según enfermedad para esquizofrenia 3,356,030 dólares (15%), ansiedad 2,040,292 dólares (9%); depresión 12,621,897 dólares (58%) y para alcoholismo 3,874,889 (18%). El costo total correspondiente a prevención es 943,888 dólares (4.3%), diagnóstico 1,771,448 dólares (8.1%), tratamiento 15,030,859 dólares (68.7%) y para seguimiento 4,146,913 dólares (18.9%). El costo fijo correspondió a 10,160,137 dólares (46.4%) y el costo variable a 11,732,971 dólares (53.6%). **CONCLUSIONES:** El costo anual total para enfermedades mentales prevalentes en el país se estimó en 21,893,108 dólares. Este monto representa el 91.3% del presupuesto asignado 2015 del Programa Presupuestal 131 Control de Enfermedades Mentales.

PMH8: EVALUACION ECONOMICA DEL SEGUIMIENTO FARMACOTERAPÉUTICO EN PACIENTES CON TRASTORNO AFECTIVO BIPOLAR I

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OBJECTIVOS: El seguimiento farmacoterapéutico (SFT) es una tecnología en salud, en la cual un profesional farmacéutico se responsabiliza de las necesidades del paciente para contribuir al logro de mejores resultados farmacoterapéuticos posibles. Propósito para el cual el método Dáder ha sido ampliamente utilizado. El objetivo de este estudio fue realizar un análisis costo efectividad del efecto del método Dáder de SFT en pacientes con Trastorno Afectivo Bipolar (TAB I), usando la perspectiva del tercer pagador en Colombia. **METODOLOGÍAS:** Análisis de costo/efectividad del SFT en pacientes con TAB I, comparado con el tratamiento convencional. Perspectiva: tercer pagador en Colombia. Horizonte temporal: 1 año. Se construyó un árbol de decisión, con las probabilidades de recaída y los costos asociados de las dos alternativas evaluadas: la atención convencional y la adición del SFT. Los datos de efectividad se tomaron directamente del ensayo clínico randomizado EMDADER-TAB-I, específicamente se utilizó como medida efectividad la probabilidad de mantener al paciente eutímico durante un año. El macrocosteo se realizó con información del mercado y de bases de datos utilizadas como referencia en Colombia. **RESULTADOS:** Los resultados del modelo indican que el SFT es una estrategia dominante sobre la atención convencional, siendo menos costosa (delta costos directos – 58.35 U$) y más efectiva (delta de efectividad 0,1518). Se pueden generar ahorros para el sistema de 396.95 U$ al año por paciente con TAB. Se realizaron dos análisis de sensibilidad; el primero determinístico de una vía, con el costo del SFT como variable incertidumbre y el segundo probabilísticos de todo el modelo. Se confirmó la robustez de los resultados. **CONCLUSIONES:** El SFT, como tecnología que se

adiciona a la atención habitual, resultó ser costo efectivo desde la perspectiva del tercer pagador. La disminución de las recaídas y por ende de las hospitalizaciones ofrece un ahorro para el sistema.

MENTAL HEALTH - Patient-Reported Outcomes & Patient Preference Studies

PMH9: INDIVIDUAL AND SOCIETAL BURDEN OF NON-ADHERENCE TO ANTIDEPRESSANTS IN BRAZIL

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OBJECTIVES: The World Health Organization estimates that depression affects 350 million people worldwide and is the leading cause of disability. Although efficacious and cost-effective treatments are available, non-adherence is common and one of the most significant issues for successful treatment. Medication-adherent patients have almost three times greater odds for positive outcomes than patients with low adherence; poor adherence leads to quality of life decrements, mental health deterioration and increased costs, with indirect cost as the major impacting cost. Due to a lack of Brazilian data, this study investigates the association between adherence and burden of depression in the Brazilian population. **METHODS:** Data were from the 2011-2012 Brazil National Health and Wellness Survey (NHWS), an internet-based survey from a representative sample of adults stratified by age and gender. Out of 24,000 respondents, 2,760 (12%) reported a diagnosis of depression and 1,487 (6%) having a prescription medication for depression (Rx). Adherent respondents – high/medium adherence on the Morisky Medication Adherence Scale (MMAS-4) – were compared to the non-adherent on severity (PHQ-9), sociodemographics, health characteristics, health-related quality of life (SF-36), work productivity and activity impairment (WPAI) and healthcare resource use (physician, hospital and emergency visits). **RESULTS:** Non-adherent respondents (79%), compared to adherent respondents, were more severe (22% vs. 17% with PHQ-9 score ≥ 15); had lower Mental Component Summary (MCS: 33 vs. 36); lower health utilities (SF-6D: 0.59 vs. 0.60); higher presenteeism (42 vs. 37); and their satisfaction with medication was lower (4.9 vs. 5.3) (All $p<0.05$). About 33% of both groups were participating in psychotherapy and showed no significant difference in Physical Component Summary (PCS); absenteeism; and healthcare resource use.**CONCLUSIONS:** In this real-world study for Brazilian patients with depression, adherence demonstrated an important relationship on patients' outcomes to medication satisfaction and productivity, being an important key to successful treatment.

PMH10: HEALTHCARE ACCESS DIFFERENCES BETWEEN PUBLIC AND PRIVATE INSURANCE COVERAGE AMONG PATIENTS WITH DEPRESSION IN BRAZIL

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OBJECTIVES: Public and private healthcare systems in Brazil differ in focus and regulations for disease management, especially mental health. The aim of this study was to assess differences between privately and publicly insured patients in access to care, as well as differences in mental health, work productivity impairment, and healthcare resource utilization among patients diagnosed with depression. **METHODS:** The 2014 Brazil National Health and Wellness Survey (N=9,082), a self-reported, cross-sectional survey representative of the adult population, provided data. Access outcomes included physician diagnosis of depression, visits to psychiatrists, and visits to psychologists in the past six months. Other outcomes included work impairment due to health using the Work Productivity and Activity Impairment questionnaire and depression severity according to the Patient Health Questionnaire. Patients with private insurance were compared to patients with only public insurance with chi-square tests; generalized linear models were used to adjust outcomes for covariates.**RESULTS:** Overall, 11% (n=990) of the sample reported a depression diagnosis. Diagnosis was more common among those with private than public insurance (12.5% vs. 9.3%, $p<0.001$), a pattern that remained after controlling for covariates (OR=1.4, $p<0.001$). Visiting a psychiatrist (OR=1.7) or a psychologist (OR=1.8) was also more common with private insurance (both $p<0.001$). Among those diagnosed with depression, severity was lower among those with private insurance (mean 10.8 vs. 11.9, $p=0.026$). Employed patients with depression with private insurance missed more work due to health (14.3% vs. 8.0%, $p<0.01$), while the levels of health-related impairment while at work, overall work impairment, and activity impairment were not significantly different. **CONCLUSIONS:** Private insurance appears to be associated with more access to depression care as well as less severe depression among depression patients. More work missed among privately insured patients warrants further study, and may be due to differences not included here, such as type of employment.

MENTAL HEALTH - Health Care Use & Policy Studies

PMH11: USO DE RECURSOS MEDICOS EN LA INTERVENCION DE EXAMENES DE TAMIZAJE Y TRATAMIENTO DE PACIENTES CON PROBLEMAS Y TRASTORNOS DE SALUD MENTAL 2012-2013

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OBJECTIVOS: Estimar el uso de recursos médicos en la intervención de exámenes de tamizaje y tratamiento de pacientes con problemas y trastornos de salud mental 2012-2013 **METODOLOGÍAS:** Se utilizó la metodología de uso de recursos médicos en referencia al recurso humano, materiales e insumos médicos, medicamentos y equipamiento; considerando la asignación presupuestal

en la intervención de exámenes de tamizaje y tratamiento de pacientes con problemas y trastornos de salud mental 2012-2013. en el ámbito de Presupuesto por Resultados (PpR). Contrastándose el uso de recursos médicos versus el indicador de desempeño del programa: Violencia familiar tomado de la Encuesta de Demografía y salud familiar (ENDES) 2012-2013. **RESULTADOS:** El uso de recursos humano en la intervención del 2012- 2013 aumento de US**$**1,341,478 a US**$**1,796,384, el material e insumo medico disminuyo de US**$**134,302 a US**$**70,466, en medicamentos disminuyó de US**$**54,015 a US**$**12,899, en equipos disminuyo de US**$**40,440 a US**$**1,126, Para el año 2012 el Porcentaje de Mujeres que sufrieron agresión física fue de 12.9, Para el año 2013 Porcentaje de Mujeres que sufrieron agresión física fue de 12.1 **CONCLUSIONES:** La priorización en el presupuesto del uso de recurso humano en la intervención de exámenes de tamizaje y tratamiento de pacientes con problemas y trastornos de salud mental 2012-2013 ha tenido buenos resultados por lo que se debe tener mejor calidad de gasto en este recurso

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PMH12: COSTS OF RELAPSE OF SCHIZOPHRENIA FOR COLOMBIAN HEALTH SYSTEM

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Schizophrenia is a chronic, severe, and disabling mental disorder that significantly affects a person's thought processes and emotional responsiveness. People with schizophrenia have a relatively high utilization rate of health care and mental health services. **OBJECTIVES:** To quantify the cost of schizophrenia relapse in Colombia from the perspective of the third payer. **METHODS:** A cost of disease study was performed including direct, indirect and transference costs of relapses in schizophrenia. Bottom-up and top down methodologies were used to obtain direct costs consumed by this population. Validation of clinical criteria took place with local KOLs for epidemiological data and resoureces estimation. Burden of disease was calculated using Disability Adjusted Life Years. The impact on the local economy was also included by obtaining transference costs. **RESULTS:**There is an estimation of 714,927 people living with schizophrenia in Colombia. The prevalence rate is 1.5%. Compared to other chronic conditions, onset of schizophrenia typically occurs at between 20 and 30 years. This study estimated that a total of 150.135 patients experienced some episodes of relapse in 2014. This corresponds to 21% of patients with schizophrenia. This study found that the total potential avoidable direct healthcare costs of relapse in Colombia were COP$ 145´425.137 (US$66, 1 million). Total indirect costs were estimated to be COP $ 28.882 million (US$ 13.1 million) over a 12 month period. There were 5.540 people not employed due to relapse which resulted in a loss of productivity of $COP 27.499 million (US$ 12.5 million). **CONCLUSIONS:** Colombian decision makers in health could largely benefit by controlling relapses for these types of patients. This study is one of the first approaches at quantifying the impact of the disease and its relapse. Policy measures should consider this data for addressing mental health in a systematic and conjoint approach.

RESPIRATORY-RELATED DISORDERS - Clinical Outcomes Studies

PRS1: EVALUATION ANALYSIS OF SMOKING POPULATION IN ULAANBAATAR

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OBJECTIVES: 1. To study health effect of smoking by questionnaires and tests. 2. To study by comparing smoking population's function of the lung with non-smoker's function of the lung. **METHODS:** 1201 people has participated for the research study and they were 20-39 years of age, and older than 40 years old, also study has taken in Ulaanbaatar at the same time. Research study included 79 questions from "Adult core questionnaire" study of chronic respiratory diseases in the Asia-Pacific and spirometer analysis has done too. **RESULTS:** 1. The smoking population by age and gender in Ulaanbaatar. AGE Male Smoking/%/ Female Smoking/%/ 20-29 194 75.5 161 19.4 30-39 121 79.3 134 28.4 40-49 153 78.4 152 24.4 **CONCLUSIONS:** Research study shows that 49.4% of total population and 76.9% of males, 21.4% of females have been smoking for their lives with some circumstances in Ulaanbaatar. Also study shows that 30-39 years old, 70 years old females are smoking more than other ages particularly. For males smoking is in equal level for all ages. Function of lungs has changed depending on smoking and total years of smoking.

PRS2: FLUTICASONE PROPIONATE VERSUS BUDESONIDE OR BECLOMETHASONE AS MONOTHERAPY TREATMENT FOR ASTHMA PATIENTS - A SYSTEMATIC REVIEW

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OBJECTIVES: compare the efficacy and the safety of fluticasone propionate in the management of moderate to severe asthma in adults and children to the inhaled corticosteroids currently available in the public health care system in order to present an alternative therapy to the Brazilian government. **METHODS:** a systematic review of the MEDLINE, the Cochrane Library and Centre for Reviews and Dissemination (CRD) databases was conducted until September 2014, including randomized clinical study and systematic reviews about comparison between fluticasone propionate and budesonide or beclomethasone, not associated with other medications. There was no age limit and the assessed endpoint was pulmonary function through morning and evening Peak Expiratory Flow Rate, Forced Expiratory Volume in one second, exacerbation and adverse events. The quality of the studies was measured by Grades of Recommendation, Assessment, Development and Evaluation. **RESULTS:** there were 788 articles identified in MEDLINE, 231 in The Cochrane library and 46 in CRD, among all of these, 259 were duplicates, remaining 806 to title analysis. In the final analysis, 21

articles were included – 3 systematic reviews and 18 randomized clinical studies. All systematic reviews showed a strong recommendation in favor of the new technology and high methodological quality. Among the clinical studies, 9 of them compared fluticasone propionate to beclomethasone and the others 9 to budesonide. The study results showed no statistically significant difference between the compared medicines. According to the results, fluticasone propionate is effective and well tolerated for the treatment of moderate to severe asthma, in adults and children, as well as beclomethasone and budesonide. **CONCLUSIONS:** from this perspective, the inclusion of fluticasone propionate in the Brazilian Clinical Protocol and Therapeutic Guidelines could represent an extension of the therapeutic arsenal, especially, for the pediatric population that have few options of treatment. Funding for this study was provided by GlaxoSmithKline, study HO-14-15763.

PRS3: OUT HOSPITAL DRUG CONSUMPTION IN THERAPY OF OBSTRUCTIVE PULMONARY DISEASE IN SERBIA IN THE PERIOD FROM 2007 TO 2012

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OBJECTIVES: Non infectious chronic diseases become one of the most frequent cause of morbidity all around the world and they are results of interactions between man and his environment. This group of diseases includes also chronic obstructive pulmonary disease (COPD), which explains why medications for the treatment of this disease take a large part in the consumption. The aim of this study was to analyze the consumption of medications in COPD in Serbia and in Norway in period from 2007 to 2012. **METHODS:** The data about the use of medications in Serbia were taken from the Agency for Drugs and Medical Devices of the Republic of Serbia. The data about the use of medications in Norwey were taken from official website of the Norwegian healthcare system. **RESULTS:** Total consumption of medications for the treatment of respiratory diseases in Serbia from 2007 to 2012 was lower than the comnsumption of the same medications in Norway in the same time of period. The utilized medications of R group in both countries was very uneven in this period of time. Between the subgroups, the most frequently used medications were those for the chronic obstructive pulmonary disease (R03). **CONCLUSIONS:** The consumption of medications in Serbia from 2007 to 2012 was higher than in Norway. While analysing the consumption of medications we can make conclusion that the structure of the utilized medications in Serbia is not appropriate and is not similar to the farmacoterapeutic practice in well developed Norway. This research was supported by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina project No 114-451-2458/2011 and by Ministry of Science, Republic of Serbia, project no 41012

RESPIRATORY-RELATED DISORDERS - Cost Studies

PRS4: PUBLIC HEALTH AND ECONOMIC IMPACT OF 13-VALENT PNEUMOCOCCAL CONJUGATE VACCINE (PCV13) IN PUBLIC AND PRIVATE SYSTEM VERSUS PPSV23 AND NO VACCINATION IN OLDER ADULTS

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OBJECTIVES: Pneumococcal disease is a public health concern worldwide. This study evaluates the public health and economic impact of 13-valent pneumococcal conjugate vaccine (PCV13) vaccination in Brazilian adults aged ≥50 years. **METHODS:** A cohort model with a Markov-type process depicting expected risk, consequences and costs of pneumococcal disease was developed. PCV13 effectiveness was based on data from CAPiTA; the 23-valent polysaccharide vaccine (PPSV23) effectiveness was based on published literature. Pneumococcal disease rates were based on data from DATASUS. Outcomes, direct and indirect costs (in BRL) were evaluated from a Brazilian public (n= 20,228,045) and private (n=11,396,682) payer perspective over a 5 year time horizon. **RESULTS:** From a public payer perspective, vaccination with PCV13 versus PPSV23 avoided 676,031 PD cases, 853 deaths with BRL 2,32 million cost saving. An expected 696.970 PD cases and 29.644 deaths would be avoided for PCV13 versus no vaccine 2,16 million cost savings. From a private payer perspective, vaccination with PCV13 versus PPSV23 avoided 410,302 PD cases and 1,074 deaths with a 1.27million cost-savings. An expected 420,159 PD cases and 18,482 deaths would be avoided for PCV13 versus no vaccine with a 1.69 million cost-savings. **CONCLUSIONS:** PCV13 prevents more pneumococcal disease cases and deaths than PPSV23 or no vaccine and is expected to save economic resources (direct and indirect) from a private perspective, and cost-effective from a public perspective.

PRS5: COSTO DE TUBERCULOSIS EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos de la Tuberculosis (TBC) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes afiliada al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia.**RESULTADOS:** La cohorte hipotética de TBC es de 13,808 personas para el año 2014 (Incidencia de TBC Pulmonar: 0.11%, incidencia de TBC Extrapulmonar: 0.02%, incidencia de TBC

con complicaciones: 0.01%, incidencia de TBC Multidrogoresistente: 0.0036%). El costo total para TBC es de 27,443,865 dólares correspondiendo para TBC Pulmonar 23,666,252 dólares, TBC Extrapulmonar 1,501,742 dólares, TBC con complicaciones 935,552 dólares y para TBC Multidrogoresistente es de 1,340,319 dólares. El costo total correspondiente a diagnóstico es 1,302,884 dólares (4.7%), tratamiento 24, 205,776 dólares (88.2%) y para seguimiento 1,935,206 dólares (7.1%). El costo fijo correspondió a 12,538,706 dólares (45.7%) y el costo variable a 14,905,159 dólares (54.3%). **CONCLUSIONES:** El costo anual total para Tuberculosis en el Perú se estimó en 27,443,865 dólares. Este monto representa el 14.1% del presupuesto ejecutado el año 2014 en el Programa Presupuestal 016 TBC –VIH/SIDA.

PRS6: COST OF ILLNESS (OUT OF POCKET COSTS PAID BY PATIENT) FOR T.B IN QUETTA CITY, PAKISTAN

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OBJECTIVES: The objective of study is to measure the cost of illness (out of pocket costs paid by patients) for T.B in Quetta city, Pakistan. **METHODS:** Cross sectional study was performed on TB patient in Fatima Jinnah chest hospital Quetta. The TB patients who were registered in hospital were interviewed to determine the out of pocket cost paid by TB patients by using standardized data collection tool. The descriptive statistics was used to present the data. All analyses were performed using SPSS 20.0. **RESULTS:** The total of 70 TB patients were agree to participate in the study. Majority (62%, n=44) were females with rural residency 51.4%, n=36). Majority of patients had monthly income were 8000-15000. The total average out of pocket cost was Pk. Rs. 11,685 per month for an individual patient. In addition, it was calculated that a patient spend Pk. Rs. 292 for diagnostic tests including chest x-ray, additional medicine purchased were of Pk. Rs. 1465, travel cost were Pk. Rs. 3,485 , special food cost were Pk. Rs. 2,128 rupees accommodation cost were Pk. Rs. 3,825 rupees, & the other cost were Pk. Rs. 490. It is worth mentioning here that all the medication and other treatment cost is paid by the government. **CONCLUSIONS:** The study concluded that although government paid all the medication and other treatment cost for TB patients, yet patient had to bear a high amount of money from his pocket which put additional burden to the poor patient suffering with a disease like TB.

PRS7: BURDEN OF COST IN BRONCHIOLITIS OBLITERANS SYNDROME (BOS): PREDICTIONS FOR THE NEXT DECADE

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OBJECTIVES: Transplanted lungs present much higher rates of complication and acute rejection than in other solid organ transplants, both immediately following surgery and throughout the patient's life. The most common life-threatening risk following lung transplantation is a disease called bronchiolitis obliterans syndrome (BOS), a late complication when compared to early transplant-related mortality. This disease has been found to occur in approximately 50% of all lung transplants, but can also result (with 5.5% incidence) from stem cell transplantation. The majority of such transplant survivors will have been in gainful employment prior to surgery and yet half will live with or be at risk for developing BOS. There are more than 10,000 people living with a transplanted lung. The delayed-onset nature of BOS means that its prevalence overshadows its incidence. Our objective was to estimate this burden of cost from the human capital perspective, projected for the decade ahead. **METHODS:** Transplant statistics were evaluated using data from both the United Network for Organ Sharing (UNOS) and Leukemia and Lymphoma Society (LLS). Prevalence of BOS, time delay to onset, treatment costs, family and caregiver costs, average wage assumptions, and age-specific opportunity costs were evaluated from published sources, adjusted for inflation and projected over a ten-year time horizon. **RESULTS:** BOS presents a burden on the success measures of many settings. Over the next decade, 14,771 future BOS patients are estimated to accrue 301,658 years of lost wages. This cumulative lost workforce could cost society $13,540,876,856 ($13.5B). Assuming employability prior to BOS, this cost is markedly ($13.5B vs. $1.6B) more than the estimated ten-year cost of treatments, including diagnostics, drugs and devices. **CONCLUSIONS:** BOS will continue to present a substantial economic burden to society the world over that is far beyond its healthcare cost, due to the foreshortened exit of thousands from the paid workforce.

PRS8: TRATAMIENTO AMBULATORIO VERSUS HOSPITALARIO RELACIONADO A AGUDIZACIONES EN PACIENTES CON ASMA DESDE UNA PERSPECTIVA INSTITUCIONAL PUBLICA MEXICANA

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OBJECTIVOS: Estimar y comparar el uso y frecuencia de recursos médicos directos de atención de las agudizaciones por Asma a nivel ambulatorio y hospitalario, desde la perspectiva del Instituto Mexicano del Seguro Social (IMSS). **METODOLOGÍAS:** De enero a diciembre del 2013, se realizó un estudio retrospectivo para estimar el costo médico directo de las agudizaciones de Asma. Tanto el patrón de tratamiento, como la categorización de las agudizaciones fueron aquellos establecidos por la institución (guía de tratamiento IMSS). Los registros de pacientes fueron obtenidos de bases electrónicas públicas para una cohorte de pacientes con agudizaciones de Asma. El tratamiento ambulatorio y hospitalario fueron los criterios para establecer el uso y frecuencia de recursos médicos, incluyendo consultas médicas familiares y de especialidades, consultas de urgencia, hospitalizaciones, estudios de laboratorio y gabinete y uso de medicamentos. Los costos unitarios fueron obtenidos de tabuladores y compras públicas (2014 IMSS). Mediante un análisis estadístico se obtuvo la media en costos. **RESULTADOS:** En 2013, se reportaron 7,591 episodios de agudización de Asma, de los cuales 5,274 corresponden a pacientes hospitalizados. Se observó un promedio de 4.5 días de estancia hospitalaria en el horizonte estudiado. El costo anual promedio de tratamiento de las agudizaciones en cuidado hospitalario y ambulatorio fue de

$96,223 y $20,274 respectivamente. Un análisis detallado de costos del cuidado hospitalario versus el cuidado ambulatorio demostró un aumento significativo en el uso de medicamentos (70%) y consultas de especialidades (50%) entre otros. **CONCLUSIONES:** En el tratamiento de episodios de agudización en Asma, el costo agregado por año del cuidado hospitalario versus el ambulatorio se estimo es 79% mayor. Reducir el riesgo de los sufrir estos episodios con la elección correcta de tratamiento sería relevante para las instituciones Mexicanas.

PRS9: EVALUACION ECONOMICA DE LOS PRINCIPALES ESTEROIDES INTRANASALES UTILIZADOS PARA EL TRATAMIENTO DE PACIENTES PEDIATRICOS CON RINITIS ALERGICA EN COLOMBIA

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OBJECTIVOS: El objetivo de este estudio fue comparar la costo-efectividad del furoato de mometasona (FM) en comparación con el dipropionato de beclometasona (DB) en pacientes pediátricos con rinitis alérgica (RA) en Colombia. **METODOLOGÍAS:** Se desarrolló un árbol de decisiones para estimar la costo efectividad del FM en comparación con el DB para el tratamiento de pacientes pediátricos con RA en un período de tiempo de 12 meses. Los datos de efectividad se obtuvieron de un estudio publicado en el que los autores realizaron una revisión sistemática de la literatura. Los datos de costos se obtuvieron de las cuentas médicas de un hospital pediátrico, y del manual nacional de precios de medicamentos. La perspectiva del estudio fue el del Sistema de Salud colombiano. Los desenlaces fueron tres medidas de efectividad y seguridad, resumidos en un índice terapéutico (IT) **RESULTADOS:** Para el análisis de caso base, el modelo mostró que comparado con el DB, el tratamiento con FM se asoció con menores costos de tratamiento (US$229.78 vs. 289.74 costo promedio por paciente en 12 meses) y una mayor mejoría en el IT (0.9724 vs. 0.8712 puntos en promedio por paciente en 12 meses), considerándose por tanto una estrategia dominante. **CONCLUSIONES:** El presente estudio muestra que en Colombia, comparado con el DB, el tratamiento con FM para pacientes pediátricos con rinitis alérgica es una estrategia dominante debido a que mostró una mayor mejoría en un IT que refleja efectividad y seguridad, a un menor costo de tratamiento.

PRS10: COSTO - EFECTIVIDAD DE LA COMBINACION DE GLICOPIRRONIO/INDACATEROL VS. SALMETEROL/ FLUTICASONA (COMBINACION DE DOSIS FIJA – CDF) EN EL MANEJO DE LOS PACIENTES CON ENFERMEDAD PULMONAR OBSTRUCTIVA CRONICA (EPOC) EN COLOMBIA (SUR AMÉRICA)

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OBJECTIVOS: Estimar la costo efectividad de glicopirronio/indacaterol, frente a Salmeterol + fluticasona, para el tratamiento de la Enfermedad Pulmonar Obstructiva Crónica (EPOC) desde la perspectiva del sistema de salud colombiano. **METODOLOGÍAS:** Un modelo de microsimulación fue diseñado para estimar los beneficios clínicos y económicos asociados con la combinación glicopirronio/indacaterol versus Salmeterol + fluticasona desde la perspectiva del sistema de salud colombiano. Los resultados de efectividad fueron medidos en años de vida ajustados por calidad y la eficacia fue basada sobre la mejoría inicial en el Volumen Espiratorio Forzado en el primer segundo (VEF1), tomado de los resultados de los estudios ILLUMINATE(5) and TORCH(12). Los ciclos de duración fueron trimestrales en un horizonte de tiempo a 5 años. La tasa de descuento utilizada para costos y beneficios fue del 5% anual. Los costos de la enfermedad se calcularon a partir de la revisión de historias de los pacientes atendidos en una institución de salud de Bogotá y los costos de los medicamentos se tomaron de la base de datos SISMED [11,12]. **RESULTADOS:** Bajo un horizonte de tiempo a 5 años con cortes a uno y tres años los años de vida ajustados por calidad de indacaterol/glicopirronio frente a salmeterol/fluticasona fueron de 0,001, 0,013 y 0,038 respectivamente con un costo incremental de - $116.747, $13.328 y $ 302.834 y una relación de costo/efectividad incremental (ICUR) de $-199.881.605, $1.039.394 y $ 8.028.849, siendo indacaterol/glicopirronio una alternativa costo ahorradora en el primer año y costo - útil en el tercer y quinto año desde la perspectiva del sistema de salud colombiano. **CONCLUSIONES:** Los resultados muestran que la única combinación LABA/LAMA disponible en el mercado colombiano (indacaterol/glicopirronio) es costo – útil para el manejo de los pacientes con la EPOC que representan una carga económica importante para el sistema de salud colombiano.

PRS11: A PROSPECTIVE PRESCRIPTION COST ANALYSIS OF ASTHMA MEDICATION

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OBJECTIVES: To review patient's prescriptions and calculate direct cost for the treatment and management of asthma **METHODS:** A prospective cross-sectional detailed review of 180 prescriptions written by 6 doctors was conducted at respiratory department of hospital pulau pinang, Malaysia. Medication price was confirmed from the hospital formulary. Interview with the key personals were conducted to identify activities of each service provided to asthma patients. This was followed by determination of time taken to complete each activity using stopwatch. The duration was captured 15 times for each for three alternate days and summarized as the mean time (minutes) for each activity. The cost of each employee per single activity was obtained by multiplying the mean time (minute) spent by that employee doing a specific activity by his/her salary per minute**RESULTS:** A total of 6 different classes of medications were prescribed to 180 asthma patients. β agonist was the most prescribed class of asthma medication that included Salbutamol 72 (39.8) and albuterol 20 (11) followed by Corticosteroids that included budisonide 59 (32.8%), prednisolone 16 (8.8%) and fluticasone 11 (6.1%). Fifty one (28.3%) units of budisonide/formoterol combination medication were prescribed followed by fluticasone/salmeterol 40

(22.2%). A total of RM 10610.79(USD) medication were prescribed to 180 asthma patients with average cost of RM 59.08 per patient. The combination medication of budisonide/formoterol RM.5253 (USD) made the majority of total cost of asthma medication. Spirometry was performed for all 180 patients at every hospital visit that costed RM 5400.00. The cost of services provided by doctors and nursing staff for 180 asthma patients for single visit was RM 1198.8 and RM 331.2 respectively **CONCLUSIONS:** Combination medication adds a substantial cost to over all asthma cost. Careful selection of asthma pharmacotherapy can greatly reduce medication cost without compromising on treatment outcomes

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PRS12: COST-EFFECTIVE EVALUATION OF PIRFENIDONE FOR TREATING IDIOPATHIC PULMONARY FIBROSIS IN MEXICO

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OBJECTIVES: Idiopathic pulmonary fibrosis is a chronic, progressive, and fatal lung disease that is characterized by irreversible loss of lung function. Pirfenidone is an oral antifibrotic therapy for the treatment of idiopathic pulmonary fibrosis with significant effects on reducing disease progression and exacerbations. The objective of this analysis is developing a cost-effectiveness analysis comparing pirfenidone vsthe current pharmacological alternatives available. **METHODS:** Pirfenidone is compared to Prednisone, azathioprine, and N-acetylcysteine in a cost-effectiveness analysis. A Markov model was developed to estimate incremental costs and benefits in this population of patients using a 1 year time horizon. The model comprised the following mutually exclusive health states: free progression, progression (defined as the time to the first occurrence of exacerbation) and death. Transition probabilities were obtained from clinical trials and the scientific literature. Disease costs and exacerbation costs derived from the IMSS' Groups Related to Diagnosis (GRD). Costs were converted to UD dollars (1 USD = 15.42 MXN). The perspective of the analysis was that of the Mexican Social Security Institute (IMSS). **RESULTS:** Pirfenidone offers statistically significant improvements in forced vital capacity, 6 minute walk distance (6MWD) and progression free survival. Patientes treated with Pirfenidone showed a 51.8% change in the predicted forced vital capacity which reduced disease progression in 234% compared to Prednisone, azathioprine and N-acetylcysteine at a cost of $121,293 USD vs $154,582 USD respectively. When measuring exacerbarions, pirfenidone group avoided 14.3 exacerbations for a saving of 422,472 USD. **CONCLUSIONS:** Using pirfenidone for treating idiopathic pulmonary fibrosis is a cost-effective alternative versus the current treatments available. The results also suggests that the economic benefit of ulipristal in avoiding exacerbations can lead to important savings not only for the IMSS but for the Mexican Health System as well.

PRS13: EVALUACION ECONOMICA DE TRES TERAPIAS PARA LA ENFERMEDAD PULMONAR OBSTRUCTIVA CRONICA EN CHILE. ANÁLISIS DE COSTO UTILIDAD

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OBJECTIVOS: La Enfermedad Pulmonar Obstructiva Crónica (EPOC) es la octava causa de muerte en Chile y su curso es progresivo y con frecuentes exacerbaciones. El objetivo de este trabajo fue determinar la relación de costo efectividad incremental para 3 alternativas de tratamiento de la EPOC disponibles en Chile desde la perspectiva del sector público de salud. **METODOLOGÍAS:** Los tratamientos que se compararon fueron QVA149+Budesonida, Salmeterol+Fluticasona+Tiotropio y Salmeterol+Ipratropio+Budesonida. Se elaboró un modelo de micro simulación por paciente individual. El número de exacerbaciones experimentadas por cada paciente fue uno de los determinantes para la generación de nuevas exacerbaciones y para la progresión entre los distintos estados de la enfermedad. Los costos fueron medidos en pesos chilenos y las utilidades en años de vida ajustados por calidad (AVACs). Tanto las utilidades, la efectividad y otros datos epidemiológicos relevantes para el modelo fueron obtenidas de la literatura nacional e internacional. Los costos fueron obtenidos de las canastas del programa con Garantías Explícitas en Salud y de las canastas de la modalidad de atención institucional del seguro público de salud (FONASA). Se midieron tanto costos directos como indirectos. El horizonte de evaluación fue de por vida. Costos y efectividades fueron descontados a una tasa del 3% anual. **RESULTADOS:** Los costos y los AVACs obtenidos con cada alternativa fueron $16.985.049 y 17,05 para QVA149+Budesonida; $19.896.125 y 16,37 para Salmeterol+Fluticasona+Tiotropio y $25.667.991 y 15,84 para Salmeterol+Ipratropio+Budesonida. QVA149+Budesonida resultó la alternativa dominante frente a las otras dos y este resultado se mantuvo en el análisis de sensibilidad efectuado. **CONCLUSIONES:** La terapia con QVA149+Budesonida resultó ser más efectiva y menos costosa, y logra generar la menor cantidad de eventos de exacerbación respecto a las otras terapias. Este resultado es robusto, ya que no varía con el análisis de sensibilidad. El modelo utilizado logró capturar la complejidad de la enfermedad.

RESPIRATORY-RELATED DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PRS14: IMPACT OF A PHARMACOTHERAPEUTIC FOLLOW-UP PROGRAM ON THE COST-MONTH-PATIENT, STRATIFIED BY RISK-PHARMACOLOGICAL TYPE

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BACKGROUND: Several studies reported that skip-doses and a inhalation technique inadequate are the most prevalent risks in patients diagnosed with chronic obstructive pulmonary disease (COPD), such risks are associated with increased health costs, mainly due to increased emergency room visits, hospitalizations and graduation lines pharmacological therapeutic failures. **OBJECTIVOS:** Determine the cost-month-patient average stratified by type of risk-pharmacological, after evaluation by a pharmacotherapeutic monitoring program. **METODOLOGÍAS:** Type of study: analysis before and after. Patients diagnosed with COPD.

Observation period: January 2012 to June 2014. (N: 108). risk-pharmacological: Incorrect inhalation technique and skip-doses. Outcome of interest: the average cost was calculated cost-month-patient before and after the education provided by the Pharmaceutical, stratified into two groups, those patients with risk-pharmacological and those who have not. **RESULTADOS:** cost per patient: 142.2 [99.7 to 246.6] cost of a patient without risk-pharmacological 119.3 [94.4 to 199.4] cost of a patient with risk-pharmacological 186.8 [131, 2-314.8] cost of a patient who skip-doses 208.5 [157.4 to 577.1] cost of a patient with incorrect inhalation technique 146.9 [115.4 to 199.4], cost before Pharmacotherapy follow-up, 169.9 [115.4 to 251.8] and after the pharmacotherapy follow 150.7 [104.9 to 278.1], difference to 12.7%. (The cost it is reported as USD, 1USD = 1.906,9COP, median [interquartile range]). **CONCLUSIONES:** The patients with risk-pharmacological showed a higher cost-month. The average cost-month-patient was lower after the education provided by the Pharmacotherapy follow-up program.

RESPIRATORY-RELATED DISORDERS - Health Care Use & Policy Studies

PRS16: REVISION SISTEMÁTICA DE ESTUDIOS DE COSTO EFECTIVIDAD DE INTERVENCIONES SANITARIAS PARA LA CESACION DEL HÁBITO TABÁQUICO

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OBJECTIVOS: Determinar si la consejería breve, terapia de reemplazo de nicotina y/o las terapias farmacológicas con vareniclina o bupropion son intervenciones costo-efectivas para la cesación del hábito tabáquico.**METODOLOGÍAS:** Se realizó una búsqueda sistemática de la literatura en MEDLINE y CRD, limitada desde el 2004 al 2014. La búsqueda se complementó mediante la revisión manual de las referencias de los artículos incluidos y revisión de páginas web de agencias de Evaluación de Tecnologías Sanitarias. Se incluyeron estudios de costo efectividad y costo utilidad en español, inglés y portugués. Tanto la selección como la extracción de los datos se realizó simultáneamente por dos investigadores de forma independiente. La calidad metodológica de los estudios incluidos fue evaluada a través del check list de Drummond et al .2005.**RESULTADOS:** La búsqueda sistemática arrojó 606 artículos de los de los cuales 24 cumplieron los criterios de inclusión y fueron incluidos como evidencia. No se identificaron artículos mediante la búsqueda dirigida. Los países donde se realizaron las evaluaciones económicas incluyeron todos los continentes. Veinte estudios utilizaron modelos de Markov, de los cuales catorce fueron BENESCO (benefits of smoking cessation on outcomes), uno fue un árbol de decisión y el resto utilizó modelos de simulación para proyectar los costos y los efectos de las estrategias comparadas, en un horizonte temporal que abarcó principalmente la sobrevida de los pacientes. La mayoría de los estudios se realizaron bajo la perspectiva del sistema de salud. Los valores monetarios corresponden a años que fluctúan entre el 2000 y 2011. Si bien el costo de la vareniclina fue mayor a las otras intervenciones, los costos médicos directos para tratar las comorbilidades relacionadas con el tabaco fueron más bajos en relación a los otros comparadores. **CONCLUSIONES:** Vareniclina resultó ser una estrategia altamente costo efectiva en relación a consejería breve, terapia de reemplazo de nicotina y bupropion.

SYSTEMIC DISORDERS/CONDITIONS - Clinical Outcomes Studies

PSY1: CHARACTERISTICS AND OUTCOMES OF PATIENTS WITH DENGUE VIRAL INFECTION DURING THE HOSPITALIZATION AT TERTIARY CARE HOSPITAL

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OBJECTIVES: To describe clinical characteristics and outcomes of patients with dengue viral infection during the course of hospitalization **METHODS:** During the period of three years (2011-2013) all the dengue suspected patients according to dengue suspected symptoms list were included in this study. Clinical information and laboratory parameters were collected from hospital database by using predefined data collection form. DVI was confirmed by positive IgM capture ELISA or RT-PCR **RESULTS:** Out of total 377 selected patients, 296 confirmed DVI (82% IgM positive, 7% IgG positive, 11% both) patients were included in this study. The mean age of the patients were 38.7 ± 11.1 years and most of them were male (79%). The fever (100%) were present in all patients while other common clinical presentations were myalgia (92%), abdominal pain (54%), nausea (73%), and rigors (69%). According to WHO classification, dengue fever (DF) was present in 263 (89%) patients while dengue hemorrhaging fever was observed in 31 (11%) patients. Dengue shock syndrome (DSS) was found in 2 patients only. Clinical complications were observed in most of the patients that were acute kidney failure (14.1%), hepatitis (67%), respiratory failure (4.4%), seizure (2.3%), . Multiple organ failure (failure > 1 organ) was observed in 15.6% of patients. Most of clinical complications were usually associated with lower platelet count ($P = 0.05$), higher serum hepatic enzymes ($P = 0.01$) and severe forms of DVI i.e. DHF and DSS ($P < 0.05$). The mean days of hospitalization were 5.1 ± 1.6 days which were positively related with severe form of disease and number of complications present. **CONCLUSIONS:** DVI is endemic in Malaysia with potential fatal outcomes. Signs and symptoms suggestive of dengue must be known by health care professionals to initiate adequate measures in order to reduce burden of disease in terms of morbidity, mortality and heath cost

PSY2: DETERMINANTES SOCIOECONÓMICOS DE LA OBESIDAD EN ESCOLARES Y ADOLESCENTES EN COLOMBIA: UN ANÁLISIS REGIONAL

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OBJECTIVOS: Determinar los factores socioeconómicos asociados a la obesidad en la población comprendida entre 5 y 17 años, en Colombia **METODOLOGÍAS:** Estudio transversal a partir de micro-datos de la Encuesta Nacional de Situación Nutricional (ENSIN), realizada paralelamente con la Encuesta Nacional de Demografía y Salud (ENDS), para los periodos 2005 y 2010. Se calcularon índices y curvas de concentración con el fin de establecer la existencia, dimensión y sentido de desigualdad en la prevalencia de la obesidad en la población estudiada. Asimismo, se estimó un modelo probabilístico de tipo multinomial para establecer los posibles factores de mayor incidencia en la obesidad o sobrepeso. **RESULTADOS:** Colombia está en medio de una transición nutricional, en los últimos años se han alcanzado bajos indicadores de desnutrición, tanto crónica como global, sin embargo, el sobrepeso y la obesidad se encuentran en ascenso, afectando a más de la mitad de la población adulta y cerca del 17,80% (IC95% 16,80% - 18,80%) del total de niños y adolescentes. La obesidad se concentra en los niveles socioeconómicos más altos. La riqueza, las condiciones de seguridad alimentaria de los hogares, la escolaridad del jefe del hogar y la presencia de antecedentes de obesidad en la familia son los principales determinantes de la probabilidad de padecer sobrepeso u obesidad. **CONCLUSIONES:** Colombia se encuentra en etapa transicional de las condiciones nutricionales de la población. El presente estudio evidencia desigualdades a nivel regional en las condiciones nutricionales de la población, San Andrés Islas es la región del país con mayor concentración de obesidad y sobrepeso. Los problemas de obesidad presentan tendencia creciente en el tiempo, por lo que es necesario diseñar e incorporar políticas públicas con el objetivo de reducir su prevalencia, articulando los escenarios en los que habitan los jóvenes (hogar, instituciones educativas y comunidad).

SYSTEMIC DISORDERS/CONDITIONS - Cost Studies

PSY3: MATTERS OF WEIGHT: FINANCIAL BURDEN OF OVERWEIGHT AND OBESITY IN MEXICO

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OBJECTIVES: Estimate direct and indirect costs generated by eight diseases related to O&O in Mexican population for the period 1999-2023. **METHODS:** Data on diabetes, cardiovascular disorders (CVD), osteoartritis, and malignant tumors (esophagus, pancreas, breast, cervix, colo-rectal) are analyzed for 2004-2013. Cost of illness approach was used for direct cost estimates; Indirect costs are estimated by the human capital approach that includes lost income for premature death (LIPD), temporary disability subsidies (TDS), permanent disability pension (PDP) and opportunity cost for the non-medical care giver (OCC). **RESULTS:** Annual average direct costs generated by selected diseases related to O&O represented 17% of the total public medical care expenditure (0.1% of GDP) of 2013. Diabetes and CVD contributed with 80% of such costs. Annual average indirect costs represented 0.2% of GDP of 2013 and are dominated by LIPD (64%) followed by PDP (19%) and OCC (10%). **CONCLUSIONS:** Findings show the need of continue efforts to address the challenge posed by O&O for both the Mexican health care system in terms of financial sustainability and the Mexican society as a whole in terms of significant reductions in productivity in the short and midterms. Of particular relevance is the recent implementation of the National Strategy to Prevent and Control O&O and Diabetes which should be monitored and evaluated in order to document effectiveness of public policy interventions in the O&O arena for the Mexican case.

PSY4: ACROMEGALY PATIENTS WITH INADEQUATE RESPONSE TO MAXIMUM DOSE OCTREOTIDE-LAR WHO PROGRESS TO TREATMENT WITH PEGVISOMANT: ECONOMIC EVALUATION AND INCREMENTAL BUDGET IMPACT ANALYSIS FROM THE PUBLIC PERSPECTIVE TO SÃO PAULO STATE

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OBJECTIVES: This study evaluated the cost-effectiveness of pegvisomant compared to octreotide-LAR and the incremental Budget Impact Analysis (iBIA) from the public perspective in São Paulo State Health Secretariat (SHS/SP). **METHODS:** The economic evaluation assumed octreotide-LAR to be first line treatment as (recommended to acromegaly Ministry of Health Brazilian guideline). In certain clinical conditions patients who fail to achieve biochemical control will receive octreotide-LAR staggered dose (off-label use). This population was used for the analysis, and compared to a population of patients with acromegaly treated with pegvisomant. To estimate costs and treatment outcomes, a Markov model was developed, representing the control rate of patients treated with pegvisomant or maintained dose staggered octreotide-LAR. All patients entering the model who were unresponsive to the maximum octreotide-LAR dose based on the transition risk and according to control or non-control of disease, patients could transition to one of the following states: control; non-control and death (absorbing state). A time horizon of 35 years was assumed and a discount rate of 5% per annum was applied. The outcomes of interest were: "years of life" and "years living with disease control". To estimated number of SHS/SP eligible patients, the epidemiological demand method was applied that resulted in 210 patients (2015). **RESULTS:** The iBIA was estimated to increase by 24.87% of current spending, if pegvisomant is reimbursed by the government in SHS/SP. for "year of life" and "years living with disease control" were 0.46 and 1.37 years, respectively, and for pegvisomant saving BRL 313,599.84. The final result did not change; the sensitivity analysis demonstrated the model robustness. **CONCLUSIONS:** Pegvisomant is a dominant technology compared to octreotide-LAR under the SHS/SP and it may represent a feasible treatment option for patients with acromegaly in the acromegaly treatment in SHS/SP.

PSY5: BURDEN OF COST IN CHRONIC GRAFT VERSUS HOST DISEASE FOLLOWING HEMATOPOIETIC STEM CELL TRANSPLANTATION: PREDICTIONS FOR THE NEXT DECADE

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OBJECTIVES: With advances to treating acute graft-versus-host-disease (aGvHD), chronic graft-versus-host disease (cGvHD) has become a focus of morbidity following allogeneic hematopoietic stem cell transplantion. Given that cGvHD often presents years following a transplant, our objective was to estimate its burden of cost based on published estimates of incidence, morbidity, lost work time and survivorship. **METHODS:** Treatment pathways and adverse events were evaluated in terms of direct cost from published sources. Additional cost estimates for readmission and follow-up care were annualized and compared between non-cGvHD patients and grades I-IV of cGvHD over a 5 year horizon, based on studies conducted in the United States and United Kingdom. Indirect costs (or benefits) were calculated based on age-adjusted United States Census Bureau reported average wages, wage growth and the probability that with illness these would be foregone. **RESULTS:** The total burden of cost from cGvHD is far more poignant when viewing long-term and morbidity, mortality and consequent wages foregone, even as compared with the cost of transplant and normative follow-up. Relapse due to primary disease (29%) and cGvHD (22%) were reported by the literature to be the leading causes of premature mortality. This is important in the counter-factual scenario where patients might have returned to normal daily activities. With the burden of cost for cGvHD presented as a summation of direct and indirect components, aggressive upfront treatments may have a potential to reduce long-term complications and maintain the ability to return to daily functioning. From the societal perspective, an estimated $24,940,983,900.00 ($24.9B) in wages are lost from 43,750 years of foregone employment, yielding a total ten year cGvHD cost burden of $30,214,063,841.50 ($30.2B). **CONCLUSIONS:** The human capital perspective should be considered in making policy recommendations for coverage of cGvHD treatments that affect those, including Central and South American patients, who survice acute complications of allogeneic transplantation.

PSY6: COST-EFFECTIVENESS OF ROMIPLOSTIM AS FIRST-LINE PRIMARY IMMUNE THROMBOCYTOPENIA (ITP) TREATMENT IN ADULT SPLENECTOMISED PATIENTS WHO ARE REFRACTORY TO OTHER TREATMENTS AND AS SECOND-LINE ITP TREATMENT IN ADULT NON-SPLENECTOMISED PATIENTS WHERE SURGERY IS CONTRAINDICATED IN COLOMBIA

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OBJECTIVES: To conduct a cost-effectiveness analysis of romiplostim as first-line ITP treatment in adult splenectomised patients who are refractory to other treatments and as second-line treatment in adult non-splenectomised patients for whom surgery is contra-indicated vs. eltrombopag. **METHODS:** A Markov model with embedded decision tree containing three health status (platelets≥50×109/L; platelets<50×109/L; and dead) was developed from a Colombian Health Ministry perspective and evaluated at 4-week cycles over a lifetime horizon. Efficacy was characterized by initial response; mean time to response, and duration of response and was estimated from literature review. Used resources and treatment patterns were obtained by a modified Delphi panel from a group of four hematologist. Costs include drug administration, visits, laboratory tests, rescue therapy, intracranial, GI and gynecological bleeding. Social Security costs (ISS+30) are used for procedures, visits and laboratory tests; and SISMED-2014 prices for drugs. Clinical benefits and costs are discounted 5% per annum. **RESULTS:** Total expected treatment cost for romiplostim arm was $1,276,302,002 (romiplostim cost $408,991,91; subsequent treatment lines $4,612,365; rescue therapy (IVIg and IV steroids) $859,929,341; and bleedings $2,768,379) vs. $1,315,173,138 for eltrombopag arm (eltrombopag cost $191,795,316; subsequent treatment lines $5,836,389; rescue therapy $1,113,981,314; and bleedings $3,560,119). Use of romiplostim, compared with eltrombopag, increased 4.46 years response duration, prevented 4.5 bleeding episodes and 1.5 admissions over a lifetime horizon. Romiplostim proves to be the dominant approach compared with eltrombopag. **CONCLUSIONS:** Use of romiplostim in the ITP treatment pathway, compared with eltrombopag, improves clinical outcomes, by increasing and maintaining platelet count, reducing bleeding events and rescue therapy need. These benefits generate cost savings and positioning romiplostim as a dominant approach.

PSY7: SYSTEMATIC REVIEW AND COST-EFFECTIVENESS ANALYSIS OF DRUG USED IN OBESITY TREATMENT IN BRAZIL, UNDER HEALTH SYSTEM PERSPECTIVE

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OBJECTIVES: Present a systematic review of efficacy, effectiveness and safety of pharmacological treatments (sibutramine and orlistat) used in obesity treatment and performs a cost-effectiveness analysis comparing: (a) Diet; (b) diet plus sibutramine and (c) diet plus orlistat under the public health system perspective. **METHODS:** A systematic review of literature produced the estimates of co-morbidities risks and disease progression with and without the interventions. A Markov model that simulates related obesity comorbidities as chronicle heart disease and diabetes mellitus was build. Discount rate assumed was 5% and the outcome data was taken from international literature and was measured by QALY. Direct cost was calculated by the authors using data from public health system databases, as well as in related cost studies made in Brazil. PARTIAL **RESULTS:** The systematic review has initially provided results of effectiveness of the interventions. Weight loss values after one year of treatment ranged from -6,35 kg to sibutramine 15mg and -2,89kg to standard care (only Diet). All patient gain weight after intervention in a rate of 0,385kg/month (first four years), and at 1kg/year in the next years. Annual costs of co-morbidities were estimated in U$7,017.00 to infarction and U$1,335.00 to diabetes.**CONCLUSIONS:** More data will be collected, to complement this preliminary serving as input to complete de cost-effectiveness model.

PSY8: COST-MINIMISATION ANALYSIS OF DEXMEDETOMIDINE VERSUS PROPOFOL IN MECHANICAL VENTILATED PATIENTS AT ICU

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OBJECTIVES: To evaluate costs associated with the use of dexmedetomidine in comparison with conventional clinical practice in Portugal in intensive care unit (ICU) patients through a cost-minimisation and a budget impact analysis. **METHODS:** The population consisted of ICU ventilated patients requiring a mild to moderate level of sedation. Time spent at ICU was estimated based on a head-to-head published clinical trial (PRODEX) comparing the two sedatives. The time horizon was inpatient stay at ICU considering three periods: mechanical ventilation, non-mechanical ventilation and off ventilator. The analysis considered the Portuguese National Health Service perspective and only included ICU stay and sedative costs, which were extracted from Portuguese official sources (2014 prices). Sensitivity analyses were performed. **RESULTS:** The estimated mean costs per ICU patient discharge were €13,950 for dexmedetomidine and €14,711 for propofol resulting in a cost-saving of €761 per patient. Sensitivity analysis confirmed savings upon the use of dexmedetomidine ranging from €598 to €1,418. Introducing dexmedetomidine in hospitals for sedation in ICU would result in yearly savings of at least €457K for the Portuguese NHS. **CONCLUSIONS:** Dexmedetomidine reduces the duration of mechanical ventilation and is a cost-saving alternative to propofol at the ICU setting.

PSY9: COST-MINIMIZATION ANALYSIS OF THE CARBOXYMALTOSE FERRIC (I.V.) COMPARED WITH SACARATO FERRIC (I.V.) IN THE TREATMENT OF ANEMIA UNDER SUPLEMENTARY HEALTH CARE PERSPECTIVE

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OBJECTIVES: Absolute iron deficiency related to depletion of iron stores or functional iron deficiency are the main causes of anemia, which can trigger hospitalization and even mortality. International guidelines recommend intravenous (IV) iron therapy for several chronic conditions. Intravenous iron is more effective, better tolerated, and improves the quality of life to a greater extent than oral iron supplements. Ferric carboxymaltose (FCM) and iron sucrose (IS) are IV iron drugs available in the Brazilian market. Considering this scenario the purpose of the study is to perform a cost minimization analysis of FCM versus IS under the supplementary health setting. **METHODS:** Due to no non-inferiority study design comparing both IV therapies, a cost-minimization analysis was conducted. Treatment expenditures were accounted considering drugs acquisition costs and infusion related costs. Drugs ex-factory prices were obtained in official price list. Infusion fees were accessed through research conducted in 36 private hospitals distributed in service categories. In each institution the information collected was: place of infusion, materials, medical honoraries, room fee and price lists. An average patient was assumed (70kg; Hb≤10,5g/dL) which would receive a total iron dose of 1,000mg in both regimens. According to label, FCM can be administrated in a single dose whereas IS requires 5 infusions of 200 mg iron given up twice weekly. Deterministic one-way sensitivity analysis was performed. Costs were reported in Brazilian currency. **RESULTS:** Treatment cost for FCM (BRL927.69) was lower than IS (BRL 1,184.97), due to more infusions required for treatment with IS. The number and cost of the infusions were the most influential parameters in the analysis, and even with variations of ± 20% in all parameters, treatment results with FCM remained favorable. **CONCLUSIONS:** FCM represents a cost-saving option compared with other IV therapy alternative used in the management of anaemia in the Brazilian Supplementary Health System.

PSY10: COST-MINIMIZATION ANALYSES OF ADALIMUMAB COMPARED WITH SELECTIVE IMMUNOSUPPRESSIVE CYTOKINES BLOCKERS AND INHIBITORS OF TUMOR NECROSIS FACTOR ALPHA INDICATED FOR THE TREATMENT OF RHEUMATOID ARTHRITIS, PSORIASIS AND CROHN'S DISEASE IN THE PRIVATE MARKET IN MEXICO

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OBJECTIVES: To compare the cost of treating rheumatoid arthritis, psoriasis and Crohn's disease with adalimumab compared with selective immunosuppressive cytokines blockers and inhibitors of tumor necrosis factor-alpha. **METHODS:** We conducted a through systemic review of the literature and compared data from adalimumab with etanercept, abatacept, infliximab, tocilizumab, certolizumab pegol and golimumab in treating rheumatoid arthritis, with etanercept, infliximab, and ustekinumab in the treatment of plaque psoriasis, and with infliximab and certolizumab pegol in the treatment of Crohn's disease. A cost minimization analysis was then considered appropriate under the perspective of a private health care provider in Mexico and a time horizon of five years. The costs of medication and application (2014) were considered. It has been assumed that patients have a weight of 70 kg based on the National Health and Nutrition Survey 2012 and a discount rate of 5% was applied. **RESULTS:** Adalimumab proved to be less expensive in the base case against considered alternatives. The total discounted cost of using adalimumab for 5 years for rheumatoid arthritis was $ 1,030,807.61 (followed by abatacept -$1,032,233.83- and certolizumab -$1,093,401.30-); in the case of psoriasis was $ 1,047,883.48 (followed by ustekinumab -$1,210,738.82- and etanercept -$1,237,387.15-); for Crohn's disease was $ 1,072,947.28 (followed by infliximab -$1,353,574.18- and certolizumab -$2,091,555.72-).**CONCLUSIONS:** Treatment with adalimumab incurs lower costs compared with etanercept, abatacept, infliximab, tocilizumab, certolizumab pegol and golimumab in treating rheumatoid arthritis; etanercept, infliximab, and ustekinumab in the treatment of psoriasis and certolizumab pegol and infliximab in treating Crohn's disease. Further budget impact and probabilistic sensitivity analyses could provide additional information about these alternatives.

PSY12: WEIGHT LOSS TREATMENT PATTERNS IN MEXICO

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OBJECTIVES: This study investigated the treatment patterns of those who are attempting to lose weight in Mexico. **METHODS:** Data were collected using a cross-sectional survey of adults in Mexico (N=2,511) identified from a combination of internet panels and offline recruitment. Recruitment was made to ensure the demographic composition of the sample mimicked that of the total adult population. Respondents provided data on their demographics, health history, weight loss intentions and treatments used, weight change, and out-of-pocket costs. **RESULTS:** The sample was 50.6% male with a mean age of 40.7 years (SD=14.5); 38.3% were overweight and 24.4% reported a body mass index (BMI) ≥30. 62.2% of respondents reported taking steps to lose weight. These respondents were more likely to be female, of higher socioeconomic status, and more knowledgeable about their health (all p<.05). Among respondents who were trying to lose weight, only 27.5% had consulted a specialist. The primary reason for weight loss was to improve health (60.8%). Despite these intentions, success was limited. Only 34.3% reported having lost weight in the past 6 months (43.3% reported gaining weight) and the mean weight change was 0.5 kilograms (SD = 7.3). The most common treatments used for weight loss included exercise and dieting; 27.6% and 17.1% of respondents have used an over the counter (OTC)/herbal product and a prescription medication, respectively. Discontinuation rates were high with these treatments, as only between 28.0% and 48.8% of respondents who ever used OTC/herbal products and prescription medications, were currently using those methods. Mean monthly out-of-pocket costs for OTC and prescription medications (combined) did not vary by socioeconomic status. **CONCLUSIONS:** The majority of respondents were taking steps to lose weight, employing a variety of strategies. Unfortunately, success of these strategies was limited. Additional weight loss treatments and increased obesity management advice may help improve weight loss success.

PSY13: THE BURDEN OF OBESITY IN MEXICO: PREVALENCE, COMORBIDITIES, AND ASSOCIATIONS WITH QUALITY OF LIFE, RESOURCE UTILIZATION AND PRODUCTIVITY

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OBJECTIVES: This study investigated the effect of body mass index (BMI) and related comorbidities on quality of life, work productivity, activity impairment, healthcare resource utilization, and associated costs in Mexico.**METHODS:** Data were collected using a cross-sectional survey of adults in Mexico (N=2,511) identified from a combination of Internet panels and offline recruitment. Recruitment was made to ensure the demographic composition of the sample mimicked the total adult population. The analysis focused on respondents with normal weight (BMI≥18.5 & <25 kg/m2), overweight (BMI≥25 & <30 kg/m2), obesity class I (BMI≥30 & <35 kg/m2), class II (BMI≥35 & <40 kg/m2), or class III (BMI≥40 kg/m2). Demographics, comorbidities (e.g., hypertension, dysglycaemia), health outcomes such as quality of life (EQ-5D), work productivity and activity impairment (WPAI questionnaire), healthcare resource utilization, and indirect costs were assessed. Generalized linear models were used to test the association between BMI levels and health outcomes, controlling for covariates (e.g., age, sex, comorbidities). **RESULTS:** The sample was 50.6% male with a mean age of 40.7 years (SD=14.5); 38.3% were overweight and 24.4% reported a BMI≥30. 75.2% of individuals with BMI ≥35 had dysglycaemia (29.9% type 2 diabetes mellitus (T2DM) and 45.3% pre-diabetes). Increasing BMI was associated with significant impairment in quality of life (health utilities ranging from 0.84 for normal weight, down to 0.76 for people with BMI≥35). Increasing BMI was also associated with greater overall work impairment (from 18.8% up to 25.8%), activity impairment (from 15.8% up to 24.8%), and indirect costs (from 35122 MXN up to 48090 MXNs). A similar pattern of results was found in the T2DM, pre-diabetes, and hypertension subgroups. **CONCLUSIONS:** Results suggest a significant effect of increasing BMI and comorbidities on quality of life and work productivity. Improvement in the management of the obesity epidemic could have significant benefits to the patient and society.

PSY14: LEPTOSPIROSIS; A ZOONOTIC, MORBID AND FATAL DISEASE: A RECORD VIEWING STUDY

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OBJECTIVES: Leptospirosis is a zoonotic infection endemic in Malaysia. This study was conducted to describe the clinical features and laboratory findings of leptospirosis in a tertiary care hospital of Malaysia **METHODS:**This is a retrospective study including 79 consecutive patients with leptospirosis admitted to tertiary hospitals in Kelantan, Malaysia from 2009 to 2011. All patients had clinical and epidemiological data suggestive of leptospirosis, and positive laboratorial test for leptospirosis were included in this study. Hospital database were used to extract all the required information **RESULTS:** A total of 79 patients (mean age: 36.8 ± 12.4 years) were included among them 68.5% were male. Duration of symptoms onset to hospital admission was 6.7 ± 2.6 days. The most common clinical findings among patients at admission were arthralgia (90.1%), fever (86.5%), jaundice (98.3%) and myalgia (87.2%). Other common clinical manifestations were abdominal discomfort (78.8%), lethargy (33.2%) headache (68.2%), vomiting (82.4%), bleeding (39.9%) and dehydration (72.6%). Among leptospiral intricacies hepatic failure (66.4%), acute kidney injury (69.5%), acute respiratory distress syndrome (2.2%), pulmonary failure (33.1%), visual impairments (3.6%), rhabdomyolosis (12.2%) of the patients. Thrombocytopenia and hematuria were observed in 58.3% and 34.2% of total cases respectively. Mean days of hospitalization were 6.2 ± 2.3 days. Mortality was observed in 11 cases (14%). All the fatal cases have more than one organ failure **CONCLUSIONS:** Leptospirosis is zoonotic fatal and highly morbid disease. Several clinical complications associated with

leptospirosis lead to high mortality and morbidity. Early diagnosis and adequate management can reduce morbidity and mortality associated with leptospirosis

SYSTEMIC DISORDERS/CONDITIONS - Health Care Use & Policy Studies

PSY15: NUEVAS MOLÉCULAS REGISTRADAS EN CHILE DURANTE EL AÑO 2014

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OBJECTIVOS: Datos recientes han revelado que entre el 2007 y el 2013 han ingresado a Chile 25 moléculas por año, siendo las oncológicas un 20% y las destinadas a tratar enfermedades huérfanas 21%. El objetivo del presente trabajo es describir las nuevas moléculas que obtuvieron aprobación de comercialización en Chile durante el año 2014 y estimar el potencial costo esperado de incluirlas en un sistema de cobertura.**METODOLOGÍAS:** Estudio descriptivo a partir de las actas de registros ordinarios del instituto de salud pública de Chile, las cuales registran las nuevas moléculas aprobadas para comercialización. Se estimó el costo esperado por principio activo, a partir de la caracterización de su demanda en base a información epidemiológica nacional o internacional, y al precio observado en el mercado chileno o extranjero según disponibilidad.**RESULTADOS:** Durante el 2014 en Chile fueron registradas 26 nuevas moléculas, siendo los medicamentos de tipo oncológico las con mayor entrada al país (35%), lo cual es consistente con los países de altos ingresos. Las vacunas (15%), son la segunda clasificación con mayor entrada, seguidas por los medicamentos que actúan en el sistema nervioso central (12%). Del total, 21 son clasificadas como “Me Too”, 5 como “First-in-Class” y sólo 2 corresponden a drogas huérfanas. Por otro lado, 6 fueron clasificados como medicamentos de alto costo. El costo de cobertura para estos 6 medicamentos se estimó en $29.808.908.956 pesos chilenos (US$47,3 millones aproximadamente). **CONCLUSIONES:** El año 2014 presentó un aumento en el ingreso de terapias oncológicas y una disminución de moléculas para enfermedades huérfanas, comparado con años anteriores. El costo esperado de financiar los medicamentos de alto costo aprobados el 2014, corresponde a un 0,49% del presupuesto nacional de salud.

PSY16: ACESSIBILIDADE DE OBESOS M"RBIDOS USUÁRIOS DO SISTEMA PÚBLICO DE SAÚDE NO BRASIL

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OBJETIVOS: Compreender a experiência vivenciada pelos participantes com obesidade mórbida, usuários de instituições públicas de saúde, quanto aos problemas de acessibilidade existentes, explorando com profundidade a percepção e as dificuldades encontradas frente ao ambiente, no município de Jataí, Goiás, região centro-oeste do Brasil. **MÉTODOS:** Realizou-se um estudo qualitativo baseado na Teoria Fundamentada nos Dados, no ano de 2012. A coleta de dados foi conduzida por meio de observação e de entrevista semiestruturada. Todas as entrevistas foram gravadas, transcritas na íntegra e analisadas conforme preceitos da Grounded Theory, através de etapas interdependentes. **RESULTADOS:** Participaram 50 indivíduos, sendo 43 mulheres e 7 homens, com idade entre 20 a 69 anos e nível de escolaridade e socioeconômico variado. Emergiram das análises, cinco categorias: atividades diárias prejudicadas, problemas com o espaço ambiental, impactos das restrições espaciais nas inter-relações sociais, tentativas de contornar os problemas e cobranças para a inclusão social. Os participantes relataram atividades diárias prejudicadas, como tomar banho, varrer a casa; as dificuldades encontradas no espaço como barreiras quanto ao dimensionamento de cadeiras, equipamentos; os prejuízos decorrentes desses problemas como o isolamento, estigmatização, exclusão social; e as cobranças para melhorias da acessibilidade nos ambientes. **CONCLUSÕES:** Por isso, conhecer as dificuldades dessas pessoas é importante para melhorar as políticas públicas, propiciar mudanças de comportamento, definir projetos de ambientes mais acessíveis, oferecendo, desta forma, oportunidades igualitárias de lazer, de transporte, de saúde, possibilitando melhorias na qualidade de vida deles.

PSY17: MORTALITY RATE AND PREMATURE MORTALITY DUE TO SYSTEMIC ERYTHEMATOSUS LUPUS (SLE) IN LATIN AMERICA, US AND ENGLAND AND WALES

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OBJECTIVES: To compare the mortality rate and premature mortality due to SLE between 2001-2011 in Latin America countries (Brazil, Chile and Mexico) and in US and England and Wales. **METHODS:** Mortality data for the ICD M32 were extracted from Public Healthcare database from Brazil, Chile, Mexico, US and England and Wales covering 2001-2011. Numbers of deaths by country, year and age range were collected and weighted by age specific country population. Mortality rate and Years of Potential Life Lost (YPLL) prior to age 75 were calculated. Trends in mortality rates over time were analyzed by Poisson general estimation equations with an autoregressive correlation matrix. Estimated coefficients were considered significant when $p<0.05$. **RESULTS:** From 2001-2011, means of annual age-adjusted mortality rate/100,000 inhabitants were similar in Brazil, Chile, Mexico and US (0.42, 0.62, 0.59 and 0.46, respectively), but comparatively low in England and Wales (0.13). In Brazil and Mexico, the rate increased over the years ($\beta=0.044$ and $\beta=0.046$ $p<0.0$), differently from US and England and Wales that showed a decrease ($\beta=-0.028$ $p<0.0$ and $\beta=-0.027$ $p=0.025$, respectively). In Chile, the tendency increase was not statistically significant ($\beta=0.016$ $p<0.53$). In the same period, the average YPLL/100,000 inhabitants due to SLE was higher in Brazil, Chile and Mexico (14.6, 14.3 and 21.4, respectively) compared to US and England and Wales (10.3 and 2.6, respectively). In addition, the YPLL rate/100,000 inhabitants increased over the years in Latin America and decreased in US and England and Wales. **CONCLUSIONS:** Much progress has been made on the improvement of SLE

treatment and survival, but major progresses are still needed, mainly in Latin America developing countries. This study shows the increased premature mortality due to SLE in Latin America. However, direct comparison between countries should be examined cautiously, since important differences in their healthcare systems and data collection process can be found.

PSY18: CRISIS ECONOMICA Y GRADIENTE SOCIAL DE LA OBESIDAD EN ESPAÑA

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OBJECTIVOS: La crisis económica ha obligado a los hogares españoles a modificar tanto sus hábitos alimenticios, como sus rutinas diarias, y esto puede haber tenido un efecto en el sobrepeso y la obesidad, diferente por niveles socioeconómicos. El objetivo de esta investigación es aproximar y fundamentar el impacto que la crisis económica ha tenido sobre el gradiente social en obesidad en España. **METODOLOGÍAS:** Se realiza un estudio transversal comparativo mediante los microdatos de las Encuestas Nacionales de Salud de España (ENSE) para 2006 y 2011 con unas muestras aleatorias, estratificadas por niveles de estudios y estatus socioeconómico, de 29.478 y de 20.884 adultos (de 16 y más años), respectivamente. Para cada período, se estiman modelos de regresión logística multivariante que explican la obesidad y sobrepeso (aproximados a través del índice de masa corporal construido, a su vez, mediante el peso y altura declarados por el entrevistado) a partir de variables socioeconómicas (nivel de estudios y renta) y demográficas individuales, y se calculan los correspondientes cambios discretos y cocientes de odds ratios de interés. **RESULTADOS:** Los resultados preliminares muestran que el gradiente socioeconómico en obesidad existente en 2006 (más acentuado para las mujeres) no sólo se mantiene, sino que se amplía con la crisis económica; además también se amplía más en el caso de las mujeres. **CONCLUSIONES:** Con la crisis económica ha aumentado la prevalencia del sobrepeso y se ha incrementado el gradiente social de la obesidad en España, de una forma diferencial también por sexos. Esta información puede ser útil para el diseño adecuado de políticas públicas que prevengan la obesidad de una forma más eficaz.

PSY19: COSTO EN SALUD EN LA INTERVENCI"N DE SUPLEMENTO DE HIERRO EN NIÑOS DE 6 A MENOS DE 36 MESES DE EDAD PARA REDUCIR LA ANEMIA EN EL PERÚ, 2009-2014

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OBJECTIVOS: Estimar el costo en salud en la intervención de suplemento de hierro en niños de 6 a menos de 36 meses de edad para reducir la anemia en el Perú, 2009-2014. **METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en referencia al recurso humano, materiales médicos, medicamentos y equipamiento. Se tomó en consideración la asignación presupuestal en la intervención de suplemento de hierro en niños de 6 a menos de 36 meses de edad, en el marco de Presupuesto por Resultados (PpR). Se contrastó el uso de recursos médicos de suplementación de hierro versus la meta de los indicadores de desempeño del programa (proporción de suplementación de hierro en niños de 6 a menos de 36 meses de edad y proporción de anemia) tomados de la Encuesta de Demografía y salud familiar (ENDES) 2007-2014.**RESULTADOS:** El uso de recursos médicos en la intervención niños con suplemento de hierro se incremento en el periodo 2009-2014 en recursos humanos de US$. 1,96 millones a US$. 9,6 millones, materiales e insumos médicos de US$. 130,77 a US$. 1,12 millones, medicamentos de US$. 175,240 a US$. 8,38 millones, equipamiento de US$. 12,94 a US$. 483,870. En la proporción de niños de 6 a menos de 36 meses que recibieron suplemento de hierro se incremento del 2007 al 2014 de 12.3 a 24.5. En la proporción de gestantes que recibieron suplemento de hierro de 74.9 a 88.9. En la proporción de niños de 6 a menos de 36 meses de edad con anemia disminuyo de 56.8 a 46.8. **CONCLUSIONES:** La suplementación con hierro es una adecuada intervencion para disminuir la anemia, sin embrago, se requiere una adecuada calidad de gasto en esta intervención.

PSY20: CARACTERIZACIÓN DE LA POBLACIÓN CON DIAGNÓSTICO DE HEMOFILIA DE UN PROGRAMA DE SEGUIMIENTO A PACIENTES DE UN GRUPO DE EMPRESAS ADMINISTRADORAS DE PLANES DE BENEFICIO COLOMBIANAS

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OBJECTIVOS: analizar la percepción de los pacientes en cuanto al programa de atención del que hacen parte en un grupo de empresas administradoras de planes de beneficio de Colombia. **METODOLOGÍAS:** se construyó una encuesta dirigida a los pacientes y/o a cuidadores con diagnóstico de hemofilia. La encuesta estaba conformada por 25 preguntas y se diseñó para ser aplicada vía telefónica. Las preguntas estaban relacionadas con las actividades que se desarrollan dentro del programa, además de una escala visual análoga como medida de calidad de vida relacionada con la salud. De la base de datos de la población identificada se aplicó la encuesta que sirve de línea base para los programas de atención. La información fue analizada de manera descriptiva con medidas de tendencia central. **RESULTADOS:** en total, la encuesta les fue aplicada a 53 pacientes y/o cuidadores durante diciembre de 2014 y enero de 2015, con un promedio de edad de 30,4 años DE (20,3). La media de calidad de vida con escala visual análoga fue de 71,53 IC 95% (65,98-77,07), con EQ5D3L fue 86,03 de (1,01). Del total de encuestados el 77% están en tratamiento a demanda y el 40% de los pacientes encuestados refieren episodios de hemartrosis en los últimos seis meses. El 10 % de los encuestados no reconocen estar incluidos en el programa, la calificación del programa fue de 4,7 sobre 5. Los pacientes y sus acudientes encuentran que el programa les permite acceder fácilmente a los servicios de salud, medicamentos y beneficios de acceso. El total de la población encuestada recalca la necesidad de continuar con el seguimiento a los pacientes como lo hace el programa. **CONCLUSIONES:** este análisis puede considerarse como una línea de base, y debe continuarse con la evaluación periódica para el mejoramiento del programa.

PSY21: ANÁLISIS DEL COMPORTAMIENTO DE LA DREPANOCITOSIS EN COLOMBIA, DESDE LA PERSPECTIVA DEL USO DE SERVICIOS DE SALUD

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OBJECTIVOS: identificar las características epidemiológicas de la población con anemia de células falciformes (drepanocitosis), el uso y costos de los servicios de salud asociados, que permitan estimar el impacto en el sistema de salud colombiano. **METODOLOGÍAS:** a partir de registros de aseguradoras y de historias clínicas de instituciones de salud del año 2013, se construyó una base de datos que contaba con variables sociodemográficas, clínicas y de frecuencias de utilización de servicios de salud con los costos asociados. Se realizó un análisis estadístico de tipo descriptivo, con el fin de caracterizar la evolución clínica de los pacientes, la frecuencia de uso de los servicios y los costos derivados de la atención en salud. **RESULTADOS:** se obtuvo un total de 1308 pacientes con ese diagnóstico, con edad promedio de 11,24 años DE (6,7), de los cuales 693 son mujeres. El departamento con mayor número de pacientes registrados fue Bolívar (253), seguido de Atlántico (213) y Valle del Cauca (167). En cuanto al uso de servicios, el 36,85% de los pacientes requirió hospitalización durante el año; recibieron 2,49 consultas por médico/año, con un máximo de hasta 21 consultas y en promedio asistieron a servicios de urgencias 2,26 veces/año. Solo el 8,4% de los pacientes registran transfusiones y al revisar los registros clínicos de una muestra de pacientes el 30% presentan complicaciones que generan mayor impacto en el costo. El costo promedio por año de los servicios de hospitalización es de $1.516.945 y al incluir todos los demás servicios se incrementa a $1.884.231,00. **CONCLUSIONES:** en Colombia existe un número considerable de pacientes con drepanocitosis, cuya atención en salud deriva en una alta frecuencia de servicios de salud y costos asociados. Este estudio permite caracterizar el impacto de esta enfermedad con el fin de facilitar la toma de decisiones.

PSY22: ANÁLISIS COMPARATIVO DE LOS PROCESOS DE DECISIÓN DE COBERTURA DE MEDICAMENTOS PARA ENFERMEDADES RARAS EN LOS PAÍSES DE LA OCDE

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Varios de los países de la Organización para la Cooperación y el Desarrollo Económico (OECD) han abordado el problema de los Medicamentos para Enfermedades Raras (MER) a través de distintos mecanismos. En consecuencia, el acceso a estos es heterogéneo y hasta la fecha no se han realizado análisis que comparen sus experiencias. **OBJECTIVOS:** Comparar los Procesos de Decisión de Cobertura de MER (PDC-MER) empleando el enfoque de cadena de valor en los países de la OCDE. **METODOLOGÍAS:** Se realizó una revisión de literatura científica (incluyendo literatura gris), en distintas bases de datos como MEDLINE, Embase, Cochrane, BSC, CINAHL, Econlit, Web of Science, LILACS, en los sitios web de organizaciones gubernamentales, así como también de los que agrupan a países miembros como OCDE, OMS y la Unión Europea (UE). Los hallazgos se llevaron a una matriz comparativa que permitió identificar las actividades estratégicas del PDC-MER y determinar las fuentes de diferenciación en la muestra seleccionada. **RESULTADOS:** Las principales actividades estratégicas del PDC-MER identificadas fueron: evaluación de la tecnología sanitaria, decisión de cobertura y la implementación al sistema de atención sanitaria. Las dos primeras constituyen fuentes de diferenciación, fundamentalmente por las distintas metodologías empleadas en la evaluación de tecnologías sanitarias y por los elementos adicionales que influencian la decisión de cobertura. Destaca particularmente la experiencia de la UE, donde se han generado mecanismos específicos para las decisiones relacionadas con los MER, mientras que en Latinoamérica, México presenta un estado de avance superior al de Chile en la discusión sobre la cobertura de estos medicamentos. **CONCLUSIONES:** La evaluación de tecnologías sanitarias en el PDC-MER es la actividad estratégica que más comúnmente determina las diferencias en el acceso a MER. Los hallazgos del presente trabajo podrían apoyar la discusión que tiene lugar actualmente en Chile sobre cobertura de tratamientos de alto costo, entre los cuales se incluirían los MER.

PSY23: ANTHROPOMETRIC STUDY ON MONGOLIANS WITH METABOLIC SYNDROME

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OBJECTIVES: Determine the human body figure types or the anthropometric measurement changes caused by the metabolic syndromes. **METHODS:** 387 Mongolians aged 18-68 were involved in the study. Basic methods of anthropometric measurements, metabolic syndrome diagnosis and statistics were used in it. **RESULTS:** According to the defining of height differences, value of Student distribution, and statistical significant threshold between participants, healthy and with metabolic syndromes, of both sex, there were no evident variation. The statistical significance of the participants' humerus diameter because of obesity, caused by metabolic syndrome, was observed ($P<0.05$ and $P<0.01$). Also the body mass index (BMI) of the both type's participants has statistical great differences, and it is shown by modified waist indexes ($P<0.01$). Metabolic syndromes cause the statistical differences between diastole and systole of participants, both sexes ($P<0.01$). In accordance with sex differentiation their BMI has statistically marked difference ($P<0.01$). All in all the metabolic syndromes affect on human anthropometric measurements, especially it modifies the BMI more than the height. **CONCLUSIONS:** For healthy men and women the anthropometric indexes are in normal distribution. And according to the sex the men anthropometric indexes are different from the women. An average BMI for men is 27.29±0.43, for women – 24.95±0.28. In proportion to healthy and metabolic syndrome suffered participants the anthropometric indexes are in normal distribution. And according to the sex the men anthropometric indexes are different from the women. An average BMI for men is 31.81±0.75, for women

– 30.53±1.32. The waist index, the most modified anthropometric criteria, of all participants explained by the metabolic syndromes caused overweight. There were no distribution differences.

PSY24: PERFIL ALIMENTARIO SEGÚN ESTADO NUTRICIONAL DE ESTUDIANTES UNIVERSITARIOS DE VALPARAISO, CHILE

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OBJECTIVOS: Analizar el consumo alimentario según el estado nutricional en estudiantes universitarios. **METODOLOGÍAS:** Estudio transversal con 1540 estudiantes Promoción 2015, Universidad de Playa Ancha. El estado nutricional se determinó a través de la descripción del peso corporal y se aplicaron ítems del Youth Risk Behavior Survey para conocer los hábitos alimentarios. Se definieron cuatro perfiles alimentarios según el cumplimiento de las recomendaciones alimentarias chilenas: 1.AS; 2.AS+ANS; 3.ANS; 4. No cumple los criterios anteriores. Éstos se relacionaron con el estado nutricional. Los datos fueron analizados utilizando el paquete estadístico SPSS V.18.0. Ética: Se aplicó consentimiento informado previo a la aplicación del cuestionario. **RESULTADOS:** La media de edad fue de 19,3 años (DE=2,61 años), el 60,6% eran mujeres y el 82,9% proviene de la Región de Valparaíso. El 40,9% informa presentar sobrepeso u obesidad. El 7,3% tuvo un Perfil de AS (Cumplió con 2 de las siguientes recomendaciones: Consumo diario ≥3 porciones de frutas, ≥2 porciones de verduras y ≥3 porciones de lácteos; Consumo semanal de ≥2 porciones de legumbres; ≥2 porciones de pescado); el 64,4% tuvo un Perfil ANS (Cumplió con 2 de los siguientes criterios: Consumo semanal de bebidas azucaradas, alimentos con grasa; no desayunar diariamente); el 15,1% cumple con ambos criterios y el 13,2% no cumple con los criterios. Se observó diferencias significativas en los estudiantes con Perfil de ANS según percepción de peso ($p<0,05$). El consumo de pescado y lácteos fue significativamente mayor en los que declaran peso normal ($p<0,05$). **CONCLUSIONES:** El consumo de un Perfil AS no muestra diferencias según estado nutricional. Es fundamental establecer estrategias que promuevan la alimentación saludable en los universitarios.

URINARY/KIDNEY DISORDERS - Clinical Outcomes Studies

PUK1: MESES EVITADOS DE DIÁLISIS EN UNA POBLACI"N CON ENFERMEDAD RENAL CR"NICA ESTADIO 5 CON INTERVENCI"N PREDIALÍTICA EN COLOMBIA

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OBJECTIVOS: Estimar meses evitados de diálisis mediante la comparación de la velocidad de progresión de la de filtración glomerular (TFG) y los meses hasta diálisis en una población con enfermedad renal crónica estadio 5 (ERC5), en intervención pre dialítica, frente a 2 velocidades de progresión descritas en la literatura. **METODOLOGÍAS:** Estimamos la velocidad de perdida de TFG en mil/min/año y la sumatoria de meses hasta diálisis en una cohorte histórica de pacientes con ERC5 que ingresaron a diálisis con intervención predialitica de mínimo 1 mes, durante el periodo del 2010 al 2014. Se simularon dos escenarios con medianas de velocidad de progresión tomadas de la literatura para estimar los meses hasta diálisis en cada uno de estos escenarios. **RESULTADOS:** Se incluyeron 138 pacientes, la media de edad fue de 75.66 (DE 13.93) años, 80 (57.97%) hombres. Se estimaron los meses entre la TFG en estadio5 y la TFG de inicio de diálisis según tres medianas de velocidad de progresión así: a) real para la población evaluada (7,08 mil/min/año), b) mediana 1: (7.7 mil/min/año) y c) mediana 2: (12 mil/min/año); el resultado mostró que los 138 pacientes con una mediana de TFG inicial 14.13 (RIQ 13.39-154.61) mil/min alcanzaron la mediana de TFG de inicio de diálisis 11.82(RIQ 10-13) mil/min en 852.15 meses en el cálculo real, y en 509.70 y 326.21 en el cálculo con las medianas 1 y 2 respectivamente **CONCLUSIONES:** Comparada la mediana real de progresión de esta población contra las 2 medianas de referencia, se evitan 342.45 y 525.94 meses respectivamente de diálisis, lo que permite afirmar que la intervención pre dialítica, aún en el estadio más avanzado de la ERC, retrasa la llegada a diálisis y así contribuir con reducción de costos para el sistema de salud, a expensas de los meses evitados de diálisis.

URINARY/KIDNEY DISORDERS - Cost Studies

PUK2: COSTO EFECTIVIDAD DE LA HEMODIÁLISIS EN LOS PRESTADORES DE SERVICIOS DE DOS ASEGURADORAS A TRAVÉS DE LA EVALUACIÓN DE INDICADORES MÍNIMOS PARA EL ANÁLISIS DE RESULTADOS CLÍNICOS DE LA TERAPIA DIALÍTICA EN COLOMBIA

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OBJECTIVOS: Un reto actualmente para la toma decisiones es analizar resultados en salud desde la óptica de la costo-efectividad. La Cuenta de Alto Costo(CAC) con base en esto, tiene como objetivo proporciona al sistema de salud herramientas aplicables, a partir de mediciónes y análisis de datos que generan información confiable, para diseñar o ajustar políticas públicas que contribuyan al mejoramiento de la calidad de la atención y calidad de vida en la población. **METODOLOGÍAS:** Se identificaron 1043 pacientes en 2 aseguradoras, sometidos a hemodiálisis(HD) en 5 prestadores y 58 unidades renales en el año 2013. Se determinó la efectividad de la terapia en términos de 5 indicadores que análizan resultados clínicos: proporción de pacientes prevalentes con:1)catéter, 2)dosis de

kt/v≥1.2, 3)hemoglobina≥10g/dl, 4)fósforo≤6.0mg/dl y 5)albumina≥4.0g/dl. El costo de la terapia fue suministrado directamente por los aseguradores, valor que pagan al prestador. Los datos se analizaron y procesaron en una herramienta de análisis de costo-efectividad que contempla :la efectividad de la terapia, costo y PIB percapita. Se compararon 10 escenarios del impacto de costo-efectividad. **RESULTADOS:** Al comparar los prestadores de dialisis se identificó que son costo-ahorradores:6, altamente costo-efectivos: ninguno, costo-efectivo:1, probablemente costo-efectivo:1 y no costo-efectivos:2. En la razón de costo-efectividad(RCE) existe una diferencia de $17.140.904,08. La razón de costo-efectividad incremental(RCEI) mostró en escenarios costo-ahorradores una diferencia paciente-año $38.975.068,45 y en no costo-efectivos la diferencia paciente-año fue $395.362.666,67. Adicionalmente la EPS1vs.EPS2 resultó costo-ahorradora y su RCE presentó diferencia de $4.797.561,97paciente-año. **CONCLUSIONES:** Estos resultados son un primer ejercicio que: 1)Genera una reflexión sobre la eleccion de prestadores, 2)rompe el paradigma sobre la evaluación de costo-efectividad con datos reales de resultados en salud, 3)Constituye un punto de partida para afinar la técnica de análisis empleada y usar otras herramientas avanzadas que permitan trabajar con cada aseguradora y proporcionar análisis de costo-efectividad de la prestación de servicios e intervenciones en salud.

PUK3: ANEMIA TREATMENT COST IN PATIENTS WITH CHRONIC KIDNEY DISEASE (A-CKD) IN THE MEXICAN SOCIAL SECURITY INSTITUTE (IMSS)

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OBJECTIVES: To estimate the treatment cost of anemia in patients with A-CKD and its relation with hemoglobin (Hb) level management in IMSS population. **METHODS:** A retrospective, longitudinal study was designed to collect data from medical records of 83 A-CKD patients in one second level and two third level IMSS hospitals. A case report form was designed to collect data. Interviews with nephrologists were performed to fill data gaps. Information collected included demographic data, drinking and smoking habits, resource utilization, Hb levels and iron reservoirs. Patients were stratified according to Hb levels over 12 months in three groups: normal levels (10.5-12.5g/dL; defined HbN), low level (HbL) and high level (HbH). Costs were calculated for each group. Renal replacement therapy costs were not considered to isolate anemia related costs. Resource unit costs were obtained from the IMSS 2015 report and drugs costs from IMS government sales database. Results are reported in 2015 MXN. **RESULTS:** Pensioned/retired patients group increased 27%, all patients quit alcohol and 75% quit smoking. 52% of patients failed to achieve expected iron reservoirs; however all of them were on treatment with erythropoiesis-stimulating agents (ESA) to control anemia. Despite medication use, 11% of patients were classified as HbN; 17% as HbH and; 72% as HbL. HbL group had increased hospitalization, medication use and blood transfusions compared to HbN and HbH, while having a reduced number of consultations and lab tests. HbH average cost was $33,107.50, driven by medication; HbN average cost was $29,885.20, driven by consultations and; HbL average cost was $47,182.50, driven by hospitalizations.**CONCLUSIONS:** A large proportion of A-CKD patients fail to maintain Hb control regardless of being treated with ESA. This increases resource consumption mainly driven by hospitalizations. Patients who succeed in maintaining Hb levels through time use fewer resources and could be related to better health outcomes.

PUK4: SHORT AND LONG-TERM ECONOMIC IMPACT OF SECONDARY HYPERPARATHYROIDISM TREATMENT IN CHRONIC KIDNEY DISEASE IN CARLOS ANDRADE MARIN HOSPITAL (ECUADOR)

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OBJECTIVES: The treatment of secondary hyperparathyroidism (SHPT) in patients with chronic kidney disease (CKD) is generating high costs worldwide mainly due to adverse complications. In Ecuador, only few healthcare institutions have implemented management protocols for the treatment of SHPT to reduce costs and to improve patient quality of life. The goal of this study was to evaluate the short (1 year) and long-term (5 years) costs and savings in the management of SHPT with calcitriol and paricalcitol in CKD patients. **METHODS:** Costs of hospitalization, erythropoietin (EPO) and intravenous iron were calculated for 354 CKD patients treated for SHPT in the Carlos Andrade Marín Hospital. The study used international models and standard doses of calcitriol and paricalcitol for a prospective estimation based on the initial parathormone level (PTHi). The costs of services were based on the Ecuadorian National Reference costs (2014) and adjusted for inflation according to official references. Univariate statistical sensitivity analysis was performed. **RESULTS:** Of the 354 patients, 147 (41.4%) had a PTHi in the range 300-600, 45 (12.8%) in the range 601-800, and 162 (45.7%) above 800 pg/ml. The 1-year estimated costs per patient were: calcitriol US$63.88 and paricalcitol US$926.55; EPO: calcitriol US$19,522.95 and paricalcitol US$16,478; intravenous iron with calcitriol US$143.21 and with paricalcitol US$187.76. During hospitalization, patients consumed US$1,738.51 with calcitriol and US$1,196.93 with paricalcitol. Total costs per patient amounted US$21,468.54 with calcitriol and US$18,790.13 with paricalcitol. Total savings using paricalcitol instead of calcitriol was US$2,674.31. Adjusting for inflation, the 5-year cumulative costs were US$319 for calcitriol and US$1,978 for paricalcitol; EPO with calcitriol US$97,615 and with paricalcitol US$82,394; intravenous iron with calcitriol US$716 and with paricalcitol US$939. Hospitalization costs reached US$9,343 with calcitriol and US$6,432 with paricalcitol. Total savings using paricalcitol instead of calcitriol amounted US$16,249 per patient. **CONCLUSIONS:** Paricalcitol is less costly than calcitriol in treating CKD-SHPT patients.

PUK5: EVALUACION ECONOMICA DEL MANEJO FARMACOLOGICO DEL PACIENTE CON HIPERPLASIA PROSTATICA BENIGNA EN COLOMBIA

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OBJECTIVOS: Esta evaluación económica busca conocer, dentro de las opciones de tratamiento farmacológico, cuál medicamento (doxazosina, tadalafilo, finasteride, tamsulosina, o terapia combinada de tamsulosina/dutasteride) es más costo-efectivo. **METODOLOGÍAS:** Se diseñó un modelo de Markov con ciclos mensuales, perspectiva del tercero pagador (sistema de salud colombiano) y horizontes temporales de 2 y 5 años. Los datos de efectividad y seguridad, así como las probabilidades de cambio de tratamiento y de eventos adversos se obtuvieron a partir de una revisión de la literatura. Los costos locales a partir de casos base, tarifarios oficiales (se usó ISS + 30 %) y resoluciones de precios para medicamentos. Las utilidades, en años de vida ajustados por calidad, se obtuvieron de la base de datos de la Universidad de Tufts. **RESULTADOS:**Los resultados del modelo indican que la terapia combinada (tamsulosina/dutasteride) para el tratamiento de la HPB, es la terapia dominante al compararla con las otras cuatro alternativas. Evita 96 cirugías a los dos años y 152 a los 5 años (por cada 1000 pacientes). Con respecto a los episodios de retención urinaria aguda, los pacientes tratados con terapia combinada presentan 10 y 23 episodios a los 2 y 5 años, respectivamente, mientras que con las monoterapías de tamsulosina presentan 40 y 87, con tadalafilo 30 y 65, con finasteride 15 y 34 y con doxazosina 29 y 63 episodios respectivamente. **CONCLUSIONES:** Desde el punto de vista económico, bajo los supuestos del modelo, según los datos de eficacia de las terapias en la evidencia publicada y desde el punto de vista del tercero pagador, la terapia combinada (tamsulosina/dutasteride) para el tratamiento de la HPB, es la alternativa farmacólogica más costo-efectiva para Colombia. Los resultados fueron sensibles a los costos de los medicamentos y a la efectividad de los mismos.

PUK6: ANÁLISE DE CUSTO-UTILIDADE EM PACIENTES COM INSUFICIÊNCIA RENAL CRÔNICA SUBMETIDOS À TERAPIA RENAL SUBSTITUTIVA (TRS)

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OBJETIVOS: Avaliar o custo utilidade em pacientes com insuficiência renal crônica submetidos a transplante renal (TR) e hemodiálise (HD) na região metropolitana de Fortaleza-Ceará. **MÉTODOS:** Estudo de avaliação econômica confrontando resultados clínicos e de custos. Os dados clínicos foram coletados, entre outros, de um estudo observacional, de visão prospectiva, quantitativo com aspectos qualitativos de avaliação econômica da saúde, seguindo os princípios gerais do modelo denominado de análise de custo-utilidade. A pesquisa foi realizada nas unidades de hemodiálise de Fortaleza e Região Metropolitana e nos serviços de transplante renal do Hospital Geral de Fortaleza e do Hospital Universitário Walter Cantídio. Selecionou-se uma amostra de 50 pacientes em hemodiálise e 50 transplantados renais. Indicadores de qualidade de vida, medido através do Eq5D. Utilizado a perspectiva do SUS. Um modelo de Markov foi desenvolvido para a TRS com 10 anos de seguimento. Custos e benefícios foram descontados em 5% ao ano. As probabilidades de transição entre as modalidades foram obtidas através da literatura e os custos foram obtidos através de tabelas da base de dados nacional do Departamento de Informática do SUS (DATASUS). A comparação entre as alternativas de tratamento foi medida pela razão de custo-utilidade incremental (RCUI). Análises de sensibilidade unidirecional e probabilística avaliaram as incertezas. **RESULTADOS:** Na análise de custo-utilidade, TR resultou em alternativa mais custo-efetiva com RCUI de R$ 20.902,33. Diagrama de Tornado mostra que o custo dos medicamentos do pós-transplante tem o maior impacto no resultado. **CONCLUSÕES:** Pacientes transplantados apresentam melhor qualidade de vida a um custo mais elevado, muito embora esse custo se encaixe nos padrões estabelecidos pelo Sistema Único de Saúde (SUS) e, por isso, deve ser incentivado.

URINARY/KIDNEY DISORDERS - Health Care Use & Policy Studies

PUK7: DIÁLISE PLANEJADA E A UTILIZAÇÃO REGULAR DA ATENÇÃO PRIMÁRIA À SAÚDE ENTRE OS PACIENTES DIABÉTICOS DO MUNICÍPIO DE BELO HORIZONTE, MINAS GERAIS, BRASIL

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OBJETIVOS: Analisar os fatores associados ao início planejado da diálise dos pacientes diabéticos que iniciaram o tratamento no Município de Belo Horizonte, Minas Gerais, Brasil. **MÉTODOS:** Estudo transversal com 250 pacientes diabéticos que iniciaram diálise entre janeiro de 2006 e dezembro de 2007. Iniciar a diálise com fístula arteriovenosa ou em diálise peritoneal foi classificado como início planejado. Foram investigadas as variáveis sociodemográficas, clínicas e de utilização de serviços de saúde por meio de entrevista semiestruturada. Para análise multivariada utilizou-se regressão de Poisson. **RESULTADOS:** Setenta por cento dos pacientes começaram a diálise de forma não planejada e 67% dos que consultaram com o nefrologista foram encaminhados com mais de quatro meses. Frequentar o centro de saúde, não ter a primeira consulta com nefrologista paga pelo SUS e ter tido opção de escolha para o tratamento da doença renal foram fatores relacionados ao início planejado da diálise **CONCLUSÕES:** O início não planejado da diálise é comum no Município de Belo Horizonte e ocorre independentemente do tempo de encaminhamento ao nefrologista.

HEALTH CARE USE & POLICY STUDIES - Consumer Role in Health Care

PHP1: GASTO DE BOLSILLO EN SALUD Y MEDICAMENTOS EN CHILE: ANÁLISIS COMPARATIVO DE LOS PERIODOS 1997, 2007 Y 2012

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OBJECTIVOS: Chile ha hecho esfuerzos importantes para disminuir las barreras de acceso a los cuidados de salud en los últimos 20 años. Sin embargo, los estudios muestran que el gasto de bolsillo en salud (GBS) aumentó en promedio un 22,7% entre 1997 y 2007, y que su principal componente el 2007 fue medicamentos (GBM). EL objetivo del presente estudio es estimar el gasto de bolsillo en salud y en medicamentos en el año 2012 y establecer comparaciones con los años 1997 y 2007. **METODOLOGÍAS:** Estudio descriptivo a partir de las Encuestas de Presupuestos Familiares (EPF) de los años 1997 (n=8.445), 2007 (n=10.092) y 2012 (n=13.056), las cuales registran los gastos que realizan los hogares en Chile a partir de una muestra compleja de representación nacional. Se estimó, en pesos chilenos 2012, el gasto mensual en salud y medicamentos, en términos absolutos y relativos, promedio y por deciles de gasto del hogar. **RESULTADOS:** El GBS mostró un aumento entre el 2012, 2007 y 1997. El GBM absoluto y relativo al GBS mostró una leve disminución entre 2007 y 2012, lo cual fue consistente en prácticamente todos los deciles. Esta disminución fue mayor en el subgrupo de hogares que efectivamente incurren en GBS (de 55,1% a 37,4% entre el 2007 y 2012). Respecto de la distribución por nivel socioeconómico, el estudio muestra una gradiente que favorece a los más ricos en aquellos hogares que efectivamente gastan en salud y en aquellos que efectivamente gastan en medicamentos.**CONCLUSIONES:** El GBS ha aumentado en los últimos años en Chile, lo cual se explica mayormente por ítemes distintos a medicamentos. Sin embargo, el análisis revela que se ha mantenido la inequidad de acceso a medicamentos afectando mayormente aquellos grupos que están en necesidad.

PHP2: PATIENTS' CHOICE OF PROVIDERS AS A SIGNAL OF QUALITY OF CARE. EVIDENCE OF TWELVE PUBLIC HOSPITALS IN THE PROVINCE OF BUENOS AIRES, ARGENTINA

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OBJECTIVES: Examine the operative capacity of health networks in seven districts of the Great Buenos Aires to provide effective access to care to poor, non-formal coverage population groups, and provide insights about how patients select their main sources of care, and how those decisions relate to objective measures of quality. **METHODS:** Identification of key prioritized interventions: breast, colon and lung cancer, normal and high risk deliveries, rehabilitation and mental health, cronic kidney diseases, vascular illness and main risk factors. Mutiple choice interviews with a sample of 296 hospital patients, about motives of consultation, choice of institution to seek care, quality perception, waiting times, perception of health network organization, and 308 hospital physicians and nurses, about health network organization, flow of patients clinical history, motives of referrals from health care centers, and on-the-job satisfaction. In-depth interviews with 15 Provincial and Municipal Hospital Directors, about outputs, human resources, equipments, procesess and resolution capacity. The data collected allowed to design a set of tables of descriptive statistics and correlation coefficients on users' behavior and staff's perceptions. **RESULTS:** The actual operation of health care networks show patients attending directly to hospitals' emergency rooms instead of looking for care mainly at primary health care facilities. This conduct creates underutilization of health posts and over-demand of services at crowded hospitals, even when low-risk related care is required. In high-risk related care, formal norms and protocols are scarce and informal referrals based on contacts among professionals across services are frequently identified. **CONCLUSIONS:** A solid health care network requires listening people's decisions, translated in the way of choosing their sources of care. They provide relevant insights about what procedures, technologies and patterns of care should be prioritize in order to build a sound structure of attention.

PHP3: BIOSIMILAR TRIALS: PATIENT RECRUITMENT AND BARRIERS IN BRAZIL

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OBJECTIVES: Biosimilar drugs will play an important role worldwide, especially in Brazil, where there is an urgent need for improvement on access to biotechnology treatments for patients. Several ongoing clinical trials (CT) evaluating biosimilar drugs are facing recruitment issues mainly associated to safety, efficacy and quality questions. Therefore, we aimed to identify barriers, and propose actions to overcome those issues.**METHODS:** The barriers faced by ongoing biosimilarity CTs were identified according to Libbs Farmacêutica (sponsor) experience. In addition, an action plan was proposed to solve the identified issues. **RESULTS:** The main barrier experienced during biosimilarity CTs was the hesitation of physicians and patients during recruitment, due to the uncertainties regarding the biosimilar drug quality, safety and efficacy. These uncertainties were mainly associated to lack of knowledge related to biosimilar development requirements. Additionally, operational issues included inefficient communication between medical/institutions/offices/investigational sites and reduced advertisement and recruitment strategies campaigns on account of regulatory restrictions. Therefore, we propose strategies to be adopted: a plan of several publications addressing biosimilar drug

features; the development of a national network of reference investigational sites including physicians and other professionals (e.g pathologists); broadening of screening methods, awareness activities aimed at physicians (e.g. folders) and cancer support groups. **CONCLUSIONS:** To our knowledge, this is the first analysis of recruitment barriers on biosimilar trials. Although patient accrual barriers have been discussed previously on the scientific community, we identified specific issues to biosimilar investigational drugs. The proposed approach can overcome operational issues and improve overall CT performance in Brazil. There is an emerging need for debate on biosimilar drug development among physicians and patients. This discussion aims to anticipate concerns related to the knowledge and development of those drugs in Brazil, prior to their registry. It will also support the decision making process on drug registry and access.

HEALTH CARE USE & POLICY STUDIES - Disease Management

PHP4: EFEITOS DA ATENÇÃO FARMACÊUTICA NOS RESULTADOS EM SAÚDE DOS PACIENTES: REVISÃO SISTEMÁTICA COM META-ANÁLISES

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INTRODUCTION: o número de estudos de intervenções farmacêuticas vem aumentando nos últimos 20 anos, no mundo, como resultado do movimento internacional que ocorreu na década de 90 para o reconhecimento da Atenção Farmacêutica como a filosofia de uma prática profissional que resulta em melhorias na saúde dos pacientes e na sua qualidade de vida **OBJETIVOS:** analisar os ensaios clínicos aleatorizados sobre intervenções farmacêuticas, publicados de 1990 até 2010, através de uma revisão sistemática e meta-análises **MÉTODOS:** realizou-se uma busca nas bases de dados (Medline, Cochrane Library, IPA, Lilacs, Scielo, Scopus, Embase e CINAHL) de ensaios clínicos aleatorizados, publicados em inglês, português e espanhol. Foram incluídos os estudos em que a intervenção era exclusiva do farmacêutico ou que o farmacêutico fazia parte da equipe de saúde. Nenhuma restrição foi realizada para o tipo de intervenção ou tempo de acompanhamento. Os dados foram extraídos por dois revisores independentes. **RESULTADOS:** foram encontrados 1.499 artigos dos quais foram incluídos 95 (75 estudos). A maioria dos estudos (n=72, 78%) foi classificado como Intervenção "I", ou seja, como Acompanhamento Farmacoterapêutico ou Medication Therapy Management. Uma grande parte dos estudos realizou acompanhamento de 6 meses(n=36; 39%) e com atendimento ambulatorial (n=75; 81%). As condições de saúde mais estudadas foram a Hipertensão Arterial (n=12), pacientes com polimedicação (n=11), diabetes tipo 2 (n=6) e dislipidemia (n=5). Os desfechos clínicos (n=66) e humanísticos (Qualidade de Vida Relacionada à Saúde, n=29) foram os mais relatados nos estudos. Os resultados das meta-análises com sensibilidade e robustez mostraram-se significativos para redução na mortalidade no grupo que recebia a intervenção farmacêutica. **CONCLUSÕES:** a intervenção farmacêutica reduz a mortalidade dos pacientes, entretanto, para se analisar os demais desfechos pesquisados são necessários mais ensaios clínicos aleatorizados em diferentes contextos para se obter melhor sensibilidade e robustez nos resultados.

HEALTH CARE USE & POLICY STUDIES - Drug/Device/Diagnostic Use & Policy

PHP5: AVALIAÇAO DAS DEMANDAS DA ISOTRETINOÍNA PARA O TRATAMENTO DA ACNE GRAVE NO SISTEMA ÚNICO DE SAÚDE (SUS), BRASIL

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OBJETIVOS: Objetivo: Descrever o perfil dos usuários e a demanda de isotretinoína de uso sistêmico no SUS em Minas Gerais (MG), no ano de 2013. **MÉTODOS:** Realizou-se análise descritiva, utilizando-se a distribuição de frequências para variáveis categóricas e medidas de tendência central para variáveis contínuas, por meio de consulta ao Sistema Integrado da Assistência Farmacêutica do Estado de Minas Gerais, Brasil, e a registros do Centro Colaborador do SUS – Avaliação de Tecnologias & Excelência em Saúde (CCATES). **RESULTADOS:** Foram avaliados 85 mil. Desses, 11.593 (14%) para doenças da pele e tecido subcutâneo, de acordo com a classificação CID-10, somente as solicitações de isotretinoína para o tratamento da acne grave somaram 10.662 (92%). O sexo masculino representou 55% com média de idade de 21,5±6,9 anos vs. 24,9±8,2 feminino. As solicitações da isotretinoína para o sexo masculino na faixa etária abaixo dos 20 anos somaram 63,4% vs. 36,5% para o sexo feminino. Já na faixa etária dos 20 até abaixo dos 30 anos as solicitações do sexo masculino somaram 31,2% vs. 42,3% para o sexo feminino. O município de Belo Horizonte foi responsável por 12% (1.141) solicitações, Montes Claros 6,8% (642) e Governador Valadares 5,3% (501). **CONCLUSÕES:** A maioria das solicitações das doenças da pele e do tecido celular subcutâneo foi de isotretinoína de uso sistêmico para o tratamento da acne grave. Destaque para os municípios onde ocorreram as maiores demandas, que correspondem com cidades de grande densidade populacional. O perfil dos usuários indicou haver uma demanda maior para o sexo masculino, conforme literatura. A idade média encontrada demonstra que a acne grave é mais precoce nos homens que em mulheres. Destaque para a diferença na demanda de isotretinoína de uso sistêmico por faixa etária entre os sexos, indicando a necessidade de se realizar estudos mais específicos para elucidar os motivos deste achado.

PHP6: DETERMINANT FACTORS OF THE ADMINISTRATIVE PATHWAY TO ACCESS MEDICINES IN THE BRAZILIAN HEALTH SYSTEM

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OBJECTIVES: To identify the determinant factors of the administrative pathway to access medicines in the Brazilian public health system. **METHODS:** Case-control study produced in a city in the Middle West region of Brazil. Were included 168 users in the case group, who were requesting medicines through administrative pathway in the Health Department. The control group had 435 users from Basic Health Units. The data were collected from March to July 2014 by face to face interview. The independent variables were: users' economic and demographic characteristics, health-care characteristics, pharmaceutical care characteristics and health care conditions. The outcome variable was the administrative demand for medicines. The data were analyzed by multivariate logistic regression. **RESULTS:** In the economic and demographic characteristics, were significant: age (0-9 years, p=0.035; 60 and over, p<0.001), gender (male, p=0.002), skin color (white, p=0.005) and social stratum (AB, p=0.004). In the health-care characteristics, were significant: appointment in the public health system (rarely/never, p=0.016), information to prescriber when wasn't possible to access medicine (all/often, p<0.001), refusal to treatment caused by missing prescription from the public sector (all/often, p=0.009), understanding information about medicines guidance (rarely/never, p=0.013) and recommendation from public health services to people with financial resources (yes, p=0.001). In the characteristics of pharmaceutical care, were significant: medicines' availability (excellent/good, p=0.022), treatment break due to the unavailability of medicine (all/often, p=0.007) and agreement with the rules (half the time, p=0.001). In the health care conditions, were significant: belief about the right to receive any medicine (yes, p=0.010), coverage by private health insurance (yes, p=0.012), acquisition of medicine in the private sector (all/often, p=0.025; few/never, p=0.004) and outcomes with medicines (4th quartile, p<0.001). **CONCLUSIONS:** The occurrence of demands for medicines by administrative pathways is inside of a multifactorial context, including the pharmaceutical care' and health-care' characteristics, health care conditions and the users' economic and demographic characteristics.

PHP7: ANÁLISE DA PRODUÇÃO DE AVALIAÇÃO DE TECNOLOGIAS EM SAÚDE DO CENTRO COLABORADOR DO SISTEMA ÚNICO DE SAÚDE (SUS), BRASIL - UMA PARCERIA ENTRE O GOVERNO E A ACADEMIA

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OBJETIVOS: Avaliar a produção do Centro Colaborador do SUS – Avaliação de Tecnologias & Excelência em Saúde (CCATES), produto de uma parceria entre a Universidade Federal de Minas Gerais (UFMG) e a Secretaria de Estado de Saúde de Minas (SES/MG) na avaliação de tecnologias em saúde (ATS) e evidência científica para tomada de decisões. **MÉTODOS:** Foi considerado o período entre setembro/2011 a dezembro/2014 e avaliada a relevância desta produção para o Governo e usuários do Sistema Único de Saúde de Minas Gerais. **RESULTADOS:** A equipe do CCATES/UFMG avalia o cumprimento dos critérios de Protocolos Clínicos e Diretrizes Terapêuticas de todos os processos de solicitação de medicamentos do Componente Especializado da Assistência Farmacêutica (CEAF), que somente no ano de 2014 atingiu a marca de 79.450 processos. Os medicamentos mais solicitados durante o período avaliado foram aqueles para tratar doenças: endócrinas, nutricionais e metabólicas; sistema nervoso; aparelho respiratório; pele e tecido subcutâneo; sistema osteomuscular e tecido conjuntivo; trasntornos mentais e comportamentais; aparelho genitunitário; que em conjunto representaram 87,8% de todas as doenças contempladas pelo CEAF. O tempo médio de análise dos processos foi de uma semana. A equipe também elaborou 27 Pareceres Técnico-Científicos sobre a eficácia e a segurança de tecnologias em saúde e produziu 15.183 Notas Técnicas em atendimento a judicialização da saúde de medicamentos e/ou procedimentos contra a SES/MG. Além disso, o CCATES/UFMG promoveu painel de especialistas e simpósio internacional sobre ATS. **CONCLUSÕES:** O CCATES/UFMG é uma organização independente com credibilidade na sociedade e no governo que fornece aos interessados subsídios para tomada de decisões. A parceria entre a Academia e Governo tem se mostrado ferramenta imprescindível em um contexto de orçamento restrito e crescente demanda por medicamentos de alto custo, por vezes envolvendo processos judiciais. Essa capacidade de respostas ágeis e qualificadas proporciona benefícios importantes à sociedade.

PHP8: POLÍTICAS DE ACESSO AO MEDICAMENTO NO SISTEMA PÚBLICO DE SAÚDE NO BRASIL

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OBJETIVOS: Descrever as políticas de acesso aos medicamentos no sistema público de saúde no Brasil. **MÉTODOS:** Trata-se de uma pesquisa documental de natureza qualitativa realizada nos meses de novembro e dezembro de 2014. O objeto de estudo foram documentos de caráter legal, normativo e explicativo, capazes de descreverem as políticas de acesso ao medicamento do Brasil. Os documentos foram resgatados de sites dos órgãos de saúde e universidades, diários oficiais, repositórios e base de dados. Para subsidiar a análise dos documentos foi realizada uma pesquisa bibliográfica de trabalhos na área. **RESULTADOS:** O direito ao medicamento, positivado na Constituição de 1988 e regulamentado pela legislação infraconstitucional, pode ser acessado por três vias de acordo com os componentes da assistência farmacêutica: atenção básica, estratégico e especializado. Os da atenção básica estão descritos na Relação Municipal de Medicamentos Essenciais e disponibilizados nas unidades de saúde nos municípios de forma difusa e não uniforme. Os municípios também distribuem os medicamentos estratégicos que estão descritos em listas específicas. Os medicamentos do componente especializado estão descritos também em listas específicas. Além das listas oficiais, os protocolos clínicos e diretrizes terapêuticas integram a regulamentação dessas vias de acesso aos medicamentos no Brasil. **CONCLUSÕES:** O acesso aos medicamentos no Brasil é garantido por meio de políticas públicas e deve garantir a saúde dos cidadãos, de forma coletiva, integral e igualitária. Assim, a efetivação do direito ao medicamento é garantida por meio de uma ação coordenada entre os

três níveis de gestão do sistema público de saúde no Brasil. Essa forma de ordenação leva o usuário, em alguns casos, ter que percorrer vários caminhos para ter atendido todas as suas necessidades terapêuticas, pois o acesso ao medicamento está condicionado a sua presença nas listas oficiais.

PHP9: A PARTICIPAÇÃO DO DEPARTAMENTO DE CIÊNCIA E TECNOLOGIA DO MINISTÉRIO DA SAÚDE NA REVISÃO E ATUALIZAÇÃO DA RENAME

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OBJETIVOS: A Rename (Relação Nacional de Medicamentos Essenciais) é uma lista que contém o elenco dos medicamentos disponíveis no Sistema Público de Saúde Brasileiro (SUS), atualizada a cada dois anos. O objetivo deste trabalho é apresentar a participação do Departamento de Ciência e Tecnologia (DECIT) na Subcomissão Técnica de Atualização da Rename do Ministério da Saúde e descrever o processo de revisão e atualização dessa relação. **MÉTODOS:** A revisão e atualização da Rename estão sendo realizadas por grupos colaboradores externos ao Ministério da Saúde, como universidades e demais institutos de ensino e pesquisa. A participação do DECIT na Subcomissão foi relacionada, especialmente, ao suporte do desenvolvimento da metodologia a ser empregada nas etapas da atualização, como busca na literatura sobre o elenco de medicamentos, seleção dos estudos e avaliação crítica das evidências obtidas. Além disso, o Departamento ainda acompanha e revisa primariamente os resultados do trabalho dos colaboradores externos, com base nas diretrizes e ferramentas do Ministério da Saúde do Brasil. O processo envolveu uma revisão adicional pelo grupo de trabalho. **RESULTADOS:** Foram contratadas oito instituições que revisaram o elenco de medicamentos de cada condição de saúde por grupo anatômico. O produto deste trabalho foi a elaboração de estudos contendo indicações de inclusão, manutenção ou exclusão de medicamentos da Rename. Atualmente, esses trabalhos estão em processo de revisão. A próxima etapa será a elaboração de avaliações de tecnologias em saúde para todos os medicamentos que serão incluídos ou excluídos da lista do SUS. Como última instância, esses estudos serão avaliados pela Comissão Nacional de Incorporação de Tecnologias no SUS para possível incorporação. **CONCLUSÕES:** A atualização da Rename fundamentada em evidências científicas visa assegurar a disponibilização racional de medicamentos no SUS e a transparência no processo de avaliação para a inclusão dessas tecnologias no sistema.

PHP10: A PERSPECTIVE ON THE USE OF HEALTH TECHNOLOGY ASSESSMENT IN BRAZIL AND MEXICO

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OBJECTIVES: Brazil and Mexico have implemented specialized health technology assessment (HTA) agencies which are part of the Ministry of Health (MoH). HTA was established in Brazil in 2006 by means of CITEC, succeeded in 2011 by the National Committee for Health Technology Incorporation (CONITEC), and in Mexico in 2004 through the National Center for Technological Excellence in Health (CENETEC). The study aimed to compare Brazil and Mexico with regard to HTA systems, processes and decision-making. **METHODS:** A literature survey in English, Spanish and Portuguese was performed and publications from 2004 to early 2015 were retrieved from PubMed/Medline, Science Direct (Elsevier), LILACS and SciELO. Grey literature was identified in the form of reports and recommendations from institutional websites. Ten in-depth interviews with key stakeholders were conducted in each country. **RESULTS:** The impact of the introduction of CONITEC on HTA development in Brazil has been found to be increasingly significant over the period studied. CONITEC formulates recommendations to requests for both incorporated and new health technologies. In Mexico, CENETEC's initial focus on medical equipment management has recently been expanded to medicines assessment. While there has been a clear connection between HTA outcomes and health technology incorporation decisions in the Brazilian Unified Health System (SUS), CENETEC has played an increasingly important role regarding technology incorporation in public lists of the Mexican healthcare system. In both countries, where multiple systems coexist, HTA commissions mostly followed government priorities, providing evidence to health policies. **CONCLUSIONS:** HTA can provide valuable information, at different levels, for evidence-based policies as shown in the two experiences studied. Divergences in HTA decision-making processes found were mainly rooted in differences of the types of healthcare system organizations. Caution is therefore required when conducting cross-country HTA comparative analysis.

PHP11: PRESCRIBING PATTERNS FOR UPPER RESPIRATORY TRACT INFECTIONS: A PRESCRIPTION-REVIEW OF PRIMARY CARE PRACTICE IN KOTA SETAR DISTRICT, KEDAH, MALAYSIA

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OBJECTIVES: Antimicrobial resistance is associated with irrational use of antibiotics in general practice. We aimed to assess the frequency with which patients with Upper Respiratory Tract Infections were prescribed with antibiotics and the patterns of antibiotic prescription at primary healthcare centres in Malaysia. **METHODS:** The study targeted all primary public healthcare centres in the district of Kota Setar, Kedah, Malaysia. A retrospective prescription analysis was conducted whereby prescriptions from 1st January 2014 to 31st March 2014 were screened and retrieved for antibiotics prescribed for Upper Respiratory Infections. The data was entered into Microsoft Excel spread sheet, and exported to Statistical Package for Social Sciences, version 20 for further analysis. Frequencies and percentages were used to summarize the data. The Jonckheere–Terpstra test was used to evaluate the trend of antibiotic prescription. Where significant associations were reported, effect size was calculated by using Kendall tau correlation coefficient. P

value of <0.05 was considered to be of statistical significance. **RESULTS:** For the period of three months, 123,524 prescriptions were screened and analysed. 2270 (31.8%) prescriptions contained antibiotics prescribed for all URTIs visits. Among all antibiotics, macrolides were the most commonly prescribed antibiotic, constituting of 61% (n=1404) of total antibiotics prescribed for all cases. The Jonckheere–Terpstra test revealed a statistical relationship between prescribers and the diagnosis of the disease (p=0·001). Furthermore, a weak positive trend of association was reported with FMS being more accurate in diagnosis followed by MOs and AMOs (τ=0·122). **CONCLUSIONS:** Practicing physicians should adhere to the standard treatment practices, as antibiotic use in viral aetiology is ineffective, and encourages the persistence development of resistance. A comprehensive development of national antibiotic stewardship program is recommended to ensure organised and regulated control of antibiotic use in Malaysia.

HEALTH CARE USE & POLICY STUDIES - Equity and Access

PHP12: PESQUISA NACIONAL DE ACESSO A MEDICAMENTOS NO BRASIL - PERCEPÇÃO DOS USUÁRIOS DA ATENÇÃO BÁSICA DO SISTEMA ÚNICO DE SAÚDE

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OBJETIVOS: Acesso a Medicamentos (AAM) no Brasil é um componente-chave na viabilização e na mensuração do desempenho dos sistemas de saúde. O objetivo desse estudo foi avaliar o acesso a medicamentos no âmbito da Atenção Básica do SUS na perspectiva do usuário. **MÉTODOS:** Este estudo faz parte da Pesquisa Nacional de Acesso, Utilização e Uso Racional de Medicamentos (PNAUM). É um estudo transversal realizado por meio de entrevistas com questionário semi-estruturado em 7992 usuários de 1239 serviços, localizados em 293 municípios, distribuídos nas cinco regiões geo-políticas do Brasil. Foram coletadas informações sócio-demográficas, estilo de vida, acesso e utilização de medicamentos, e auto-avaliação do nível geral de saúde. O AAM foi avaliado considerando a frequência da obtenção de medicamentos nos últimos três meses pelas seguintes categorias de resposta: Acesso Total (sempre/parcialmente), Acesso Parcial (às vezes/raramente) e Sem Acesso (nunca). Para avaliar a associação entre as variáveis e AAM foi utilizado teste qui-quadrado com significância p<0,05. **RESULTADOS:** No geral, nos últimos três meses, apenas 4,8% dos usuários entrevistados declararam não ter tido AAM no Brasil, 30,3% declararam acesso parcial e 64,9% acesso total. Foram encontradas diferenças estatisticamente significativas entre as regiões (P<0,05), com regiões Norte e Centro Oeste apresentando menores taxas de acesso. As variáveis sexo, faixa etária, cor/raça e escolaridade apresentaram diferenças estatisticamente significativas em relação ao acesso (P<0,05), com maiores taxas de AAM observadas entre indivíduos do sexo feminino, faixa etária >60 anos, raça branca/parda e escolaridade fundamental incompleto. **CONCLUSÕES:** Apesar do AAM no Brasil ter sido considerado alto, foram observadas discrepâncias regionais, demonstrando iniquidade na distribuição do acesso. Além disso, fatores sócio-demográficos foram relacionados à frequência de obtenção de medicamentos. Com isso, os princípios do SUS fundamentado na prestação de assistência universal, equânime e resolutiva à população adstrita, podem estar comprometidos pela dificuldade de acesso aos medicamentos.

PHP13: ACCESS TO HEALTHCARE AMONG INTERNATIONAL IMMIGRANTS IN CHILE: REPEATED CROSS-SECTIONAL ANALYSIS OF CASEN SURVEY 2006-2009-2011

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OBJECTIVES: This population-based study explores healthcare provision entitlement by immigrants in Chile and compare them to the Chilean-born in 2006-2009-2011. **METHODS:** We used the nationally representative CASEN surveys 2006, 2009 and 2011 (sample sizes between 70,000-90,000 households). We estimated weighted multinomial regressions to explore the association between healthcare entitlement (multinomial= public/private/other/none) and migration status (binary= Chilean-born/immigrants), crude and adjusted by demographics (age, sex, urban/rural, marital status, ethnicity) and socioeconomic status (education, household income, type of occupation). **RESULTS:** There is a modest increase in immigrants in Chile between 2006 and 2011, from around 1% to around 2% of total population. Compared to “public” provision entitlement (Fonasa, reference), immigrants are more likely to report “private” (Isapre; adjusted OR=1.97, p<0.01), “other” (adjusted OR=1.52, p<0.01) and “none” (adjusted OR=5.30, p<0.01), even after controlling for demographics. However, there are changes based on the year of the survey, immigrant respondents from 2009 and 2011 are less likely to report “other” and “none” compared to 2006. There are also significant differences by country of origin (“private” healthcare more often reported by Argentinians and Spanish; “other” more reported by Bolivian and other non-Latin Americans; “none” more reported by Colombians and other Latin Americans), even after adjusting by socio-demographics and year of the survey. **CONCLUSIONS:** There are great variations in healthcare provision entitlement among immigrants in Chile, which are largely based on the country of origin, even after controlling for several socio-demographics. These differences need better understanding in Chile for effective improvement of population access and use of healthcare.

PHP14: DETERMINANTES Y BARRERAS SOCIOECONÓMICAS DEL ACCESO A LOS SERVICIOS DE SALUD EN LAS REGIONES DE COLOMBIA

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OBJECTIVOS: Establecer los determinantes y barreras socioeconómicas del acceso a los servicios de salud en las diferentes regiones de Colombia, a partir de los datos de la Encuesta Nacional de Demografía y Salud 2010 **METODOLOGÍAS:** Para la clasificación de las barreras al acceso a los servicios del Sistema General de Seguridad Social en Salud (SGSSS) en las regiones colombianas, se tomó como apoyo lo planteado por (Aday & Anderson, 1974), (Andersen, 1995) y la metodología utilizada por (Restrepo, et al., 2006). Con el fin de estimar los determinantes del acceso a los servicios del SGSSS en la región Caribe, se elaboró un modelo logit con variable dependiente: Acceso a los servicios de salud del Sistema de Salud e independientes, sexo, estado civil, afiliación, educación, vivienda propia, área de residencia y edad **RESULTADOS:** La afiliación a un régimen de salud del SGSSS y la edad fueron los determinantes más importantes para explicar el acceso. Las principales barreras de acceso a los servicios ofrecidos por el Sistema de Salud, fueron la percepción de que su problema no era grave (36.31%), el costo del servicio de salud (10.65%), el costo del transporte (7.26%) y la no afiliación a la seguridad social de la población (7.23%). En Colombia, la principal razón por la que la población no acudió al SGSSS pese a tener un problema sanitario, fue la percepción de que su problema de salud no era grave (40%). Seguida de la percepción de que el servicio era de baja calidad (10.3%)**CONCLUSIONES:** Los resultados obtenidos en este trabajo, apoyan la teoría de los Determinantes Sociales de la Salud. En las regiones que por tradición han sido prósperas y desarrolladas, la población enfrenta menos problemas para acceder a los distintos servicios de salud ofrecidos en el SGSSS.

PHP15: EQUITY IN ACCESS TO HIGH COST DRUGS IN URUGUAY

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OBJECTIVES: The aim of this study was to determine the equity in access to high cost drugs reimbursed by the National Health System of Uruguay, between users in different geographical areas and different health organizations. Also, were determined the causes of access inequities. **METHODS:** Levels of access were determined for three cancer drugs by crossing epidemiological data and reimbursement data. Causes of inequities were determined and weighted by two instances of interview with clinical experts. **RESULTS:** Access of patients with metastatic colorectal cancer to the treatment with bevacizumab, is similar between different regions. However, the access of patients who are assisted in the public sector is lower compared to private sector. In the case of rituximab for the treatment of non-Hodgkin lymphoma and trastuzumab for advanced HER2+ breast cancer, the results seem to show less access for patients residing outside the south region compared to those living in the south region. Similarly, patients who are assisted in the public sector appear to have less access to treatment compared to patients assisted in the private sector. The main access barriers for patients living outside southern region are pathological anatomy studies, imaging and other clinical analysis necessaries to get the reimbursement of this drugs. Furthermore, patients of the public sector have a late diagnosis, then reducing access to treatments. **CONCLUSIONS:** Equitable access to high cost drugs covered by the National Health System remains an area that requires the definition of actions to address this issue. In this sense, is necessary to adapt the processes and requirements according to the characteristics of different populations and capabilities of specific institutions, including the revision of the reimbursement model for high cost drugs in Uruguay.

PHP16: GASTO DE BOLSILLO Y GASTO CATASTRÓFICO EN SALUD EN HOGARES DE CARTAGENA DE INDIAS, COLOMBIA

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OBJECTIVOS: Estimar el gasto de bolsillo y la probabilidad de gasto catastrófico de los hogares y sus determinantes socioeconómicos en Cartagena de Indias, Colombia **METODOLOGÍAS:** Estudio transversal en una muestra poblacional estratificada aleatoria de hogares de Cartagena (principal destino turístico colombiano). Se elaboraron dos modelos de regresión múltiple cuyas variables dependientes fueron gasto de bolsillo y probabilidad de gasto catastrófico en salud de los hogares, con el fin de establecer los determinantes socioeconómicos de mayor incidencia. Las definiciones de gasto de bolsillo y catastrófico fueron tomadas de la OMS. Los datos fueron procesados en Stata 12.1® y presentados en pesos colombianos (COP) y dólares americanos (U$) de 2014. **RESULTADOS:** El gasto de bolsillo promedio anual en hogares pobres fue 1.566.036 COP (U$783) (IC95% 1.117.597 – 2.014.475); en los hogares de estrato medio 2.492.928 COP (U$1246) (IC95% 1.695.845 - 3.290.011) y en hogares ricos 4.577.172 COP (U$2288) (IC95% 1.838.222 - 7.316.122). Como proporción del ingreso, el gasto de bolsillo en salud fue de 14,6%, en los hogares pobres, de 8,2% en los hogares de estrato medio y de 7% en los hogares ricos. La probabilidad de gasto catastrófico en salud de los hogares pobres fue de 30,6% (IC95% 25,6% a 35,5%), de los de estrato medio del 10,2% (IC95% 4,5% a 15,9%) y de los hogares de estrato alto del 8,6% (IC95% 1,8% a 23%). El estrato socioeconómico, la educación y la ocupación fueron los principales determinantes del gasto de bolsillo en salud y de la probabilidad de incurrir en gasto catastrófico en salud. **CONCLUSIONES:** En el sistema de salud colombiano persisten desigualdades en la protección financiera de los hogares contra el gasto de bolsillo y la probabilidad de gasto catastrófico. El presente estudio genera evidencia para revisar la política de protección social de los hogares socioeconómicamente más vulnerables.

PHP17: LA CANASTA BASICA DE MEDICAMENTOS COMO ESTRATEGIA PARA MEJORAR EL ACCESO Y COSTO DE LOS MEDICAMENTOS EN PANAMA

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OBJECTIVOS: favorecer el acceso y disponibilidad de medicamentos a los pacientes a través de lista de precios de medicamentos originales y genéricos. **METODOLOGÍAS:** en base a estudios sobre precios de medicamentos a nivel público previamente realizados, se selecciona una lista de 40 medicamentos esenciales usados para las principales morbilidades presentes en la poblacion. Se crea la Canasta Básica de Medicamentos (CABAMED) con fundamento legal, donde se incluye información de los productos declarados intercambiables o bioequivalentes por la Autoridad Sanitaria, desarrollándose una base de datos con información de precios la cual es actualizada mensualmente y publicada obligatoriamente en las farmacias privadas. El paciente observa la lista de productos medicamentosos y sus precios en la farmacia, teniendo la opción de selecionar el medicamento de su conveniencia de acuerdo al precio. **RESULTADOS:** despues de doce meses de puesta en vigencia, los registros mensuales de precios demuestran que los medicamentos originales o de referencia mantienen un precio promedio significativamente mayor que sus opciones genéricas de menor precio. Como por ejemplo la Ceftriaxona Sódica 1g IM de referencia muestra un precio promedio por vial de US$33.50 y su opción genérica de US$3.63, el Enalapril 20 mg tabletas el precio unitario por tableta de referencia es de US$1.47 contra US$0.19 del genérico, la Fluoxetina 20 mg tableta de US$2.44 versus US$0.47. **CONCLUSIONES:** la CABAMED es una estrategia para la promoción de medicamentos genéricos que permite que médicos y pacientes tengan información disponible de los precios de los medicamentos originales y sus diferentes opciones de genéricos, como mecanismo para mejorar la disponibilidad y acceso a medicamentos eficaces, seguros, de calidad y la opción más económica para la población de menores recursos.

HEALTH CARE USE & POLICY STUDIES - Health Care Costs & Management

PHP18: IMPACTO ORÇAMENTÁRIO DO EVEROLIMO E SIROLIMO PARA IMUNOSSUPRESSÃO EM TRANSPLANTADOS HEPÁTICOS NO SISTEMA PÚBLICO DE SAÚDE DO BRASIL

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OBJETIVOS: Avaliar o impacto orçamentário dos inibidores de mTOR (sirolimo e everolimo) para a imunossupressão no transplante hepático no Sistema Público de Saúde no Brasil (SUS). **MÉTODOS:** Desenhou-se uma coorte para estimar a população passível de uso dos inibidores de mTOR em 2014, considerando o número de transplantes hepáticos realizados no Brasil no período de 1998 a 2013 (dados obtidos do Sistema de Informações do SUS) e a taxa anual de sobrevida de transplantados hepáticos ao longo de 15 anos, extraída de estudo de coorte multicêntrico internacional. Adotou-se a definição de especialistas de que 80% dos transplantados hepáticos usariam esses medicamentos. Dessa população, estimou-se que 50% usariam everolimo e 50% usariam sirolimo, com dose diária de 2 mg e 3 mg, respectivamente. Por se tratar de uma análise sob a perspectiva do Ministério da Saúde, considerou-se o valor pago, em 2014, por essa instituição para a aquisição centralizada desses medicamentos. A taxa de conversão foi de US$ 1 = R$ 3,27. **RESULTADOS:** O transplante hepático no SUS foi realizado por 12.058 pacientes, entre 1998 e 2013. Desse total, 7.850 (65%) estariam vivos em 2013 e aptos a receber tratamento com imunossupressores. Considerou-se que 6.280 pacientes (80%) usariam inibidores de mTOR. O gasto anual estimado por paciente com uso do everolimo é de US$ 3.080,66 e US$ 3.047,67 com uso de sirolimo. O impacto orçamentário mostrou que no primeiro ano de incorporação o gasto total será de US$ 19.242.632,75, sendo US$ 9.673.111,10 com everolimo e US$ 9.569.521,65 com sirolimo. **CONCLUSÕES:** O estudo demonstra que a incorporação desses medicamentos não apresenta grande aporte orçamentário ao SUS, mas que deve ser ponderado frente às evidências que respaldem suas utilizações nessa população.

PHP19: DIFFERENCES IN PRICE OF MEDICINES AVAILABLE FROM PHARMACEUTICAL COMPANIES AND “JAN AUSHADHI” STORES

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OBJECTIVES: In 2008, Government of India, through Department of Pharmaceuticals, started a new initiative “Jan Aushadhi” (A hindi word literally translated as “Medicine for People”). This program envisaged making unbranded quality medicines available to poor people in the country at a reasonable and affordable price through retail outlets set up with the help of the Government. The Objectives of “Jan Aushadhi” campaign is to make available unbranded quality medicines to poor through public private partnership. As of now 2013, there were 112 “Jan Aushadhi” stores operating in 11 states across India. Objective of this study was to understand the price difference in essential medicines marketed by pharmaceutical companies and prices of same essential medicines available through “Jan Aushadhi” Stores in India. **METHODS:** A list of three anti-diabetic molecules Glibenclamide, Metformin and Glimepiride in different strengths listed in “Jan Aushadhi” price list was selected and compared with the brands manufactured by pharmaceutical companies and available in the market. The absolute price difference was calculated. **RESULTS:** The prices of medicines available from “Jan Aushadhi” stores for Glibenclamide 2.5 mg and 5 mg tablets, Metformin 500 mg and 1000 mg tablets, Glimepiride 1 mg and 2 mg tablets were compared with brands available in market. The price difference for Glibenclamide 2.5 mg ranged from INR 0.57 to 4.02 for a pack of 10 tablets, for Glibenclamide 5 mg ranged from INR 0.92 to 6.47. For Metformin 500 mg the price difference ranged from INR 0.42 to 18.47 and for Metformin 1000 mg price difference was INR 7.23 to 28.14 respectively. For Glimepride 1 mg price difference ranged from INR 2.13 to 55. 28 and Glimepride 2 mg the difference was INR 2.49 to 105.59 **CONCLUSIONS:** Substantial price differences exist between a few brands available in Market and medicines available from “Jan Aushadhi” Stores.

PHP20: RETOS METODOL"GICOS DE LAS POLÍTICAS DE FIJACI"N DE PRECIOS DE REFERENCIA PARA GRUPOS DE MEDICAMENTOS DE UTILIDAD TERAPÉUTICA SIMILAR

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OBJECTIVOS: Identificar cuáles son los principales aspectos en los que una institución reguladora del sistema de salud debe poner su atención, si está interesado en adoptar una política de fijación de precios para grupos farmacéuticos. **METODOLOGÍAS:** se realizó una revisión de experiencias de países dónde se han adoptado políticas de fijación de precios para grupos farmacéuticos de similar utilidad terapéutica, revisando que métodos han desarrollado para la conformación del grupo y su posterior valoración, se indagó en particular la experiencia del Ministerio de Salud en Colombia, identificando las necesidades técnicas y regulatorias de la implementación de la política. **RESULTADOS:** los retos metodológicos que se encuentran en la construcción del proceso de agrupación de medicamentos y fijación de precios para grupos son: 1. El grupo debe ser conformado de manera que se garantice que los medicamentos que lo componen son similares terapéuticamente y por lo tanto pueden tener un precio común. 2. La información necesaria para la construcción del grupo es: indicaciones de los medicamentos, clasificación ATC, registros sanitarios, efectividad y seguridad, entre otros. 3. Existen diferentes opciones metodológicas para la fijación del valor del grupo y 4. Qué esperar de este tipo de políticas ¿efectivamente se ha conseguido el uso racional de tecnologías a través de estas medidas? **CONCLUSIONES:** Entre las mejores prácticas para desarrollar una metodología de fijación de precios para grupos farmacológicos está la construcción de dos procesos técnicos articulados al servicio de proveer insumos y análisis para la operación de este tipo de políticas, el primero que establezca la conformación del grupo desde el punto de vista de su comparabilidad terapéutica y el segundo que realice los análisis de precios para el establecimiento del valor óptimo para el grupo de medicamentos. Todo lo anterior en el marco de una metodología transparente para todas las partes interesadas.

PHP21: POTENTIALLY INADEQUATE MEDICATION (PIM) EFFECTS ON ADVERSE DRUG EVENTS (ADES) AND COSTS: HOSPITAL UNIVERSITARIO AUSTRAL (HUA)

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OBJECTIVES: To measure ADEs in the elderly due to PIM using standard instruments (Beers Criteria-BC, STOP-START), and related costs in HUA. **METHODS:** A cross sectional discharges study, obtained results of each instrument (BC, STOP, START) by trained pharmacist, from EHR with CPOE data. Symptomatic ADEs (Near Misses excluded) and PIM prevalence –defined as the proportion (+) screens, for at least one medication indication per discharge. Confounding variables: age, sex, area of admission, poly-pharmacy, ATC group, Diagnosis ICD9CM, ALOS, Charlson S., Katz functional scale, and in-hospital mortality. ADEs prevalence OR (odds ratio) and (95%CI). Stratified and logistic regression analyses (SPPS21), adjusted ADEs (OR ADJ), discharge costs (I$) per stay (mean, SD; median, quartiles) for ADEs (+) and (-) extracted (U$D 1:Arg$ 8).**RESULTS:** 586 stays among >65 yrs old pts., 3443 prescriptions (06-07/2014), 57,16% (53,13-61,11%) females, mean age 82,6 (SD 9,7) yrs. old, with ALOS 8,21 (SD 7,60) days; 5,88 meds (SD 1,93), with 80,7% had >4 drugs, and 17,7% mortality, was found. PIM (+) were 61,4% (95%CI 57,4-65,3%) BC (+); 65,4% (61,4-69,1 %) STOP (+); 27,6% (24,2-31,4%) START (+), all ADEs (+) p<0,05 vs. ADEs (-). Sex, admission site, prior surgery and Katz criteria increased the OR (data not shown, all p<0,05); admission site (wards, ICU, CCU, p trend <0,01). 89 ADEs (15,5%) risk according to BC (+) was OR ADJ =1,49 (95% CI 1,68-4,66); to STOPP (+) OR ADJ 1,17 (0,61-2,24); and to START (+) OR ADJ 0,68 (0,37-1,24) all p>0,05. ALOS risk was OR ADJ 1,03 (1,005-1,058), p 0,020. Mean I$ ADEs+ = 75 108 U$D (SD 194 515), Median =7 405 U$D; ADEs(-) (N=497): mean 37 866 U$D (SD 88 495), Median = 11 814 U$D. **CONCLUSIONS:** High PIM prevalence was found, PIM increased ADEs as expected, but short of significance; with a significant effect of covariates; costs and ALOS increase among ADEs + discharges. Larger sample size is required for strict ADEs definition used here.

PHP22: IDENTIFICAÇÃO SISTEMÁTICA DE LACUNAS DE PESQUISA NO ÂMBITO DA SAÚDE MENTAL PELO MINISTÉRIO DA SAÚDE DO BRASIL

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OBJETIVOS: O Ministério da Saúde possui um papel central no financiamento de pesquisas que atendam às necessidades de geração de evidências científicas na área de saúde pública e que proponham ações voltadas ao enfrentamento dos problemas de saúde relevantes no Brasil. Neste sentido, o objetivo deste trabalho é identificar lacunas de pesquisa em saúde mental, ênfase em depressão, considerado um dos temas prioritários. As lacunas identificadas respaldarão a elaboração de editais de pesquisa a serem financiados pelo Ministério da Saúde. **MÉTODOS:** Para identificar prioridades de pesquisa no tema foram acessados o sítio eletrônico da área de Saúde Mental do Ministério da Saúde e documentos institucionais. Foram realizadas buscas estruturadas para revisões sistemáticas, metanálises e estudos de custo-efetividade publicados nos últimos dez anos em quatro bases de dados – Pubmed, The Cochrane Library, Lilacs e Prospero. Objetivando evitar duplicidade de financiamento de pesquisas, acessou-se ainda o sistema do Ministério da Saúde – Pesquisa Saúde. Os estudos recuperados foram triados com base na leitura dos títulos e resumos. As lacunas foram identificadas após leitura dos artigos incluídos, e as perguntas de pesquisa, formuladas.**RESULTADOS:** Foram encontradas 336 revisões sistemáticas e metanálises. Após triagem por títulos e resumos, foram incluídas 23 referências. As lacunas de pesquisa identificadas referiam-se às características clínicas e epidemiológicas, diagnóstico e tratamento da depressão, sendo relativas à: identificação de fatores de risco para depressão na infância, na adolescência e na gestante; prevalência da depressão associada a outras comorbidades; associação entre depressão e exposição a pesticidas em trabalhadores rurais; associação entre depressão e uso de drogas ilícitas; efetividade das intervenções no combate à depressão e causas de abandono ao tratamento. **CONCLUSÕES:** A

metodologia para a identificação das lacunas foi inovadora, factível e eficaz. A busca sistemática recuperou estudos que abordaram a depressão no Brasil e que apontavam lacunas de pesquisas nessa área.

PHP23: PHARMACEUTICAL COST-CONTAINMENT STRATEGIES – OPINIONS OF THE PHARMACEUTICAL INDUSTRY AND HTA BODIES IN LATIN AMERICA

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OBJECTIVES: Limited pricing controls have led to high costs for pharmaceuticals in Latin America. Therefore, we aimed to determine the opinions of local experts regarding the cost-containment strategies used in their country. **METHODS:** A questionnaire was created asking respondents to: provide details of the cost-containment strategies used; assess the relative strengths and limitations of reference pricing and Health Technology Assessment (HTA); and describe the main barriers to access of innovative therapeutics in their country. The questionnaire was sent to select representatives of the pharmaceutical industry, HTA bodies, public health organisations and academia across Latin America. **RESULTS:** The response rate was 14% (n=7); with representatives from Brazil (n=3), Chile (n=2), Colombia (n=1) and Mexico (n=1). Across the respondents' resident countries, a variety of cost-containment strategies were reported; use of HTA was reported across all countries, in addition to a mixture of internal/international reference pricing, and direct discount strategies. Disparity in the perceived effectiveness of the cost-containment strategies was noted, with responses ranging from 'Somewhat ineffective' (Mexico) to 'Very effective' (Brazil, Chile). The majority of respondents (71%, n=5) agreed that reference pricing was at least 'Somewhat effective', although concerns were raised as to how this methodology considered the specific requirements of the country. HTA was reported to be an effective tool to guide pricing decisions and assess the budget impact of therapeutics (71%, n=5); however, the lack of autonomy in current organisations was a notable limitation. All respondents agreed that the establishment of a centralised HTA body was feasible in their country. **CONCLUSIONS:** Despite the low response rates, good representation across Latin America was achieved. There was a clear disparity in opinion between what represented the most effective cost-containment strategy and the relative appropriateness of each. Although HTA was regarded as a feasible and effective option for the future, a number of issues remain to be resolved.

PHP24: IMMUNISATION IN LATIN AMERICA: FACTORS PREVENTING UPTAKE OF COST-EFFECTIVE VACCINES

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OBJECTIVES: An overwhelming body of evidence demonstrates vaccination as a highly clinical- and cost-effective health intervention. Vaccine uptake in Latin America (LatAm) has advanced considerably over recent years; however, despite the wealth of evidence for cost-effectiveness of immunisation, vaccine-access is often incomplete, thus considerable resources are expended treating preventable diseases. Here we investigate factors limiting vaccine uptake with the aim of improving vaccine coverage. **METHODS:** Percentage population coverage for 8 commonly used vaccines (BCG, DTP1, DTP3, HepB3, Hib3, MCV, Pol3, Rubella1; data source: WHO) in each LatAm country were compared to the average coverage, and the mean variation-from-average calculated to produce a summary statistic for the variable of vaccine coverage per country. Correlations between this variable and potential contributory factors were analysed (data sources: World Bank/Transparency International) using Pearson's r coefficient. Factors investigated were indicative of a country's wealth (GDP/capita), development (access to electricity), population size, urbanisation (% rural population) and corruption (corruption perception index). **RESULTS:** Initial analyses identified countries with consistently poor vaccine coverage. The 5 countries with lowest coverage were Paraguay, Bolivia, Haiti, Dominican Republic and Venezuela. Central American countries such as Saint Lucia, Nicaragua and Grenada, and South American countries including Guyana, Brazil and Uruguay, had good coverage levels. Investigations into factors contributory to poor vaccine uptake demonstrated moderate correlations between vaccine coverage and increased corruption (r=0.47), low urbanisation (r=0.31) and low GDP/capita (r=0.32). Correlations were poor between vaccine uptake and development (r=0.00) and population size (r=-0.04). **CONCLUSIONS:** Based on these initial investigations, methods to increase vaccine uptake, reduce disease burden and increase healthcare cost-effectiveness in LatAm may include better access to vaccines through charitable/WHO initiatives to reduce disparities between rich/poor countries, and improved vaccine access in rural areas. However, additional analyses are required to further investigate each of these factors, and to consider additional contributory factors.

PHP25: INSTITUTIONAL DEVELOPMENT PROGRAM OF THE BRAZILIAN NATIONAL HEALTH SYSTEM

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OBJETIVOS: Apresentação do Programa de Apoio ao Desenvolvimento Institucional do Sistema Único de Saúde (PROADI-SUS) como meio de desenvolvimento institucional do SUS através de parcerias entre o Ministério da Saúde (MS) e as entidades de saúde de reconhecida excelência. **MÉTODOS:** O PROADI-SUS permite que os valores de isenção de impostos dos assim chamados Hospitais de Excelência possam ser convertidos de forma positiva quando aplicados à pesquisa e ao treinamento de recursos humanos. Assim, as isenções podem alcançar todos os tipos de tributo (impostos, taxas, contribuições de melhoria, empréstimos compulsórios e contribuições especiais). Cada esfera de Governo (federal, estadual e municipal) legisla sobre a isenção dos tributos de sua competência. A apresentação e a análise se darão conforme Portaria nº 1.826 / 2012 que veio como uma das regulamentações da Lei 12.101/2009. Para isso o Ministério da Saúde define e divulga anualmente os temas e objetivos prioritários para a elaboração de projetos de apoio ao desenvolvimento institucional do SUS, a serem executados em um período de três anos. **RESULTADOS:** No âmbito da avaliação e gestão em saúde, a entidade de saúde, reconhecida excelência, está apta a apresentar projetos PROADI-SUS

no âmbito da Avaliação e Incorporação de Tecnologia no SUS. No triênio 2012 – 2014 foram contempladas 5 instituições no programa. Vários projetos foram aprovados envolvendo um valor estimado de R$ 90.097.871,53 reais. **CONCLUSÕES:** O programa Proadi-SUS favorece ao SUS a construção de conhecimentos e práticas sustentáveis ao sistema de saúde, por meio de uma parceria público-privada, entre o Estado e a sociedade. Nesse triênio (2012 – 2014), cerca de 3660 pessoas foram especializadas ou qualificadas em 2013 e serão concluídos até 2014, 37 estudos e 2 pesquisas. Os resultados desses projetos orientaram tomada de decisões de gestores, assim como a melhoria dos serviços prestados a sociedade com profissionais especializados e qualificados.

PHP26: CARACTERIZACIÓN DE PACIENTES CON MÚLTIPLES ENFERMEDADES CRÓNICAS DESDE LA PERSPECTIVA DEL ASEGURAMIENTO EN COLOMBIA

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OBJECTIVOS: analizar el comportamiento de pacientes con múltiples enfermedades crónicas instauradas en una aseguradora colombiana. **METODOLOGÍAS:** se realizó una identificación de pacientes con más de una enfermedad crónica instaurada a partir de la información de consumos y usos de una aseguradora colombiana para el año 2013. Con base en los códigos CIE-10 se identificaron los pacientes con enfermedades crónicas como: diabetes, cardiovasculares, osteoarticulares, cáncer, degenerativas, respiratorias, digestivas, VIH y de alto costo y baja prevalencia. Los pacientes fueron agrupados en categorías de dos, tres y cuatro o más enfermedades concomitantes. Además, fueron caracterizados a partir de variables demográficas, costos totales y comorbilidades asociadas. **RESULTADOS:** los pacientes con múltiples enfermedades crónicas representan el 1,35% de los afiliados, con una edad promedio de 59,96 años, siendo el 65,69% mujeres. El costo total de atención de los pacientes significó el 13,21% del costo total en salud del año 2013. Se pudo estimar un aumento de 0,56 veces del costo promedio adicional a la suma de los costos de las enfermedades cuando se encuentran adicionadas. La enfermedad más frecuente fue diabetes, la cual se presenta asociada a otras enfermedades en el 74,33% del total de población con comorbilidad y representando el 65,91% del costo total de la población con comorbilidad, destacándose la asociación con enfermedades cardiovasculares, osteoarticulares y digestivas crónicas. **CONCLUSIONES:** se demuestra cómo la multienfermedad crónica es un factor de interés para el aseguramiento. Aunque esta se presenta en un pequeño número de pacientes genera unos costos importantes que, por la diversidad de la población, justifican desarrollar estrategias de gerenciamiento personalizado de la enfermedad.

PHP27: SCOPING REVIEW OF PUBLICLY AVAILABLE PERFORMANCE INFORMATION IN ARGENTINA, CHILE AND COLOMBIA

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OBJECTIVES: The release of performance information to the public has been promoted in order to help improve the quality of care but performance measurement is scarce and faces many challenges in the design and implementation. To date, it has not been explored to what extent Latin American countries generate and release performance information and the rationale behind this. **METHODS:** Public performance information on quality of care in Argentina, Chile and Colombia was reviewed. More specifically it was considered (1) whether a mandate exists for collecting such information; (2) who collects the information; (3) what type of information is available; and (4) the intended purpose. **RESULTS:** All three countries have some form of measurement of performance as well as varying degrees of release to the public. Whereas in Colombia and Chile the main purpose of performance information is to facilitate choice among users, in Argentina the rationale for performance measurement efforts are employed for internal purposes, to guide quality assurance and quality improvement within health care organizations. There are varying degrees of accessibility to the information that is available. Contrary to Argentina, the National Superintendence of Health for both Chile and Colombia provides a single source of all the compiled information of performance measurement. It provides individual performance indicators of all health providers and a list of accredited institutions. A list of accredited institutions can be accessed directly through national accrediting bodies. **CONCLUSIONS:** Centralization of results is mandatory for quality of care performance and financial status of the health organizations. Chile and Colombia exhibit best practice in this area. In Argentina there is a clear gap between the availability of a clear, comprehensive assessment of the quality of care for health in one trusted source. Appropriate policy and funding support should focus on building capacity for quality improvement and health care information infrastructure.

PHP28: COSTOS UNITARIOS DE SERVICIOS BRINDADOS POR UNA UNIDAD DE SALUD DE LA FAMILIA: EVIDENCIA EN EL CASO PARAGUAYO

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OBJECTIVOS: Determinar el costo unitario promedio de los servicios brindados durante el año 2012 por una Unidad de Salud de la Familia (USF) de una comunidad periurbana de un municipio en Paraguay.**METODOLOGÍAS:** Estudio transversal descriptivo retrospectivo Primeramente se determinó las principales actividades que realiza la USF, posteriormente la dotación de recursos humanos, con sus remuneraciones y la carga horaria respectiva, el tiempo que lleva la realización de cada actividad realilzada, y los medicamentos utilizados, con la descripción y precio unitario, y se identificó los otros gastos operativos. Vinculando el costo total con la cantidad de servicios producidos da como resultado el costo unitario promedio. **RESULTADOS:** El gasto operativo anual total es de U$ 84.173, siendo la estructura del gasto, recursos humanos 83%, medicamentos e insumos 13% y otros gastos generales 4%. El costo unitario de los servicios: Consultas Generales U$ 4,4.-, Consultorio de Urgencias U$ 6,1.-, Consulta Extramural U$ 6.-, Charlas en la

Escuela U$ 6,4.-, Informes a la comunidad U$ 25,7.-, Migas Ambientales U$ 115,8.-, toma de muestras de PAP U$ 3,4.-, Visitas domiciliaras U$ 8,8.- entre las principales actividades. La eficiencia combinada calculada es de 40%.**CONCLUSIONES:** La USF opera al 40% de su capacidad potencial. La producción de la USF podría aumentar con su dotación de personal actual, lo cual se vería reflejado menores costos unitarios. No se ha analizado la calidad de los servicios brindados, la demanda de atención ni la cobertura, aspectos que podrían contribuir a ampliar los elementos de juicios para tener una visión más integral. La capacidad ociosa resultante puede verse como una fuente potencial de recursos que, movilizados en la dirección apropiada, puede ofrecer soluciones importantes en el incremento de cobertura con equidad y eficiencia en el camino del logro de la cobertura universal.

PHP29: ANALISIS DEL IMPACTO ECONOMICO DE LA ADOPCION DE UNA TECNICA MINIMAMENTE INVASIVA PARA LA REPARACION DE HERNIA VENTRAL. PERSPECTIVAS DE 4 PAISES DE LATINAMERICA

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OBJECTIVOS: Demostrar el impacto clínico y económico que representaría para un tercer pagador la adopción de una técnica de reparación ventral de hernia por vía laparoscópica (RHVL) con utilización de malla.**METODOLOGÍAS:** Se realizó una búsqueda sistemática de literatura para recolectar datos clínicos y económicos globales para la RHVL y se construyó un modelo de impacto presupuestario (BIM – Budget impact model) en donde se estimaron los impactos clínicos y económicos que representaría introducir RHVL reemplazando la técnica convencional, considerando la perspectiva del pagador. Como parte del modelo se incluyeron costos médicos fijos (equipamiento-EQ) y variables (consumibles-DM, días camas-HZ, tiempo de quirófano-TQ) así como las consecuencias clínicas (recurrencia-Rec. e infección del sitio quirúrgico-SSI). Se simulo una cohorte de 30 pacientes a lo largo de un año en 4 (cuatro) países de Latinoamérica (LA) Argentina (AR) Brasil (BR) Colombia (CO) y México (MX). Los resultados cuantitativos del impacto económico se expresan en dólares americanos (USD) y diferencia (vs. Técnica abierta) en términos %. **RESULTADOS:** : Los resultados de la simulación mediante BIM para AR/CO/BR/MX se expresan en Ahorros clinicos generados por disminución de Rec. (9%) USD 21924/12893/17021/14323; menor frecuencia de ISQ (10%) USD 5403/1518/6959/836; reducción en días de HZ (promedio 2,9 dias) USD 62001/31222/24892/24911, ademas se obtuvieron resultados netos de USD 87810/34833/36008/15714, que superan los costos de los DM USD 6169/9805/17568/24343. **CONCLUSIONES:** El BIM permitió demostrar tanto los beneficios clínicos como económicos y generar potenciales ahorros netos al adoptar una técnica de RVHL, estos debidos a la disminución en la frecuencia de recurrencia de la hernia, menor ISQ y reducción de HZ. Existe vasta evidencia internacional, que demuestra los beneficios tanto clínicos como económicos derivados de la adopción de una técnica de mínima invasión, los resultados de nuestra investigación confirman los hallazgos publicados y deberían servir para promover la conversión de cirugía abierta a RHVL.

PHP30: EVALUACIÓN ECONÓMICA DEL USO DE LA GASA SINTÉTICA FRENTE A LA GASA DE ALGODÓN DE PIEZA ÚNICA EN EL MANEJO DE HERIDAS EN COLOMBIA

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OBJECTIVOS: realizar una evaluación económica que compare el uso de la nueva opción de tratamiento, gasa sintética estéril, frente a la alternativa más usada, gasa fabricada intrahospitalariamente, en el manejo de pacientes con heridas, en términos de costos, en Colombia. **METODOLOGÍAS:** por medio de una minimización de costos se identificó el costo específico y detallado de la fabricación intrahospitalaria de una gasa de algodón promedio, que se utiliza en los servicios de hospitalización y urgencias. Para ello se empleó la metodología de microcosteo tomando en cuenta los tiempos de corte y empaque; esterilización; almacenamiento y distribución; recurso humano; equipos; insumos y demás recursos utilizados, a través de visitas periódicas a un hospital de II nivel de la red pública de Bogotá. **RESULTADOS:** el costo por empaque de cinco gasas fabricadas intrahospitalariamente es de $700,75 pesos, dividido en $124,48 por mano de obra, $389,31 por insumos y materiales, $6,27 de equipos y $180,69 por servicios generales. Este último es el que más influye en el costo de la gasa, principalmente por los costos de servicios de gas natural, mantenimiento de autoclaves y costos de energía. En general, el costo es ligeramente superior en comparación con las gasas sintéticas prefabricadas, que tienen costos que oscilan entre $350 y $550 pesos. Teniendo en cuenta las tasas de recambio de la gasa y el tiempo de curación (días) en heridas grado 1 y 2, se estima que el tiempo de curación con gasa sintética puede ser, en promedio, de hasta tres días menos, según lo expresado por los expertos consultados. **CONCLUSIONES:** el empaque de cinco gasas sintéticas es menos costoso que los fabricados intrahospitalariamente, con una diferencia de $170,75. Además, se destacan beneficios de la gasa sintética, como su adaptabilidad, flexibilidad, fácil manipulación, menos probabilidad de contaminación y mejor adhesión.

PHP31: DETERMINAÇÃO DO IMPACTO ORÇAMENTÁRIO NO MODELO DE PAGAMENTO DE MEDICAMENTOS EM UMA OPERADORA DE PLANOS DE SAÚDE: BUSCANDO NOVAS ESTRATÉGIAS PARA MINIMIZAR OS CUSTOS

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OBJETIVOS: Determinar o impacto orçamentário com a mudança no modelo de pagamento dos medicamentos, resguardando o padrão de qualidade estabelecido em uma Operadora de Planos de Saúde (OPS) em Fortaleza, Brazil. **MÉTODOS:** Foi realizada em janeiro/2015 uma análise de diferentes cenários farmacoeconômicos da migração dos preços Tabelados de medicamentos que possuíam cadastros como Referência e Similares para seus equivalentes Genéricos e vice-versa, sob a perspectiva da OPS. Somente custos diretos foram considerados em Reais ($) e como fonte de precificação o Brasíndice. Analisou-se o equivalente de cada

medicamento em 2014 em na rede hospitalar conveniada à OPS para cálculo do impacto com a mudança para o preço cambiável. Estabeleceram-se critérios de qualidade na análise dos laboratórios como padrões, a saber: ausência de queixas técnicas/recall, maior portfólio no mercado, maior tempo de utilização e testes de qualidade seriados. **RESULTADOS:** Do Rol de medicamentos padronizados na OPS, apenas 597 tinham outra apresentação comparável para análise do custo e destes, 248 (41,54%) foram Genéricos que tiveram cambialidade para o preço de outro Genérico que preenchia os critérios de qualidade estabelecidos. Nessa situação, cabe a ressalva que não haveria minimização no custo, e sim incremento de R$361.840,19/ano. A maior redução se deu entre Referência para Genéricos (152;25,46%), com economia de R$3.672.313,49/ano. Como na mudança dos Similares para Genéricos (19;3,18%) verificou-se um cenário positivo de R$138.692,12, aliada à busca pela qualidade, a OPS optou em não ter mais Similares do seu Rol. Avaliando todos os cenários, obteve-se uma perspectiva de economia, utilizando o de maior custo-minimização, com total de R$2.571.255,59. Destaca-se que 49,41% deste valor foram dos quimioterápicos.**CONCLUSÕES:** Os resultados apresentaram um impacto orçamentário significativo no custeio dos medicamentos da OPS, sinalizando a mudança para parametrização do preço do medicamento Genérico no Brasil, uma forma de reduzir o alto custo assistencial que hoje é vivenciado.

PHP32: EVALUACIÓN ECONÓMICA DEL USO DE UN PAQUETE DE TRES TORUNDAS DE ALGODÓN ESTÉRILES FRENTE A TOALLAS IMPREGNADAS CON SOLUCIÓN ANTISÉPTICA COMO ESTRATEGIA DE ANTISEPSIA EN VENOPUNCIÓN

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OBJECTIVOS: realizar una evaluación económica que compare la alternativa de antisepsia más usada frente a una nueva opción de manejo (empaque de tres torundas de algodón estériles), en términos de costos, como estrategia de antisepsia previa a la venopunción. **METODOLOGÍAS:** se identificó y estimó el costo específico y detallado de la fabricación intrahospitalaria de torundas de algodón con o sin esterilización, que se utilizan en los servicios hospitalarios. Para estimar dicho costo, se utilizó una metodología de microcosteo, tomando en cuenta los tiempos de cada proceso, el recurso humano y los insumos utilizados. La selección de información se obtuvo a través de visitas periódicas a un hospital de II nivel de la red pública de Bogotá, contando con el apoyo de las áreas de unidades funcionales y costos. Según la consulta realizada a expertos, un paciente tratado utilizaría tres torundas de fabricación intrahospitalaria y para las sintéticas un empaque de tres torundas. **RESULTADOS:** el modelo de microcosteo ABC arroja un costo unitario por torunda de algodón fabricada intrahospitalariamente sin esterilizar de $71,58 pesos, de los cuales $42,5 son de mano de obra y $29 de algodón y demás insumos. Además, se estima un costo de esterilización de $10 pesos. Por ende, la torunda esterilizada tiene un costo total de $81,58; la cual es más costosa que la torunda sintética, la cual tiene un costo de $49,5 pesos. De igual manera, por paciente tratado el costo de la torunda de fabricación intrahospitalaria tiene un costo de $244,75 mientras para empaque de tres torundas sintéticas sería de $152,85 pesos. **CONCLUSIONES:** el empaque de tres torundas sintéticas de Tecnoquímicas es menos costosa que las fabricadas intrahospitalariamente, con una diferencia de $32,03 pesos. La diferencia por paciente asciende a $91,9, lo cual pone de manifiesto el ahorro de recursos que representa su uso.

PHP33: O PROCESSO DE CONTRATUALIZAÇÃO DO HOSPITAL UNIVERSITÁRIO DA UFJF NO CONTEXTO DO SUS

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OBJETIVOS: Avaliar a contratualização, no contexto do SUS, a partir do processo de contratualização do Hospital Universitário da Universidade Federal de Juiz de Fora (HU/UFJF) com a Secretaria de Saúde de Juiz de Fora (SS/PJF) e do uso de indicadores para sua análise. **MÉTODOS:** A estratégia principal é o estudo de caso, com triangulação das técnicas de pesquisa bibliográfica, pesquisa documental e uso de indicadores para acompanhamento do contrato. Foi feita a avaliação do contrato e o monitoramento dos indicadores aplicados: o PTP (Percentual sobre o Total de Procedimentos Pactuados) e o PQD (Percentual do Quantitativo Distribuído). Utilizou-se a produção ambulatorial apresentada pelo HU/UFJF entre os anos de 2009 a 2013. **RESULTADOS:** Os resultados parciais mostram que, em 2010, a instituição não atingiu o percentual PTP de 100%, ou seja, não executou a totalidade dos procedimentos contratualizados, demonstrando capacidade deficitária em realizar os procedimentos contratualizados. Quanto ao PQD, em quase todos os meses de 2010 superou o pactuado, mostrando elevada produção. No ano de 2011, o indicador PTP mostra queda quanto ao cumprimento dos procedimentos pactuados. Em relação às consultas especializadas, também ficou evidente a produção excedente do HU/UFJF, em relação ao quantitativo distribuído dos procedimentos pactuados. **CONCLUSÕES:** O uso de indicadores mostrou-se útil e eficaz para avaliar o desempenho da instituição prestadora, fornecendo informações importantes para a gestão. A análise dos indicadores apresenta um cenário de desempenho ainda em desequilíbrio, mostrando elevadas produções de quantitativos distribuídos - seja na parte ambulatorial, ou nas consultas especializadas - e, ao mesmo tempo, o não cumprimento das pactuações de alguns procedimentos. Apesar disso, a instituição analisada apresentou evolução nos dados obtidos no período, demonstrando estar no caminho certo rumo a um cenário de equilíbrio.

PHP34: CAMBIO DE COPAGO DE MEDICAMENTOS EN ESPAÑA Y DESIGUALDAD

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OBJECTIVOS: Medir los efectos del cambio de co-pago de medicamentos vigente en España desde Julio 2012 sobre la equidad en el acceso. Los pensionistas, que antes no pagaban, han de pagar un 10% del precio con límite mensual de aportación en función de la renta. **METODOLOGÍAS:** Muestra aleatoria de unas 64.000 personas cubiertas por el sistema nacional de salud (SNS) en Canarias, España, estratificada por áreas de salud (7) y condición de activo o pensionista. Para cada individuo se ha recogido toda la

información longitudinal de los medicamentos dispensados que habían sido prescritos por el SNS desde un año antes hasta un año después de la entrada en vigor del cambio regulatorio (unos 2.4 millones de registros de dispensaciones). La concentración en la financiación se ha medido con el índice de Gini y la curva de Lorenz, comparando los dos periodos post y pre regulación. **RESULTADOS:** La concentración del gasto privado ha disminuido ligeramente, el índice de Gini ha pasado de 0.69 a 0.66. Los resultados sobre el cambio de consumo (y financiación) asociado a niveles de renta están pendientes de ulteriores análisis. Para la fecha del ISPOR estarán disponibles. **CONCLUSIONES:** La financiación privada de medicamentos ambulatorios prescritos en el sistema sanitario público en España ha reducido su concentración después de la instauración de nuevos esquemas de copago. Esto puede ser debido a la operatividad de los límites máximos de aportación mensual, modulados por renta individual.

PHP35: STUDY ON QUALITY OF NURSING CARE AND ASSESSMENT OF SAFETY

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OBJECTIVES: The aim of the study was to assess nursing care and service safety and its effective factors as well as identify improvement approach in the future them. **METHODS:** We adhered in our study the guideline on treatment and diagnose of common disease of Mongolia, health technology MNS46215208 treatment and diagnostic common acts, policy on develop human resource in the health sector 2010-2014, strategic directions of nursing and midwifery care and service 2011-2015, WHO guideline and standards. **RESULTS:** This study has involved 418 nurses who work in the hospitals I, II, III level of the capital city and countryside and 0.2% (5) of them were men and 99.8% (413)were women. Percent of nurses who participated in the study was 80.6%, 97% of nurses who work in the hospital I level and 58% of the nurses who work in the hospital II level as well as 47% of nurses work in the hospital III level are only giving injection ($p<0.05$). **CONCLUSIONS:** Nurses' work and obligation often based on documents and 80% of the work is spent for giving injection. Thus nursing care can not be serviced in the very essence. Nurses' average grade of general knowledge was 56.8%. nurses had 43.4% who work in the hospital I level, nurses had 50.1% in the hospital II level and nurses had 78.9% in the hospital III level. It shows that rising hospital level, their knowledge is even rising (p 0.001).Nurse's job description which is adhering in Mongolia is not expedient. Their work schedule and obligation have to be reformed. Nurse's salary, supplement, work environment and social issue should be considered and decided as well as promote sustainable work environment.

PHP36: IMPLICAÇ'ES ENTRE OS GASTOS COM A PRODUÇÃO AMBULATORIAL EM MÉDIA COMPLEXIDADE E À ATENÇÃO BÁSICA

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OBJETIVOS: Identificar associações entre variáveis que possam indicar a variação de gastos com a produção ambulatorial em média complexidade em um estado brasileiro. **MÉTODOS:** Este foi um estudo ecológico, analítico - observacional, com uma analise comparativa, onde se avaliou a associação entre os gastos aprovados com procedimentos ambulatoriais em média complexidade e a cobertura da Estratégia Saúde da Família, entre outras variáveis representativas da disponibilidade de exames em média complexidade, dos recursos humanos e financeiros. A população do estudo foram 853 municípios do estado de Minas Gerais agregados por micro regiões no ano de 2014. **RESULTADOS:** Em nossa análise encontramos os valores aprovados com procedimentos ambulatoriais em média complexidade de correlação positiva e estatisticamente significativa com as variáveis de disponibilidade de exames como mamografia, raio x, ultrassonografia e PIB per capita; e correlação negativa e ainda significativa com a Cobertura da Estratégia da Saúde da Família. **CONCLUSÕES:**Explorar a interface dos gastos em média complexidade com outras variáveis em diferentes estados, pode permitir a elaboração de hipóteses relativas à otimização dos recursos que podem ser testadas em futuros estudos longitudinais.

PHP37: ANÁLISIS DEL MODELO DE TOMA DE DECISIONES SOBRE COBERTURA DE MEDICAMENTOS EN CHILE

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OBJECTIVOS: Describir y analizar el proceso de toma de decisiones sobre cobertura financiera de medicamentos en el sistema público de salud en Chile. **METODOLOGÍAS:** Tomando como base el marco conceptual de Hutton se identificaron los ámbitos a analizar. Se utilizaron fuentes de evidencia primaria y secundaria. Se realizó un levantamiento de información sobre Programas del sector público que incluyen cobertura de medicamentos. Se realizó una revisión documental de reglamentos y orientaciones de programas, identificando a 25 informantes claves que fueron entrevistados para recoger antecedentes adicionales. Finalmente se elaboró una categorización de los tipos de proceso encontrados. **RESULTADOS:** Se observan varias instancias de decisión de cobertura en distintas áreas y niveles dentro de la autoridad sanitaria, identificándose distintos modelos de toma de decisiones. Sólo algunos Programas han incorporado formalmente el uso de evidencia en su proceso de toma de decisiones. En la mayoría de ellos la decisión de cobertura carece de un proceso claro y existen amplios espacios de discrecionalidad. La implementación de las decisiones se lleva a cabo en su mayoría a través de presupuestos silo. **CONCLUSIONES:** El proceso de toma de decisión de cobertura de medicamentos en Chile corresponde a un modelo descentralizado. El sistema de salud podría beneficiarse de avanzar en la definición más transparente de sus procesos y la incorporación de herramientas de ETESA.

PHP38: CONSIDERATIONS FOR THE ADOPTION OF THE WHO-CHOICE COST-EFFECTIVENESS THRESHOLD IN LATIN AMERICA

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OBJECTIVES: Health Technology Assessment (HTA) is sporadically established in Latin America, and there are few examples of formal cost-effectiveness thresholds in place. Some countries refer to the World Health Organisation (WHO)-CHOICE threshold of 3x GDP per capita for guidance. This analysis explores the appropriateness and stability of this threshold in the rapidly developing region of Latin America. **METHODS:** Current GDP per capita data, measured in international dollars, were taken from the International Monetary Fund database for the years 2000–2014. Time to the threshold doubling was compared at the country level, and an overall comparison between Latin America, Asia, the G7 group and the global average was performed. The calculated 2013 values of 3x GDP in Latin American countries were compared with the WHO-CHOICE estimate for the regional subgroups, adjusted for regional inflation. **RESULTS:** Mexico has the most stable threshold in Latin America, calculated to take over 26 years to double. By comparison, time to doubling is less than half this for Panama, Peru and Suriname. The median time to doubling in the region is approximately 16 years, which is faster than Asia, the G7 group and the global average. Mexico, Uruguay, Panama, Argentina and Chile have a calculated 3x threshold over 2 times greater than the adjusted WHO-CHOICE Amro B subgroup threshold. The number of Latin American countries with 3x thresholds considerably below, in-line with and above the adjusted WHO-recommended value for their income subgroup is 2, 4 and 13 respectively. **CONCLUSIONS:** Due to the rapid economic expansion in Latin America over the last decade, many countries have outgrown the generic WHO-CHOICE threshold relevant to their region subgroup. Individual countries should therefore critically assess the relevance of adopting these thresholds as published, and how this might change over time.

HEALTH CARE USE & POLICY STUDIES - Health Care Research & Education

PHP39: CLIMATE MEASUREMENT OF PATIENT SAFETY IN THE HEALTH SERVICE-PORTUGUESE VERSION OF THE SAFETY ATTITUDES QUESTIONNAIRE SHORT FORM 2006

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OBJECTIVES: Patient safety is both a parameter embedded within the quality of care and a priority of health systems. The Safety Attitudes Questionnaire (SAQ) - Short Form 2006 is the most widely and rigorously validated instrument used to measure the patient's safety environment among health care providers. The goal of this study was to translate, culturally adapt and validate this instrument within the Portuguese context, thus creating the SAQ version - Short Form 2006 PT. **METHODS:** For the translation and cultural adaptation process, a methodological study was carried out based on the recommendations of Beaton et al. (2000), with the following steps: translation, synthesis, back translation, assessment by a committee of experts, pre-test and submission of reports to the instrument's authors. For the validation, a cross-sectional study was performed with a sample of 623 health professionals. The fidelity of the adapted version was assessed through its internal consistency and reproducibility, and the construct validity through confirmatory factor analysis. **RESULTS:** The SAQ - Short Form 2006 was successfully translated and adapted to the Portuguese context. The validity of its content was ensured by a committee of experts. Its fidelity was confirmed by a Cronbach's alpha of 0,92 and a Pearson's correlation coefficient in the test-retest of 0,99. Regarding its different dimensions, there were positive and significant correlations between all dimensions except for the stress recognition dimension. The confirmatory factor analysis showed adjustment quality indexes that demonstrate rather good adequacy to the six-factor model (X2/df=1,864; GIF=0,908; CIF=0,951 and RMSEA=0,047). **CONCLUSIONS:** The SAQ – Short Form 2006 PT version demonstrated good psychometric properties, through the highly satisfactory and auspicious fidelity and validity of the results, thus allowing its implementation as a valid measurement tool of the patient's safety environment in the health field within the Portuguese cultural context.

PHP40: CLINICAL TRIAL TRENDS IN LATIN AMERICA: COMMUNICABLE VERSUS NON-COMMUNICABLE DISEASE

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OBJECTIVES: Following the recent economic growth in Latin America, this analysis was undertaken to analyse the corresponding shift in healthcare trends, by examining the number of clinical trials being conducted in the region and their changing focus on non-communicable and communicable diseases. **METHODS:** ClinicalTrials.gov was searched in March 2015 for all trials with a study start date from January 2000 to December 2014 in five Latin American countries: Brazil, Chile, Colombia, Mexico and Peru. Studies were classified as either communicable or non-communicable according to the World Health Organization International Classification of Disease-10 (WHO ICD-10), with studies that did not focus on disease or illness excluded. **RESULTS:** Between the five selected Latin American countries there were a total of 8,847 relevant studies identified, 46.3% of which originated from Brazil. Over the entire time period from 2000 to 2014, 89.3% of studies were concerning non-communicable diseases such as cancer, cardiovascular disease and musculoskeletal disorders, whilst 10.7% focused on communicable diseases. An analysis over time saw a trend of an increasing proportion of trials in non-communicable diseases and a fall in the proportion of studies in communicable diseases. In 2000, non-communicable diseases accounted for 77.8% of studies, compared with 22.2% in communicable diseases, however by 2014 these percentages were 93.4% and 6.6%, respectively. There were 711 unique studies across the countries in communicable disease; 24.9% of these were in HIV/AIDs, one of the most deadly, infectious diseases in the region, responsible for approximately 7.2 deaths per 100,000 people across the five selected countries. **CONCLUSIONS:** The healthcare trends of Latin America appear to be changing alongside its rapid economic expansion; fewer clinical trials are being carried out in preventable, infectious diseases more commonly associated with poor healthcare availability and substandard living conditions, and there is an increasing focus on non-communicable diseases such as neoplasms, obesity and dementias.

PHP41: GOVERNANCE, DECISION-MAKING, AND UNIVERSAL HEALTH COVERAGE: PERCEPTIONS FROM CHILEAN HEALTH DECISION-MAKERS

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OBJECTIVES: To explore health decision-makers' perceptions on governance on decision-making process within the región de Los Ríosintegrated healthcare delivery network. **METHODS:** A descriptive and exploratory qualitative study base on in-depth interviews with health decision-makers from región de Los Ríosfrom June 2013 to December 2014 was conducted. A convenience sample of 11 health decision-makers was selected. A health decision-maker was defined as a health professional with a formal policy or managerial status whose primary responsibility would be formal leadership on decision-making (i.e. Health Service Director, and Hospitals Directors). The interviews were performed, recorded -previous signing of the informed consent- and transcript literally. The interviews' analysis was performed through the content analysis technique in its conventional approach, using ATLAS.ti qualitative software. **RESULTS:** For the health decision-makers, a meaning of governance applied to health systems and services is not conceived in a technical approach. Moreover, governance is neither perceived as a concept related to health nor universal health coverage. Politics was perceived as a key issue at designing and implementing health decision-making processes among the Chilean health systems. From a governance perspective, politics of health policy is perceived as a strong root for health decision-making in Chile. **CONCLUSIONS:** the Chilean case highlights is the paradox that establishing good enough governance to implement central initiatives with effective integrity might involve accountability measures that interfere with good administration.

PHP42: BRAZILIAN GUIDELINE FOR ACADEMIC DETAILING: A NEED TO IMPROVE HEALTH CARE

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OBJECTIVES: To develop a Brazilian Guideline on Academic Detailing (AD) – educational outreach visits to prescribers. The overall aim is to enhance the rational use of medicines and devices provided by the Brazilian National Health System (SUS). **METHODS:** This document was based on an extensive search of the literature, the AD experience of international organizations and the experience of a pilot project conducted by the SUS Collaborating Centre in Belo Horizonte, Brazil. A team of 15 researches, including facilitators and coordinators of AD Programs participated in the development of this Guideline. **RESULTS:** The Guideline provides an overview of the AD service that should be performed by a qualified and trained health professional (facilitator). To develop an AD Program a technical team composed of specialists on the subject to be addressed, researchers and interns should be formed. It is recommended that at least one coordinator manage the process, orient staff members, and conduct the training of facilitators. The process to develop and conduct an AD Program involves ten stages. Stage 1: Prospection and identification of problems; Stage 2: Definition of the AD purpose; Stage 3: Budget estimate, elaboration of schedule and technical team designation; Stage 4: Elaboration and purchase of the support material; Stage 5: Identification of prescribers and organization of visitation goals; Stage 6: Recruitment of facilitators and workshop training; Stage 7: Prescribers' visiting for AD; Stage 8: Release of the support material; Stage 9: Evaluation of results; Stage 10: Release of the results. **CONCLUSIONS:** A national Guideline is necessary to ensure the quality of AD service and the processes and outcomes that under pin it. The developed Guideline presents the main concepts of AD technique, examples of materials and forms necessary for documentation and evaluation of visits performance, and detailed information of each stage necessary to conduct an AD Program.

PHP43: STATE AND PROSPECTS OF PHARMACOECONOMICS TRAINING IN UKRAINE

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OBJECTIVES: Reforming experience of health care in Western countries (Canada, USA, UK and other European countries) demonstrates the need for standardization of medical and pharmaceutical care for population, taking into account the results of pharmacoeconomic analysis, it can reduce health care costs by 10-20 %.In Ukraine Prof. Olha Zalis'ka conducted theoretical bases and pharmacoeconomic analysis and creation of educational and methodical system of pharmacoeconomics for pharmacists during 1999-2003. **METHODS:** From 2003 the study of discipline "Pharmacoeconomics" was included in curriculum of pharmacists on specialty "Pharmacy" and "Clinical Pharmacy" and for postgraduate training of pharmacists in the specialty "Economy and management of pharmacy " and "General pharmacy "in Ukraine. **RESULTS:** Zalis'ka Olha defended doctoral thesis "The theoretical basis and practical use of Pharmacoeconomics in Ukraine " in 2004. It was published 5 manuals "Pharmacoeconomics" (2000), "The Bases of Pharmacoenomics (2002), 2007, 2014, which approved by Ministry of Health and Ministry of Education and Science of Ukraine for using of 20 pharmaceutical faculties of medical universities.In 2008 we created ISPOR Ukraine Chapter at the Danylo Halytsky Lviv National Medical University (www.ispor.org / local_chapter / Ukraine) . USPOR develops and implements the theoretical, practical and educational areas of pharmacoeconomics in Ukraine. To spread knowledge and increase access of local experts set up special website in ukrainian (www.uspor.org.ua), which presents the main domestic results. In the postgraduate training of pharmacists we use distance learning program (IDL), which are available in Ukrainian. **CONCLUSIONS:** We implemented the pharmacoeconomics in requirements of the "Concept of Pharmaceutical Sector of Health during 2011-2020", which claim the use of pharmacoeconomics methods in governmental programs, providing formulary system for in-patients.We work in MoH Commission of Ukraine which integrates the results of pharmacoeconomic studies into practice to determine the list of medicines for state programs for social health insurance.

PHP44: BENCHMARKING HEALTH TECHNOLOGY ASSESSMENT (HTA) AGENCIES FOR SETTING STANDARDS ON PHARMACOECONOMIC, PRICING, EVIDENCE, AND GENERAL SUBMISSION REQUIREMENTS: DEVELOPMENT OF A MULTIDIMENSIONAL RATING SCALE

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OBJECTIVES: To reliably and quantitatively benchmark Health Technology Assessment (HTA) agencies using a single global benchmarking system. **METHODS:** Literature search was conducted to identify surveys or reports evaluating different HTA agencies on a common scale. Using published literature, attributes deemed crucial for benchmarking HTA agencies were identified. In collaboration with clinical and actuarial experts, we developed a Likert scale to serve the basis for comparing key attributes of HTA submission process, i.e. pharmacoeconomic, pricing, evidence, and general submission requirements. **RESULTS:** Few publications have benchmarked HTA agencies against good practice and processes, with no published scale quantitatively assessing HTA agencies for attributes of submission requirements. Using identified literature and expert opinion, a unique Likert scale was developed with 77 questions. Each question were marked on a scale of 0-5, with higher score (4 or 5) indicating best practice or ease of accession and low score (0 or 1) indicating lack of guidance or difficulty in accession. As a limitation, each category may not have all options from 0-5. These 77 questions form 18 best practice principles, and in turn six functional domains, i.e. transparency, process, technical, equity, speed and implementation. Each domain has a unique significance: transparency - clear unbiased process, independent from health system; process - values innovation and prioritizes high value impact medicines; technical - defines and manages uncertainty to understand the totality of benefit; equity - takes into account full societal benefit and not just health costs; speed - delivers decisions in timely manner to meet innovation and timeliness; implementation - performs clear audit to ensure guidance is followed. **CONCLUSIONS:** Our scale provides a new approach to benchmark and differentiate HTA agencies in terms of adherence to best practice and ease of accession. Further research is required to consider individual market needs driving the HTA submission standards.

PHP45: ANÁLISIS DE VISIONES Y PERCEPCIONES DE POTENCIALES BENEFICIARIOS DE LA INSTITUCIONALIZACIÓN DE UN PROCESO DE EVALUACIÓN DE TECNOLOGÍAS SANITARIAS EN CHILE: UN ESTUDIO CUALITATIVO

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OBJECTIVOS: La implementación de un proceso de evaluación de tecnologías sanitarias (ETESA) en Chile ha visto un lento desarrollo durante los últimos 20 años. Recientemente el Ministerio de Salud de Chile ha elaborado una propuesta de institucionalización que podría acelerar la discusión social. Sin embargo, no existe información sobre las visiones y percepciones que otros actores (distintos al propio ministerio) tienen respecto de cómo debiera implementarse ETESA en Chile. El objetivo de este estudio fue explorar/analizar las visiones/percepciones de potenciales usuarios y/o beneficiarios de un proceso de ETESA en Chile.**METODOLOGÍAS:** Estudio cualitativo basado en el modelo de análisis de contenidos. Se llevaron a cabo 18 entrevistas semi-estructuradas a 19 personas. Se realizó un muestreo intencionado a un grupo de representantes que incluyó grupos técnicos (académicos y sociedades científicas), tomadores de decisión sobre adquisición de tecnologías del sector público y privado (pagadores y proveedores de salud), industria y sociedad civil (pacientes, asociaciones de consumidores). **RESULTADOS:** Las visiones fueron capturadas y organizadas en tres dimensiones: Principios que guías ETESA, Marco institucional e impactos esperados de su implementación. Los dos principios esenciales del proceso fueron transparencia y participación, para los cuales se obtuvieron variadas sugerencias para su implementación. Respecto de la institucionalidad, la mayoría opta por una entidad autónoma e independiente, liderada por un consejo directivo con amplia representación. Si bien se reconocen múltiples ventajas de contar con ETESA se identifican importantes desafíos para su implementación, entre ellos, la percepción de poco conocimiento del tema, escasa capacidades técnicas instaladas, y el que la implementación de ETESA no parece una prioridad actual en Chile.**CONCLUSIONES:** Existe consenso en torno a los principios que fundamentan la implementación de ETESA en Chile así como sus ventajas. Sin embargo, elementos como el limitado entendimiento de potenciales usuarios y la baja prioridad política amenazan su pronta implementación.

PHP46: A QUANTITATIVE ANALYSIS OF TEN HEALTH TECHNOLOGY ASSESSMENT (HTA) AGENCIES FOR ATTRIBUTES DRIVING TRANSPARENCY OF THE ORGANIZATION

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OBJECTIVES: To quantitatively benchmark Health Technology Assessment (HTA) agencies for attributes of transparency. **METHODS:** We developed a Likert scale (0-5, higher score>best practice/ease of accession) to benchmark HTA agencies on standards for submission. This comprises 77 questions grouped into 18 principles (P1-P18) and 6 domains, namely, transparency, process, technical, equity, speed and implementation. Principles were weighted differentially to adjust for difference in number of questions under each principle. Here we present weighted analyses of the transparency domain for national agencies from 10 countries: Australia, Brazil, Canada, China, France, Germany, Japan, South Africa, Spain, and UK. **RESULTS:** The principles under

transparency (maximum possible score and weightage in parenthesis) were: P1- HTAs are unbiased, rigorous and transparent (10.5; 10.5%); P4 - HTAs incorporate appropriate methods depending on its goal (8.8; 9.4%); P12 - HTAs are transparent in pricing, reimbursement and market access policies (4.1; 3.5%); P14 - HTAs are transparent on recommendations around economic evaluation (2.9; 7.0%).The overall weighted score for the transparency domain (maximum possible score: 26.3; higher scores indicating higher transparency) was highest for Australia (24.1), followed by France (23.9), UK (23.8), Germany (22.9), Canada (21.4), South Africa (20.1), Spain (17.9), Brazil (17.5), Japan (16.8) and China (9.6). Weighted score for P1 was highest for Australia and UK (9.5), followed by France (8.9) and Germany (8.5). For P4, the score was highest for Australia, Canada, France, Germany and UK (8.8, each). France scored highest for P12 (3.6) followed by Japan and Spain (3.4 each). Australia, Brazil, France, Spain, South Africa and UK scored highest for P14 (2.6 each). Our definition of HTA archetype placed Australia, France and UK at the highest level of HTA maturity (value implementers). **CONCLUSIONS:** Transparency is a key attribute driving HTA maturity. More established the HTA agency, higher is the transparency in submission process, pricing policies, pharmacoeconomic requirements and approach.

PHP47: DEFINING MARKET ACCESS IN BRAZIL: THE PHARMA PROFESSIONALS' PERSPECTIVE

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OBJECTIVES: Innovation in healthcare has become increasingly expensive making it difficult for pharmaceutical companies (PHARMAS) to have their products reimbursed. The Brazilian context is even more complex due to the current economic crisis, complex incorporation pathway in the private market and accelerated growth of the generics market. Thus, most PHARMAS are strategically investing in the Public and Private Healthcare Market Access (MA) area. We aimed to analyze whether pharma professionals (PP) in Market Access understand the importance, challenges and requirements of this new area. **METHODS:** We conducted a survey with PP (sales, marketing, medical affairs, market access) from various PHARMAS in 2014, consisting of a questionnaire with open questions about the definition of market access and challenges or doubts about the topic.**RESULTS:** A total of 136 professionals from 6 different multinational PHARMAS answered the survey. We observed a great dissonance about their definition of market access. Most responders believed MA should focus on patients' access, not just to drugs, but also to procedures and hospitalizations. About 75% (n = 102) stated concerns and obstacles to MA success. The majority focused on asking how to obtain specific product incorporation, and which were the pathways and criteria for technology incorporation in both public and private Brazilian healthcare systems. Most reported difficulties are the lack of integration between MA and other areas in the company, dissonance of objectives and points-of-view among healthcare players and the lack of qualified professionals in Brazil. **CONCLUSIONS:** There was a great disparity in the definitions of what is market access, most likely due to the relatively recent interest in the area in Brazil. Also, many PP still do not have enough training to build a successful MA strategy, besides lacking the necessary integration with other areas to achieve their objectives.

PHP48: INSTRUMENTOS PARA LA INCORPORACION DE LA EVALUACION ECONOMICA, EL IMPACTO PRESUPUESTARIO Y LOS ESQUEMAS DE PAGO POR RESULTADOS EN EL SERVICIO CATALÁN DE SALUD (ESPAÑA)

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OBJECTIVOS: El Servicio Catalán de la Salud (Catsalut) como responsable de la gestión del sistema de salud en la Comunidad Autónoma de Cataluña, ha desarrollado una sistemática dirigida a incorporar las innovaciones terapéuticas de forma coherente con su valor añadido. Con el objetivo de incorporar el valor social de la innovación y disminuir la incertidumbre sobre el mismo en el proceso de evaluación y adopción de nuevos medicamentos, el Catsalut ha desarrollado las Guías de Evaluación Económica y del Impacto Presupuestario (GAEIP) y la Guía para la definición de criterios de aplicación de Esquemas de Pago por Resultados (GEPR) en el ámbito farmacoterapéutico de Cataluña (España). **METODOLOGÍAS:** Para elaborar las Guías se han seguido los siguientes pasos: (1) Revisión bibliográfica; (2) Análisis de experiencias internacionales y nacionales; (3) Elaboración del primer borrador; (4) Revisión y validación por expertos externos y (5) Revisión y elaboración de las Guías definitivas. **RESULTADOS:** La GAEIP es un instrumento compuesto de dos conjuntos de recomendaciones metodológicas y check-lists para guiar a las compañías farmacéuticas en la realización de las evaluaciones económicas y de impacto presupuestario de los medicamentos que van a ser evaluados por el Catsalut. Por su parte, la Guía de EPR está compuesta de diferentes cuestionarios para ayudar a identificar aquellos medicamentos candidatos a un EPR (y de qué tipo) en función de las incertidumbres existentes y su grado, las preferencias y disponibilidad a pagar, y factores moduladores, organizativos e instrumentales. **CONCLUSIONES:** Los instrumentos desarrollados permitirán incorporar información sobre el valor económico de la innovación terapéutica disminuyendo la incertidumbre clínica y presupuestaria en el momento de su adopción por el sistema sanitario. Su implementación permitirá garantizar un acceso equitativo y una utilización sostenible de los nuevos medicamentos.

HEALTH CARE USE & POLICY STUDIES - Health Status/Population Health

PHP49: CONFIGURACION ESPACIAL DE LA VULNERABILIDAD SOCIAL DE INMIGRANTES INTERNACIONALES EN IQUIQUE 2002-2012 Y SU RELACION CON LA LOCALIZACION DE RED DE ATENCION PRIMARIA DE SALUD

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OBJECTIVOS: (i) Caracterizar la configuración territorial de vulnerabilidad social de inmigrantes internacionales en la ciudad de Iquique, norte de Chile; (ii) Explorar la relación entre vulnerabilidad social y localización de atención primaria de salud (APS) para esta población. **METODOLOGÍAS:** Estudio exploratorio de vulnerabilidad social de población inmigrante en Iquique a nivel de manzana censal utilizando Censo 2002 (n=1266 manzanas) y 2012 (n=1241 manzanas). La vulnerabilidad social fue medida a través de 3 de las dimensiones utilizadas en el Índice de Privación Múltiple (IMD: discapacidad, educación primaria y desempleo). El índice de correlación de Pearson permitió comparar entre estas dimensiones. Además, se compararon los límites territoriales de los 4 centros APS de Iquique con la distribución territorial de la vulnerabilidad social en inmigrantes en Iquique. **RESULTADOS:** Según censo 2002 y 2012 en Iquique habían 5.559 y 14.576 inmigrantes internacionales respectivamente, concentrando el 4% de población inmigrante del país. La población inmigrante vulnerable se concentra en zonas de vulnerabilidad general: Cerro Dragón y distrito industrial de Iquique (correlación entre IMD población total y población inmigrante R=0.41 en 2002 y R=0.59 en 2012). La población más vulnerable se encuentra en los límites territoriales de dos centros APS (Guzmán n=36.708 y Videla n=40.601 inscritos), que concentran al 37% de los inmigrantes de todo Iquique. **CONCLUSIONES:** Existe heterogeneidad en la distribución espacial de la vulnerabilidad social en inmigrantes. Esta vulnerabilidad aumentó entre 2002 y 2012 y se concentró en áreas de conocida vulnerabilidad para la población total. Inmigrantes vulnerables serían beneficiarios de centros APS con sobredemanda de servicios.

PHP50: A FORMA (IN) ADEQUADA DO APARATO VOCAL

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OBJETIVOS: Esta pesquisa tem por objetivo discutir as implicações da voz de professores pelo mau uso do aparelho fonador. **MÉTODOS:** Estudo realizado com 22 professores do ensino médio durante o ano de 2012, por meio de pesquisa qualitativa. **RESULTADOS:** 77,3% dos professores são do sexo feminino e 22,7% do sexo masculino, a média do tempo de profissão está entre 10 a 15 anos, a jornada semanal de trabalho de 41% deles é de trinta a quarenta horas semanais, sendo que 27,3% ministram até sessenta horas semanais. Quanto à intensidade da voz, 54,5% falam alto, sobre a velocidade da voz, 39% falam entre rápido e muito rápido. Quanto à alteração vocal todos já tiveram patologia laríngea, a maioria, 73% disseram apresentar rouquidão e 27,0% já faltaram ao trabalho por perda de voz. Eles não tiveram nenhum tipo de orientação vocal sobre a maneira correta de usar a voz na comunicação, 73% desconhecem a forma adequada de como usá-la e não se mantêm atualizados sobre o assunto. **CONCLUSÕES:** Percebeu-se que mesmo com inúmeros recursos e avanços tecnológicos, os docentes abusam de sua voz, porque trabalham com sala de aulas lotadas, competem com inúmeros ruídos dentro e fora da sala, têm jornada muito extensa além de que faltam informações a eles sobre a forma adequada do uso da voz. Constatou-se que a voz ainda é um dos recursos mais usados pelos docentes e faltam-lhes medidas preventivas; daí, a importância de os cursos de formação e os gestores abordarem a temática aos futuros docentes.

HEALTH CARE USE & POLICY STUDIES - Quality of Care

PHP51: INCORPORACION DE LOS RESULTADOS DE LA EVALUACION ECONOMICA EN LAS RECOMENDACIONES DE LAS GUÍAS DE PRÁCTICA CLÍNICA EN COLOMBIA

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OBJECTIVOS: Identificar la proporción de guías de práctica clínica (GPC) que cuentan con evaluación económica (EE), y si esta fue o no incorporada en la recomendación clínica de la GPC. **METODOLOGÍAS:** Estudio descriptivo, en el cual se revisaron 32 GPC desarrolladas en Colombia, en el periodo de 2012 a 2014. Se identificó el número de EE realizadas por guía. Se revisó si el resultado de la EE fue tenido en cuenta en el análisis para realizar la recomendación clínica y si la recomendación estaba en la misma dirección que el resultado de la EE. **RESULTADOS:** El 93% de las GPC cuentan con al menos una EE. Para las 32 GPC desarrolladas se encuentra un total de 58 EE, la media de EE por guía fue de 2, con un valor máximo de 7 por guía. Del total de EE el 91% de ellas fue considerado para la redacción de la recomendación clínica, y el 82% coincide con la recomendación. **CONCLUSIONES:** Es predominante el número de GPC que tienen al menos una EE incorporada al proceso de desarrollo. Se espera que los resultados de cada una de las EE desarrolladas de manera conjunta con una GPC, sean incorporados en el análisis de la evidencia para la formulación de la recomendación clínica. Lo que se identificó posterior a realizar la revisión, es que en algunas GPC no se realiza una incorporación y análisis explícito de los resultados de la EE en la recomendación clínica. Lo anterior, sugiere la necesidad de que los grupos desarrolladores de guías evalúen la forma de redacción e incorporación de la evidencia económica en el análisis y formulación de la recomendación clínica, ya que se considera que una EE en el marco de una GPC es un insumo para la toma de decisiones al respecto de la recomendación.

PHP52: DESARROLLO E IMPLEMENTACI"N DE UN MODELO DE AUDITORÍA MÉDICA BASADO EN GARANTÍA DE CALIDAD Y SUPERVISI"N PARTICIPATIVA EN ECUADOR

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OBJECTIVOS: Este estudio es una descripción del desarrollo de una estrategia de Auditoria Médica basada en la Garantía de la Calidad de la prestación utilizando herramientas de supervisión participativa en un intento de generar cooperación entre el auditor y el auditado en servicios de salud del primer niel de atención del Ministerio de Salud Publica **METODOLOGÍAS:** Se diseñó una

metodología la cual se validó en terreno, ademas se presenta una descripcion de los resultados de la aplicacion en los servicios de salud en Quito durante 10 meses. **RESULTADOS:** La guía de campo es el primer resultado, es eficiente y válido en multiples contextos. ademas se evalua cualitativamente a los auditados encontrando un discurso explicito: excusativo y turistico, y un discurso implícito de abandono, debido a ausencia de capacitación o de acercamiento con directivos. Se auditaron 1920 casos en un periodo de 10 meses, se inicia con valores muy bajos de pertinencia clínica, de tan solo 42%, es decir que solo 4 de cada 10 historias tenían una calidad de la atención clínica aceptable, las otras tenían algún tipo de error, sin embargo la intervención de auditoria logra que en 10 meses se mejore y se culmine con un 64%, la evaluación de riesgo legal única en 63% y culmina en 83%. **CONCLUSIONES:** El modelo de Auditoria medica implementado ha demostrado ser un proceso eficiente y efectivo en el mejoramiento de la calidad de la prestación de los servicios médicos, las intervenciones de este tipo deben ser construidas de manera contextualizada y participativas, tomando en cuenta las barreras de los profesionales de la salud para poder ejercer con calidad su actividad, no debe ser un proceso punitivo sino colaborativo. Auditoria médica es una fuente importante de información para la construcción de políticas sanitarias y para el desenmascaramiento de problemas en el nivel operativo.

HEALTH CARE USE & POLICY STUDIES - Regulation of Health Care Sector

PHP53: ESTUDIO DE LA IMPLEMENTACION DE LA EXIGENCIA DE BIOEQUIVALENCIA SOBRE EL CONSUMO DE MEDICAMENTOS DURANTE AGOSTO 2009 A NOVIEMBRE 2014 EN CHILE

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OBJECTIVOS: medir el impacto de la implementación de la exigencia de bioequivalencia sobre el consumo de medicamentos durante el período agosto 2009 a noviembre 2014 en Chile. **METODOLOGÍAS:** Estudio de “diferencias en diferencias” del consumo mensual de 50 medicamentos con mayor ranking de consumo según IMS-Chile. Se consideró un control por cada principio activo analizado con el objeto de estimar un efecto independiente de otros factores no asociados a la bioequivalencia. Se consideraron 3 criterios de selección para cada control: (a) que posea un patrón de prescripción similar al fármaco analizado, (b) que no esté sometido a la exigencia de bioequivalencia y (c) que tenga una tendencia de consumo paralela al fármaco analizado. El criterio (c) se evaluó mediante el cálculo de la matriz de distancias entre los consumos. La implementación de la medida de bioequivalencia se estudió a través del ajuste de un modelo de regresión de efectos aleatorios con matriz covarianzas corregidas por panel. **RESULTADOS:** De los 50 principios activos en estudio solamente se analizaron 27 debido a que en el resto no se pudo hallar un control adecuado o no se disponía de una serie temporal con suficientes observaciones para el ajuste del modelo de regresión. En 17 medicamentos el efecto absoluto de la implementación de la bioequivalencia se tradujo en un aumento del consumo pero solamente en 4 de ellos, Amitriptilina, Carvedilol, Enalapril y Propranolol, el impacto fue significativo ($p<0.01$). Se observaron diferencias significativas ($p<0.001$) con respecto a sus controles para los medicamentos Furosemida, Metformina, Fenitoína y Propranolol. **CONCLUSIONES:** La implementación de la exigencia de bioequivalencia ha mostrado un efecto heterogéneo sobre el consumo de los medicamentos. En algunos de ellos se observó un aumento de consumo pero en otros hubo un descenso y esto significa que el estudio de impacto debe realizarse separadamente por medicamento.

HEALTH CARE USE & POLICY STUDIES - Risk Sharing/Performance-Based Agreements

PHP54: DISINVESTMENT INITIATIVES IN LATIN AMERICAN COUNTRIES (LAC): A SYSTEMATIC LITERATURE REVIEW (SLR)

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OBJECTIVES: Disinvestment of existing low- or no-added value technologies can be used as a tool to improve access to effective, adapted and efficient technologies, whilst ensuring the long-term sustainability of healthcare systems. The objective of this SLR was to identify disinvestment practices and proposals in LAC. **METHODS:** In February 2015, MEDLINE, MEDLINE In-Process, EMBASE, The Cochrane Library and LILACS were searched for relevant articles without date or language limits. The search strategy included terms related to “disinvestment”, “reallocation”, “obsolete technologies” and Latin America. Additionally, a manual search of documents from Latin American Health Technology Assessment agencies was performed. Search results were evaluated by two independent reviewers, with any disagreements resolved through consensus or third-reviewer arbitration. **RESULTS:** 350 records were selected for screening after de-duplication, and 11 articles fulfilled the inclusion criteria for analysis. Of these, two articles reported incomplete information on two initiatives potentially identifiable as disinvestment-investment activities in Brazil and Peru. Six reported on four cases of current non-evidence-based use of health technologies and necessity for better resource allocation in Brazil, Colombia and Uruguay. However, only in one of these cases was active disinvestment suggested. Three articles presented theoretical work but did not provide any specific example of disinvestment in the real world. Of all 11 articles identified, none provided a comprehensive description of a disinvestment initiative, such as explaining the approach taken for identification, evaluation and prioritisation, the actual enablers and barriers faced during its implementation, the results and current situation. **CONCLUSIONS:** This SLR has shown that no structured disinvestment activities have been published so far in LAC. Many challenges need to be overcome for a disinvestment initiative to be successful, and sharing particular experiences (benchmarking) with the international community would increase the chances of positive outcomes. The present study highlights the need for publication of such experiences.

PHP55: A STREAMLINED APPROACH TO ETHICS REVIEW IN BRAZIL

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Objectives: The number of clinical trials (CT) performed in Latin America has been growing in the last decades. Despite the favorable numbers tough, the full potential of the region is still to be reached. CT must be reviewed by an independent ethics committee (IRB), a process that may result in unusually long delays, hindering patient accrual. Different ethics review approaches are available worldwide. In Brazil, bureaucracy and duplicity of evaluation are already established as regulatory barriers and few recommendations are available for a more streamlined ethics review system. **T**herefore, we aimed to evaluate the ethics review system, regulations and guidelines in selected countries in order to propose recommendations for streamlined approach in Brazil. **Methods:** Guidelines and regulations from Brazil, Canada, Germany, New Zealand, Australia, USA and UK were reviewed to evaluate the ethics approval system for CT in order to propose recommendations to the Brazilian ethics system. **Results:** Clear requirements for ethics review and ethics system definitions are available among evaluated countries. Australia and New Zealand underwent reforms in their systems that increased efficacy and shortened the time for approval. Based on those requirements and reforms, we suggest a streamlined process to improve efficiency of the Brazilian ethics system. Our proposal has four main recommendations: review of the responsibilities of local IRBs and the national IRB, development of a new regulatory process for multicenter study submissions, development of guidelines and certification of IRBs and transparency of the metrics report on research quality from IRBs. **Conclusions:** Removal of duplicity of evaluation and responsibilities represented one of the mainstays of streamlined process for some countries. Guidance, certification and transparency are intended to draw the attention of IRBs, investigators and sponsor to the need to consider carefully the ethical implications of research, and thus to achieve high scientific and ethical standards.

PHP56: CAMPAÑAS DE MEDICAMENTOS; INSTRUMENTO PUBLICITARIO QUE ATENTA CONTRA LOS GENÉRICOS Y EL ACCESO A MEDICAMENTOS

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Campañas de medicamentos; instrumento publicitario que atenta contra los genéricos y el acceso a medicamentos. Investigadores: Andaur S, Ricardo1; Cienfuegos S, Jorge1; Sarabia O, Constanza1 Centro de Estudios Farmacéuticos y Determinantes Sociales, ONG Principios Activos OBJETIVOS En Chile, entre 2008 y 2012 se observó una disminución del consumo de medicamentos genéricos de un 14,6%, un aumento de un 100,7% de marcas propias y 28,7% de similares de marca. Un elemento que podría influir en esta variación son las campañas publicitarias de medicamentos por parte de Cadenas de Farmacias, que a pesar de estar regulado se evidencian distorsiones e incumplimientos reglamentarios. Por tanto, el presente estudio tiene por objetivo relacionar las campañas publicitarias con la disminución en el consumo de genéricos y aumento de medicamentos de marca. METODOS Se analizará la orientación de las campañas publicitarias de medicamentos por parte de Cadenas de Farmacia en periodos estivales en diarios de circulación gratuitas y se relacionará con los datos de ventas para esos periodos determinando. RESULTADOS ESPERADOS Las campañas en diarios de circulación gratuita se focalizan en medicamentos de marcas propias y similares de marca, siendo un 24,69% y 100% respectivamente. De estos, un 32,09% corresponde a éticos, en ambos tipos de medicamentos se ha observado un incremento en el consumo para los periodos estudiados. CONCLUSIONES Las campañas publicitarias de medicamentos por parte de Cadenas de Farmacias se focalizan en medicamentos similares de marca y marcas propias como estrategia de posicionamiento y crecimiento de éstos. Esta estrategia ha incrementado su consumo y disminuido el de genéricos. Tal situación, considerando el mayor precio de este tipo de medicamentos por sobre los genéricos y un alto gasto de bolsillo en este ítem, atenta contra una política de uso de genéricos lo que tiende a disminuir el acceso a medicamentos.

PHP57: ENVOLVIMENTO DO PÚBLICO NO PROCESSO DE INCORPORAÇÃO DE TECNOLOGIAS NO SUS

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Nos últimos anos, tem-se analisado, discutido e questionado formas de efetivamente envolver o público nos processos de avaliação e incorporação de tecnologias em saúde no âmbito do Sistema Único de Saúde (SUS). Em 2011, a Lei 12.401 foi promulgada, criando a Comissão Nacional de Incorporação de Tecnologias no SUS (CONITEC) e oficializando a participação da sociedade civil no processo de incorporação de tecnologias no SUS, através da participação de representantes do Conselho Nacional de Saúde (CNS) e do Conselho Federal de Medicina (CFM) como membros da CONITEC; da realização de Consulta Pública (CP) para todas as recomendações e de Audiência Pública antes da tomada de decisão final, nos casos em que a relevância da matéria justifique a sua realização. Um estudo brasileiro publicado em 2013 identificou propostas para aprimorar o envolvimento do público e considerar as preferências dos pacientes e do público nos processos de ATS no contexto nacional atual. Muitas dessas propostas, entre outras, estão sendo implementadas. Tem-se realizado uma melhor divulgação das CP, através de redes sociais, sites e listas de e-mail, visando atingir o público interessado e garantir uma maior participação. Além disso, foi criado um novo formulário de CP direcionado aos pacientes e cuidadores, a fim de considerar a perspectiva desses em relação às novas tecnologias avaliadas. Outras estratégias estão sendo conduzidas, como a produção de relatórios de recomendação em linguagem apropriada para o público e de um guia de ATS para pacientes, a fim de disseminar o conhecimento e facilitar o envolvimento da sociedade. Estão sendo levantadas propostas

de envolvimento da sociedade no processo de elaboração de Protocolos Clínicos e Diretrizes Terapêuticas e estratégias de estreitamento da relação da CONITEC com o público. Espera-se que o aprimoramento dessas ações aumente o envolvimento do público nos processos de ATS do Brasil.

PHP58: DEVELOPING BILINGUAL CERTIFICATE PROGRAMS IN CLINICAL PHARMACY

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Background: Approximately 17% of the population in the U.S. is Latino and that number is expected to grow at a significant rate. .Therefore, Spanish speaking providers are needed in many of these communities. There is a demand for more clinically trained Spanish speaking pharmacists since only 4.1% of the students currently enrolled in U.S. pharmacy schools are Latinos. In most Latin American countries, the practice of pharmacy is not as clinically oriented compared to that of the U.S., and for this reason a more expanded clinical role could enhance patient's outcomes. Methods: We describe the intent of our university to develop bi-lingual (English and Spanish) on-line certificate programs as a method to enhance clinical pharmacy practice in Latino communities. An assessment of the needs, current practice, and future plans will be used to guide the specific program. The programs are intended to benefit pharmacists serving Latino communities in the USA as well as pharmacists serving Spanish speaking patients in Latino America as a whole. These programs will be are case-based and will require active engagement and development problem-solving skills. Certificates will first be offered in the areas of integrating culture, language, and literacy into clinical practice, basic and applied pharmacokinetics, diabetes management, hypertension management, lipid management, asthma management, anticoagulation management, appropriate use of antibiotics, and principals of herbal medicine use. The format of the case presentations will use interactive and dynamic PowerPoint slides with voice over. The certificate programs will have a pre and post-test assessment and upon completion of all the requirements, a certificate of completion will be offered by our university. Conclusion: The proposed bilingual online certificate programs could enhance clinical pharmacy practice in both U.S. Latino communities and Latino America.

PHP59: AUMENTO DEL RIESGO DE CANCER POR EFECTO DE VARIACIONES ACUMULADAS EN LA EXPOSICI"N A LA RADIACION EN ESTUDIOS DE RADIOLOGÍA CONVENCIONAL Y TOMOGRAFÍA COMPUTARIZADA EN PACIENTES PEDIÁTRICOS

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Los riesgos asociados a la exposición a irradiaciones en la ejecución de estudios de imagenología (Rx Convencional o Tomografía Computarizada) en pacientes pediátricos es un tema de discusión que abarca de forma transversal la necesidad de contar con información precisa para la toma de decisiones frente a la oportunidad, conveniencia y responsabilidad en la realización de estudios de radiología dentro del contexto del tratamiento de la enfermedad y el avance del ciclo de vida del paciente. A partir de la observación y análisis de 2732 pacientes tratados en la Unidad de Imágenes Diagnósticas del Instituto de Ortopedia Infantil Roosevelt en la Ciudad de Bogotá DC (Col) durante el año 2011 distribuidos entre estudios de Radiología Convencional (RC) y Estudios de Tomografía Computarizada (TC) se ha desarrollado un ejercicio descriptivo que comprende el análisis de la respuesta de aumento del riesgo de cáncer por efecto de un aumento probable en la exposición a la radiación sobre el paciente. Del mismo modo se ha propuesto un esquema de seguimiento de exposición basado en probabilidades que podrá clasificar el riesgo de futuras intervenciones radiológicas así como un esquema individualizado de control (CPI Control preventivo de irradiación).

PHP60: SON ÚTILES LOS ENFOQUES DE SEPARACIÓN DE FUNCIONES Y CADENA DE VALOR PARA MEJORAR LA ORGANIZACIÓN, REGULACIÓN Y ACCESO A MEDICAMENTOS?

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El mercado de medicamentos ha experimentado cambios importantes en la última década, en la medida que: los sistemas de salud se están reformando y aumenta la importancia de los esquemas públicos de financiamiento de medicamentos; se producen nuevos cambios tecnológicos; y, cada vez parece costar más el atender y mejorar equitativamente el estado de salud de la población. Estos fenómenos están alterando las relaciones tradicionales entre los actores del mercado de medicamentos (industria, aseguradores, reguladores, prestadores y pacientes) y están generando incertidumbre, tanto a nivel público como privado, en torno a como es necesario redefinir las actividades y relaciones en el nuevo escenario. Por otra parte, en las décadas recientes hemos presenciado el desarrollo de marcos conceptuales que nos han ayudado a entender, y a reorganizar, los sistemas de salud. Uno de ellos corresponde al enfoque de separación de funciones que actualmente se utiliza para estudiar y diseñar procesos de reforma de salud. Otro esquema conceptual importante, es el enfoque de cadena de valor, que se ha venido aplicando crecientemente al área de la salud, en la medida que la satisfacción de los pacientes va cobrando importancia como objetivo de las organizaciones de salud. En este trabajo, se aplican estos dos esquemas de análisis para mapear las principales actividades del mercado de medicamentos con el propósito de orientar la actividad regulatoria pública en este ámbito.

HEALTH CARE TREATMENT STUDIES

MEDICAL DEVICE/DIAGNOSTICS - Clinical Outcomes Studies

PMD1: THE STRUCTURE OF THE CHOROID PLEXUS OF ADULT AND CHILDREN BRAIN VENTRICLES

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OBJECTIVES: To determine the structure of the choroid plexus of adult and children brain ventricle **METHODS:** This study obtained choroid plexus size in 84 dead bodies, which is between the adult and children from cadavers. To determine the choroid plexus morphometric measurements, the total 336 specimens were evaluated. **RESULTS:** In present study, the maximum length and thickness were determined in ages from 22-60. In present study, the minimum length and thickness were determined in ages 0-10day. In adult, the mean choroid plexus lenght was 8.61±0.15 cm of the lateral ventricles and 4.47±0.02 cm of the fourth ventricles and 0.56±0.140 cm of the third ventricle and the choroid plexus tickness was 0.5±0.03 cm of the lateral ventricles and 0.29±0.01 cm of the fourth ventricles and 0.28±0.01 cm of the third ventricle. In children, the choroid plexus lenght was 7.02±0.23 cm of the lateral ventricles and 2.59±.0.06 cm of the fourth ventricles and 1.67±0.05 cm of the third ventricle and the choroid plexus tickness was 0.34±0.02 cm of the lateral ventricles and 0.26±0.03 cm of the fourth ventricles and 0.27±0.04 cm of the third ventricle **CONCLUSIONS:** 1. In adult, the mean choroid plexus lenght was 8.61±0.15 cm of the lateral ventricles and 4.47±0.02 cm of the fourth ventricles and 0.56±0.140 cm of the third ventricle and the choroid plexus tickness was 0.5±0.03 cm of the lateral ventricles and 0.29±0.01 cm of the fourth ventricles and 0.28±0.01 cm of the third ventricle. 2. In children, the choroid plexus lenght was 7.02±0.23 cm of the lateral ventricles and 2.59±.0.06 cm of the fourth ventricles and 1.67±0.05 cm of the third ventricle and the choroid plexus tickness was 0.34±0.02 cm of the lateral ventricles and 0.26±0.03 cm of the fourth ventricles and 0.27±0.04 cm of the third ventricle

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PMD2: ANALYTICAL REPRESENTATION OF UTILITY FUNCTIONS FOR CERVICAL SCREENING STRATEGIES IN THEIR EVALUATION WITH "COST-UTILITY" METHOD

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OBJECTIVES: Cervical cancer (CC) takes the 3rd place among women cancers globally, accounting for more than quarter of a million deaths annually. In Ukraine it takes the 2nd place of cancers among women aged 15 to 44, accounting for more than 2000 deaths each year. Gradual increase of CC incidence rates during the previous decade is concurrently followed by the decrease of a median age of diagnosis. Incidence rates for CC in Ukraine are estimated to be at least two times higher than in countries with well-organized cervical screening programs. Thus the aim of this study is to evaluate the most efficient cervical screening strategies using “cost-utility” method. **METHODS:** "Cost-utility"-based analysis and evaluation are based on the results of own clinical and laboratory studies of 1257 cervical samples (HPV DNA tests and cytological diagnostics) from women aged 19 – 65 (mean age 30.68 (±7.72)), living in different regions of Ukraine. Statistical and mathematical methods are used for modeling the utility function of a number of diagnostic strategies. Analytical representation and evaluation of the data was performed using MATLAB Simulink r2014a software package. **RESULTS:** Initial hypothesis of the utility function form for HPV DNA and cytological tests was put forward. It was assumed that the first test has a maximum utility at a defined age limit due to the age-dependent increase of the probability of cytological test being positive. This results in reduction of the predictive utility of HPV DNA test. The utility function of cytological test must resemble cumulative sigmoid function. Stated hypothesis was verified on the data on HPV DNA presence in normal cytology and cervical intraepithelial lesions using methods of mathematical modeling. **CONCLUSIONS:** The study confirmed given hypothesis. The obtained results can be used in "cost-utility"-based method of pharmacoeconomic analysis of different cervical screening strategies

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PMD3: EFFECTIVENESS OF THE ANTIBIOTIC-IMPREGNATED CATHETERS IN VENTRICULAR DRAINAGE IN HYDROCEPHALUS PATIENTS – A SYSTEMATIC REVIEW

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OBJECTIVES: The ventricular drainage of the cerebrospinal fluid (CSF) is an essential procedure in the care of patients with hydrocephalus and intracranial hypertension. However, the literature shows evidences of an infection rate (IR) of 5% to 10%. Infections can cause neurological sequelae and death. To reduce the risk of contamination antibiotic-impregnated catheters (AIC) are indicated. The aim of this study is to systematic review (SR), the efficacy of these catheters. **METHODS:** The electronic databases, MEDLINE via Pubmed, The Cochrane Central Register of Controlled Trials, The Cochrane Library, LILACS, CRD and EMBASE were reviewed until June, 2013. No language and time limits were applied. Meta-analysis, SR and RCTs in patients using AIC in the hydrocephalus treatment with internal or external shunt comparing to standard catheter (SC) were included in this study. **RESULTS:** 232 records were identified. 45 studies were revaluated. 4 met the inclusion criteria – 3 SR and 1 RCT. The first SR evaluated 14 studies. Among the 9,049 cases evaluated, SC and AIC presented an IR of 7.0% and, 3.5% respectively. The second SR evaluated 2,664 cases and observed a global and pediatric IR of 7.2% (SC) and 3.3% (AIC) and 11.2% (SC) and 5.0% (AIC). The third SR showed though a meta-analysis, similar results for the adult and pediatric population and included the neonate where they observed a significant difference for the AIC in internal shunts: RR:0.37; IC:0.16-0.86; p=0.02. The RCT evaluated the IR for SC and AIC and found a not statistically significant lower IR in the AIC, probably because of the low global IR. **CONCLUSIONS:** The studies suggest AIC reduces infections related to drainage especially in the pediatric population.

PMD4: BUDGET IMPACT MODEL FOR CERVICAL CANCER SCREENING USING HPV TESTS IN CHILE

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OBJECTIVES: The aim of this study is to estimate, in Chile, the clinical and budget impact of cervical cancer primary screening with a HPV-16/18 genotyping test which simultaneously detects 12 other high-risk HPV types.**METHODS:** A decision tree framework was used to model the screening and diagnosis of cervical cancer to compare three strategies: (1) Cytology alone – Screening Interval (SI): 3 years; (2) Pooled HPV with reflex cytology – SI: 5 years; (3) HPV with 16/18 genotyping and reflex cytology (cobas® 4800) – SI: 5 years, from a payer's perspective. The impact model was run by having the women cohort progress through the model with 2 screening cycles. In addition, the screening and cancer treatment costs were calculated from FONASA public data (Fondo Nacional de Salud) reported in 2014 converted to US dollars (USD). **RESULTS:** The Budget Impact Model indicates that, when comparing the Strategy 2 and 3 to Strategy 1 there is an increase of ≥CIN2 (Cervical Intraepithelial Neoplasia) cases detected, treated and a reduction at the number of patients progressing to cervical cancer. When comparing the strategy 2 to strategy 1, the model estimated savings of 1.9% at the annual costs, including screening, diagnosis and treatment. There is also a decrease of 25% and 33% at the incidence of Cervical Cancer and Mortality Rate, respectively. Better clinical results could be achieved when the strategy 3 is implemented. An additional investment of only 0.37% at the annual budget would be necessary to decrease the incidence of Cervical Cancer by 43% and the mortality rate by 54% in Chile. **CONCLUSIONS:** This analysis suggests that the use of the HPV genotyping test (strategy 3) is a potential effective management strategy, given that the clinical impacts are highly positives and budgetary impact is basically neutral, comparing to the current screening program in Chile.

PMD5: REDUCING INSULIN SYRINGE REUSE CAN HELP LOWER COST OF INSULIN WASTE IN BRAZIL

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OBJECTIVES: Brazil ministry of health guidance for diabetes management allows for an insulin needle to be reused 8 times. Reuse has been associated with lipohypertrophy. Additionally, diabetes patients with lipohypertrophy require higher doses of insulin. This analysis demonstrates potential cost savings from syringe reuse reduction in Brazil. **METHODS:** A budget impact model was created to demonstrate the relationship between lower syringe reuse and lipohypertrophy rates. It was assumed 90% of patients use syringes in Brazil. An international survey suggests the lipohypertrophy rate is 48%. Another study showed increasing reuse correlates to a higher ratio of lipohypertrophy presence. With estimates including additional insulin requirements for lipohypertrophy, cost of insulin, and annual cost and volume of syringes, the difference between insulin wasted from lipohypertrophy and the cost associated with reducing reuse rate was calculated. **RESULTS:** The estimated insulin injecting population with lipohypertrophy using syringes in Brazil is 691,200. If these patients require 15 units more insulin/day and the cost/unit is $0.03, then the cost of excess insulin is $113.5 million/yr. The difference in rate of lipohypertrophy between reusing 8x (rate of 5.5) and reusing 4x (rate of 2.2) is a factor of 2.5. Based on estimated cost, volume, and currently allowed reuse rate, Brazil spends approximately $22.8 million on insulin syringes. If a reuse rate of 4x was implemented ($45.6 million), Brazil could anticipate a lipohypertrophy reduction of 28.8%, and a $68.1 million decrease in excess insulin. The savings on excess insulin and the incremental investment in syringes ($22.8 million) results in a total savings of $45.3 million/yr.**CONCLUSIONS:** The current acceptable reuse rate in Brazil, 8x, may be driving increased diabetes management costs. Best practice advocates single use. However, if Brazil cuts their reuse guidance in half, they can save $45.3 million/yr from reduced insulin waste.

PMD6: BUDGET IMPACT ANALYSIS OF DRUG COATED BALLOON VS. PERCUTANEOUS TRANSLUMINAL BALLOON ANGIOPLASTY IN THE TREATMENT OF PERIPHERAL ARTERIAL DISEASE IN LOWER LIMBS IN BRAZIL

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OBJECTIVES: Budget Impact analysis (BIA) of Drug Coated Balloon (DCB) vs. Percutaneous Transluminal Balloon Angioplasty (PTA) in the treatment of Peripheral Arterial Disease in lower limbs in Brazil. **METHODS:** A BIA was performed to assess the incremental budget impact of the incorporation, to the Brazilian public healthcare system, of a method of PTA using a drug coated balloon compared to the currently available technology, using an standard balloon, on the treatment of the peripheral arterial disease, in a 5 years' time horizon. The total amount of PTA procedures on the system was extracted from DATASUS, a nation-wide, anonymous, public healthcare claims database, between 2008 and 2013. Based on this data, the eligible population was projected linearly for the years between 2014 and 2019. Total costs (angioplasty plus surgical revascularization in case of a TLR) per procedure were based on an analytic decision model (R$ 4,415.70 (DCB); R$ 3,720.03 (PTA)). It was assumed that, after the incorporation, all patients eligible to a PTA will undergo the procedure using a DCB instead of the standard balloon. **RESULTS:** The DCB incorporation showed an impact of R$ 1.9 million on the first year (2015) and reached a total amount of R$ 11.8 million in 5 years. The projected impact for the year of 2015 (R$ 1.9 million) represents less than 0.01% of the budget destined to hospital and ambulatory assistance. **CONCLUSIONS:** The incorporation of DCB for the treatment of Peripheral Arterial Disease in Lower Limbs in the Brazilian public healthcare system has low budget impact and it would represent less than 0.01% of the budget destined to hospital and ambulatory assistance.

PMD7: ECONOMIC BENEFITS ASSOCIATED WITH NT-PROBNP TEST IN BRAZIL AND MEXICO

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OBJECTIVES: The objective of this study is to investigate the economic impact per patient using NT-proBNP test to guide the diagnostic assessment and management of dyspneic patients in the Emergency Department in Brazil and Mexico. **METHODS:** A cost tool was developed based on a decision tree from Siebert study. It was evaluated the standard clinical assessment (strategy 1) with assessment guided by NT-proBNP (strategy 2), from a payer's perspective. The direct medical costs were based on the DATASUS (Departamento de Informática do Sistema Único de Saúde – Brazil) and IMSS (Instituto Mexicano del Seguro Social – Mexico) databases converted to 2015 US dollars (USD). The time horizon was 60 days. Additionally, the sensitivity analysis was performed with a variation of 10%. **RESULTS:** Based on Siebert study, the optimal use of NT-pro-BNP strategy reduces the use of echocardiography from 25% to 10.5% and the average of hospitalization length from 4.41 days to 3.88 days. Therefore, according to our cost tool for Brazil, in the base case scenario, the savings per patient is $218.15, after applying the sensitivity analysis in the best case scenario the savings achieved is $385.23, and in the worst case is $51.07. A similar result could be achieved in Mexico, in the base case scenario the savings per patient is $218.96, while with the sensitivity analysis the savings reached $388.55 for the best case scenario, and $74.50 for the worst case. **CONCLUSIONS:** The optimal use of NT-proBNP test could improve the management of patients with acute Heart Failure according to our analysis. Moreover, it demonstrated incremental value in diagnosis which may result in improved therapeutic decisions and savings for both countries.

PMD8: COMPARAÇÃO DE CUSTOS E EFETIVIDADE ENTRE ML- FLOW E BACILOSCOPIA PARA AUXÍLIO DIAGN"STICO E TRATAMENTO DA HANSENÍASE

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OBJETIVOS: Mensurar os custos e efetividade do diagnóstico laboratorial da hanseníase através de dois exames: baciloscopia, que o exame adotado no sistema de saúde, e o ML-Flow, que é um teste rápido, sem registro sanitário, e utilizado no diagnóstico de 13.457 pacientes no Brasil, Índia, Chile, Nigéria, Nepal, Indonésia e Filipinas. **MÉTODOS:** Entre junho de 2010 e outubro de 2011, realizou-se um ensaio clínico no Centro de Referência Estadual de Hanseníase do Ambulatório de Dermatologia Sanitária de Porto Alegre. Foram avaliados todos pacientes (n:35) atendidos com suspeita de hanseníase através de exame clínico, como preconizado pela Organização Mundial de Saúde, e por dois testes laboratoriais: baciloscopia e ML-Flow. Foram computados os custos de aquisição dos testes e insumos, e da mão de obra da equipe multidisciplinar envolvida. Foram ainda calculados os custos de tratamento para as duas formas de hanseníase: multibacilar e paucibacilar. Ressalta-se que não há padrão-ouro na detecção da hanseníase e a confirmação laboratorial auxilia na definição do tratamento. **RESULTADOS:** A idade média dos pacientes foi de 51,7 anos; 62,9% residiam na região metropolitana; 60% do sexo feminino; 88,6% classificados como multibacilares. A baciloscopia apresentou resultado positivo em 18 (51,43%) pacientes. O ML-Flow foi positivo em 22 (62,86%). Em pacientes multibacilares, o custo da estratégia baciloscopia foi de R$209,26 e do ML-Flow foi de R$93,82. Em pacientes paucibacilares, o custo total foi de R$89,51 e R$31,97, respectivamente. Na análise de sensibilidade bivariada foram reduzidos os custos de mão de obra e duplicado o custo do teste rápido, mesmo assim a estratégia ML-Flow permaneceu apresentando menor custo total. **CONCLUSÕES:** O ML-Flow é mais sensível e diagnosticou 4 (11,43%) casos a mais de casos de hanseníase do que a baciloscopia. Além disto, o novo teste diagnóstico apresentou menor custo total, independente da forma bacilar da doença. Estes resultados sugerem que a utilização do teste rápido para detecção de hanseníase proporciona economia de recursos.

PMD9: STANDARDS OF SURGICAL MATERIALS USAGE IN ANTERIOR CRUCIATE LIGAMENT (ACL) SURGERY IN BRAZIL UNDER THE PERSPECTIVE OF THE PRIVATE HEALTH CARE SYSTEM

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OBJECTIVES: To describe the standards of the surgical approach, in terms of material use and costs, for ACL injury under the Brazilian private health care system and evaluate epidemiological features on the patients suffering from this injury **METHODS:** A cross-sectional study using Evidencias-Kantar Health database of administrative claims regarding surgical procedures for ACL lesions. This database comprizes 4 million lives, all covered by 46 different private health insurance companies. All claims involving surgical therapy for ACL lesions throughout the year of 2014 were included. Only high cost materials were considered in cost calculation (low cost materials, surgical team fees, drugs and physical therapy were not included). **RESULTS:** There were 286 cases identified. Patients mean age was 31.64 years, 75.17% were males. In 84.61% of the cases there were associated meniscal injuries and surgical interventions were indicated for 86.7% of these (91% of the proposed meniscal interventions were meniscectomies). Concomitant chondroplasty was necessary in 76.22% of the cases, 94% of those by using bipolar radiofrequency. Regarding the use of interference screws, 23.77% of those were of the absorbable kind and 76.22% were made of titanium. Additional graft fixation with endobutton repair was needed in 27.6% of all cases. Considering pricing lists for a standard procedure (including shaver systems, guide systems for screws, interference screws), this costs U$1,945 per procedure. The use of absorbable screws increased the costs to U$2,370 and the additional use of bipolar radiofrequency for chondroplasty adds U$967 to the costs per procedure **CONCLUSIONS:** There is wide variation on the surgical materials used for ACL repair in Brazil. Since there is no scientific evidence of functional benefit by using absorbable screws, or either bipolar radiofrequency systems, a standardization of materials for ACL surgical repair would spare significant costs to private healthcare payers in Brazil

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PMD11: COST-EFFECTIVENESS OF THE USE OF 18FDG-PET/CT IN THE DETECTION OF RECURRENT DIFFERENTIATED THYROID CANCER

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OBJECTIVES: To estimate the cost-effectiveness of the addition of positron emission tomography with 18F-FDG (18FDG-PET/CT) to conventional methods in the detection of recurrent differentiated thyroid carcinoma (DTC). **METHODS:** An analytic decision model was developed, based on international guidelines and Ministry of Health´s recent clinical protocol. The reference population represented a hypothetical cohort of adult patients with high risk by initial stratification, submitted to total thyroidectomy and ablation with I131. Conventional staging was compared to the addition of 18FDG-PET/CT applied to subjects with negative results on scintigraphy with I131. Clinical parameters and technologies´ accuracy were based on literature evidence. The model was designed from the perspective of the Brazilian public health care system (SUS), with time horizon of 10 years. Effectiveness was measured by additional recurrent cases detected. Only direct medical costs were considered. 18FDG-PET/CT costs were estimated by micro-costing technique. Costs and benefits were discounted by 5%. Univariate deterministic and probabilistic sensitivity analyzes were performed to explore uncertainties, considering main clinical parameters, technologies´ accuracy, specific cost items and discount rate.**RESULTS:** With conventional strategy 1,875 cases of recurrence were identified after 10 years of follow-up. Use of 18FDG-PET/CT allowed detection of only 13 additional cases (1,888 cases on total), but at significant cost. As a result, each additional case of recurrence detected by 18FDG-PET/CT would cost R$ 477,633.05 in discounted values (US$ 296,666.50 in 2013 PPP rate). In univariate sensitivity analysis, parameters that produced greater reduction in ICER were 18FDG-PET/CT costs, accuracy of competing technologies and discount rate. Probabilistic sensitivity analysis showed considerable uncertainty about the costs and potential incremental benefits of 18FDG-PET/CT addition to conventional management. **CONCLUSIONS:** Although 18FDG-PET/CT inclusion to DTC metastatic recurrences detection promotes the identification of additional cases, the aggregate costs are very significant and its introduction is not cost-effective in the SUS perspective.

PMD12: EVALUACIÓN ECONÓMICA COMPLETA DEL ESCÁNER CERVICAL AVANZADO COMO AGENTE DIAGNÓSTICO EN PACIENTES MEXICANAS CON RIESGO ASOCIADO A CÁNCER DE CÉRVIX POR VPH EN MÉXICO

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OBJECTIVOS: Realizar un análisis de costo-efectividad del uso del escáner cervical (como agente diagnóstico en pacientes mexicanas con riesgo asociado a cáncer de Cérvix por VPH, desde el punto de vista del sector público de salud en México. **METODOLOGÍAS:** La población objetivo del estudio fueron pacientes que tuvieron resultados positivos en prueba de PAP y necesitan una segunda prueba para identificar verdaderos positivos. Para demostrar la eficiencia del escáner cervical en esta población se realizó un análisis de costo-efectividad mediante el diseño de un árbol de decisiones para comparar el escáner cervical vs colposcopía con un horizonte temporal de 5 años. Se considera como medida de eficacia los verdaderos positivos identificados por cada intervención, los costos calculados corresponde a los verdaderos positivos no identificados a tiempo y el costo de ambas pruebas. Se ejecutó un análisis de sensibilidad univariado modificando: el costo, la efectividad, el horizonte temporal, pacientes atendidos al año, se realizó también un análisis de sensibilidad probabilístico. **RESULTADOS:** Los resultados para escáner cervical mostraron un costo de $81,905,308.55 pesos con 13,380 verdaderos positivos identificados, para colposcopía el costo fue de $210,942,475.77 pesos con 8,134 verdaderos positivos identificados en el horizonte temporal de 5 años considerando que se pueden tratar 9,300 pacientes al año. Los análisis de sensibilidad demostraron que el escáner cervical siempre se mantuvo dominante al variar los parámetros que podrían generan mayor incertidumbre. **CONCLUSIONES:** La opción de escáner cervical es costo-efectiva para el sistema de salud pública en México siendo dominante frente a colposcopia, considerada el estándar de atención en mujeres que han dado positiva la prueba PAP, al identificar un mayor número de verdaderos positivos y de esa forma dar un tratamiento preventivo a pacientes con virus de VPH antes de desarrollar cáncer cervicouterino.

PMD13: EVALUACI"N DE COSTO-EFECTIVIDAD DE LA IMPLEMENTACI"N DE MONITOREO AMBULATORIO DE PRESI"N ARTERIAL VERSUS PERFIL DE PRESI"N ARTERIAL PARA EL DIAGN"STICO DE HIPERTENSI"N EN EL SISTEMA PÚBLICO CHILENO

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OBJECTIVOS: En Chile el diagnóstico de hipertensión arterial se basa en el Perfil de Presión Arterial (PPA), el cual tiene una sensibilidad y especificidad de 74,7% y 74,8% respectivamente. Por otro lado, el Monitoreo de Presión Arterial (MAPA) es considerado el Gold Standard de diagnóstico. El objetivo del presente estudio es evaluar la costo-efectividad de implementar MAPA versus PPA, para el diagnóstico de hipertensión arterial (HTA) desde la perspectiva del sistema público chileno. **METODOLOGÍAS:** Análisis de costo-efectividad. Se utilizó un modelo mixto (Árbol de Decisiones y Markov) para estimar costos (pesos chilenos 2014) y beneficios esperados (QALYS) en hombres y mujeres. Las probabilidades de transición y utilidades fueron obtenidas de la literatura, ponderando por la prevalencia de otros factores de riesgo cardiovascular. Los costos se extrajeron del estudio de verificación 2009 del Ministerio de Salud. Se utilizó una tasa de descuento de 3% para costos y utilidades, y se modeló un tiempo horizonte de 60 años. Los resultados son presentados como beneficios netos incrementales (BNI) y como razón incremental de costo efectividad (RICE). Esta última fue sensibilizada para múltiples parámetros. **RESULTADOS:** El costo esperado para MAPA fue menor al estimado para PPA, mientras

que los QALYs esperados fueron mayores, resultando una RICE de $-234.045 para hombres y $-1.867.799 para mujeres. Los BNI para distintos valores del umbral muestran que MAPA sigue siendo costo efectiva incluso con valores de umbral superiores a 3 producto interno bruto per capita (PIBpc). El análisis de sensibilidad determinístico de una vía evaluó cambios de +/- 10% en cada variable. En ningún caso la RICE sobrepasó el umbral de referencia para Chile de 1 PIBpc. **CONCLUSIONES:** MAPA es una estrategia diagnóstica costo-efectiva para el diagnóstico de HTA en el Sistema de Salud Público chileno.

PMD14: COSTO EFECTIVIDAD DE MÚLTIPLES ALTERNATIVAS DIAGN"STICAS EN PACIENTES CON SOSPECHA DE CÁNCER DE PULM"N EN COLOMBIA

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OBJECTIVOS: Determinar la eficiencia de múltiples alternativas diagnósticas en pacientes con lesiones sugestivas en las imágenes para el diagnóstico de cáncer de pulmón de célula no pequeña. **METODOLOGÍAS:** Se realizó un estudio de costo efectividad basado en un árbol de decisión desde la perspectiva del pagador de mediastinoscopia, aspiración guiada por ultrasonido endobronquial (EBUS), fibrobroncoscopia (TBNA), ultrasonido endoscópico (EUS) o EBUS+EUS en una cohorte hipotética de 100 pacientes de 65 años con lesiones en imágenes sugestivas de neoplasia con compromiso mediastinal. Los desenlaces se midieron en años de vida ganados (AVG). Se incluyeron costos médicos directos solamente obtenidos de prestadores y aseguradores. Los costos fueron expresados en dólares americanos con una tasa de cambio de 1 COP$= US$2.020. El horizonte temporal fue de 8 años con tasas de descuento de 0%, 3.5% y 6% solamente para los efectos. Se realizó análisis de sensibilidad probabilístico empleando simulación de Monte Carlo con 10.000 iteraciones. **RESULTADOS:** Los costos totales medios esperados de mediastinoscopia, EBUS, TBNA, EUS y EBUS+EUS para la cohorte fueron (US$) 135.900±3.998; 341.300 ± 3.241; 24.100 ± 5.704; 81.400± 9.033 y 391.800± 8.973 respectivamente. Los AVG proporcionados por cada alternativa fueron de 466,3 (rango: 408,9-523,7); 467,8 (rango: 412.4-523,1); 466,3 (rango: 408,9-523,7); 467,8 (rango: 412,4-523,1) y 468 (rango: 413,1-523) respectivamente. La mediastinoscopia y el EBUS solo fueron dominadas. La RCEI de EUS frente a TBNA fue de US$ 38.200/AVG adicional y la de EBUS+EUS frente a EUS sola fue de $1.552.000/AVG adicional. **CONCLUSIONES:** La TBNA es la alternativa diagnóstica más eficiente de cáncer de pulmón de célula no pequeña en el sistema de salud Colombiano para disponibilidades a pagar entre 1 y 3 veces el producto interno bruto per cápita. No obstante, el EUS y la combinación EBUS+EUS presentan razones de costo efectividad incremental que indican posibilidad de financiamiento pública.

PMD15: COST-EFFECTIVENESS ANALYSIS OF ONE-PIECE DRAINABLE POUCH VERSUS TWO-PIECE DRAINABLE POUCH FOR COLOSTOMATES UNDER THE PERSPECTIVE OF PATIENT'S OUT-OF-POCKET EXPENSES, IN BRAZIL

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OBJECTIVES: to develop a cost-effectiveness analysis of one-piece drainable pouch (OPDP) versus two-piece drainable pouch (TPDP) for colostomates under the perspective of patient's out-of-pocket expenses in Rio de Janeiro, Brazil. **METHODS:** data was collected from the prescriptions used for the colostomy pouch change and based on the best practices for the care and prevention of injuries in peristomal skin, according to the domiciliary visits from a stomotherapy service during the year 2014. Materials for the periestomal skin care and wound/dermatitis prevention were considered (US$ currency rate = R$3,20). **RESULTS:** the drainable pouch represented 36.3%(US$285.0) of the costs per patient/month for the OPDP and 54.3% (US$212.5) for the TPDP. However, costs related to the inputs needed for each pouch change (eg. adhesive removers, skin protective) represent 63.7% for the OPDP and 45.7% for the TPDP. Total costs with the OPDP was US$784.42 and US$391.06 for the TPDP drainable pouch, showing a cost-saving profile if the TPDP was chosen as the standard care (incremental –US$393.37). **CONCLUSIONS:** based on the patient's outcomes, the best practices regarding the periostomal skincare, the patient's preferences and costs, the adoption of the two-piece drainable pouch for colostomates shows to be cost-effective when compared to the one-piece drainable pouch. Further studies regarding the colostomate's quality of life are needed.

PMD16: ECONOMIC EVALUATION FOR THE RAPID TEST DPP® HIV-SYPHILIS ASSAY WITH IMMUNOCHROMATOGRAPHY IN PREGNANT WOMEN IN MEXICO

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OBJECTIVES: To analyze the incremental cost-effectiveness ratio (ICER) of the rapid test for HIV ½ and Treponema Pallidum DPP® HIV-Syphilis Assay in pregnant women compared with current diagnostic methods.**METHODS:** Cost-effectiveness analysis was conducted using a double-stage decision tree with a 75-year time horizon for pregnant women and child, from the Mexican public health perspective. The model captures the sensitivity and specificity of each comparator as well as confirmatory tests in positive cases. Congenital transmission was captured according to time-to-treatment, which varies across comparators. Costs and effectiveness data were taken from public health institutions, extracted from published literature or provided by the developers of the rapid test. Final outcomes were measured in ICER per life year gained (LYG). Cost-effectiveness was determined according to the 1GDP/per capita threshold established by the National Health Council in Mexico. **RESULTS:** DPP® HIV-Syphilis Assay was dominant compared to all other treatments with a total cost of MX$23,395.11 over 75 years, and an effectiveness of 20.457 LYG. **CONCLUSIONS:** The present study identified that the dual rapid test for HIV ½ and Syphilis, with the name of DPP® HIV-Syphilis Assay and with a price of

MX$105.00, is a cost-effective option for the early detection of HIV and Treponema Pallidum in pregnant women in the Mexican public health context.

PMD17: COSTO-EFECTIVIDAD DE LA CUANTIFICACI"N DE LA ACTIVIDAD ENZIMÁTICA EN LEUCOCITOS EN COMPARACI"N A SU NO REALIZACI"N PARA LA CONFIRMACI"N DIAGN"STICA DE LA MUCOPOLISACARIDOSIS TIPO IVA EN COLOMBIA

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OBJECTIVOS: Estimar la razón costo efectividad de la medición de la actividad enzimática de la galactosamina 6 sulfato sulfatasa (GALNS) en leucocitos en comparación con no hacer la medición de la actividad enzimática para la confirmación diagnóstica de la MPS IVA desde la perspectiva del pagador en Colombia **METODOLOGÍAS:** Estudio de análisis costo efectividad en el que se empleó como modelo un árbol de decisión. El desenlace fue los casos diagnosticados correctamente con MPS tipo IVA. Se incluyó los costos de la cuantificación enzimática de GALNS en leucocitos, consulta con genetista, consulta con especialidades médicas y costos de procedimientos diagnósticos. El horizonte temporal fue inferior a un año. Se realizó análisis de sensibilidad probabilístico (ASP). **RESULTADOS:** El costo incremental fue de -($99.165.014) pesos colombianos con una efectividad incremental de 20 casos. El ASP confirma los resultados de los datos basales, en que la cuantificación de la actividad enzimática GALNS fue menos costosa y más efectiva que el comparador.**CONCLUSIONES:** La cuantificación de la actividad enzimática GALNS es una tecnología dominante para la confirmación diagnóstica de MPS IVA comparado con no hacer la cuantificación de la actividad enzimática desde la perspectiva del pagador en Colombia.

PMD18: ANALISIS DE COSTO EFECTIVIDAD DEL DIAGNOSTICO DE LA DISTROFIA MUSCULAR DE DUCHENNE O BECKER EN COLOMBIA

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OBJECTIVOS: determinar desde la perspectiva del sistema de salud, cuál es el curso de acción con mayor beneficio neto (BN) para realizar el diagnóstico de las distrofias musculares de Duchenne o Becker en Colombia. **METODOLOGÍAS:** se construyeron árboles de decisiones y se compararon diferentes cursos de acción considerando las pruebas: Inmunohistoquímica (IHQ), Western Blot (WB), Reacción de la Polimerasa en Cadena Múltiplex (PCR Múltiplex), Prueba de Amplificación dependiente de Ligación Múltiple (MLPA) y la secuenciación completa del gen de la distrofina. El horizonte temporal es acorde a la duración de la extracción y análisis de las muestras. Las probabilidades de transición se obtuvieron de una revisión sistemática. Los costos se construyeron con metodología caso tipo, mediante el consenso de expertos, y la valoración de los recursos con consultas a laboratorios y al manual tarifario ISS 2001. Se realizaron análisis de sensibilidad determinísticos y de escenarios, con una o más alternativas no disponibles. Los valores se convirtieron de $ COP a $ USD de acuerdo a la tasa de cambio representativa del mercado promedio del año 2014 de $ 2.000,44. **RESULTADOS:** para el caso base, WB es una estrategia dominante, con un costo de 419,07 USD y una sensibilidad del 100%. Este resultado se mantiene mientras la sensibilidad de la técnica sea de 98,2% y su costo no supere 837,38 USD. Sí WB no está disponible, IHQ tendría el mayor BN, y en ausencia de las anteriores, la MLPA más secuenciación reportaría el BN más alto. **CONCLUSIONES:** WB es costo efectiva para el diagnóstico de pacientes con sospecha de distrofia muscular de Duchenne o Becker en el sistema de salud colombiano. La prueba IHQ se perfila como el second best. Si estas pruebas no se encuentran disponibles, MLPA más secuenciación sería la alternativa costo efectiva.

PMD19: COSTO-EFECTIVIDAD DEL DESFIBRILADOR EXTERNO AUTOMÁTICO (DEA) COMPARADO CON REANIMACIÓN CARDIOPULMONAR BÁSICA (RCP) EN COLOMBIA

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OBJECTIVOS: Estimar la costo-efectividad del DEA comparado con RCP en espacios de afluencia masiva de público. **METODOLOGÍAS:** Análisis de costo-efectividad con personas que presentan pérdida de conciencia en espacios de afluencia masiva. Los desenlaces incluyeron número de muertes evitadas y años de vida ganados en un horizonte temporal de un año. La identificación y medición de los costos directos se realizó con base en guías de manejo pre-hospitalario, consulta del Sistema de Información de Medicamentos (SISMED) y consulta con proveedores y expertos. El árbol de decisiones incluyó los eventos secuenciales que ocurren posterior a la reanimación con DEA o RCP, hasta la sobrevida al alta hospitalaria o la muerte. El modelo fue construido a partir de la revisión de estudios previos identificados en la literatura, y validado con expertos clínicos. Las probabilidades de transición fueron obtenidas de una revisión sistemática de la literatura. **RESULTADOS:** El uso del DEA es una estrategia más costosa pero más efectiva (menor probabilidad de muerte), con un costo por muerte evitada de cerca de 87 millones de pesos. Al expresar la muerte evitada en años de vida ganados, el DEA sería una alternativa altamente costo-efectiva teniendo en cuenta que la edad promedio de presentación del evento es de 65 años y la esperanza de vida en Colombia es alrededor de 75 años. **CONCLUSIONES:** Diversos países alrededor del mundo han implementado el DEA en espacios de afluencia masiva de público. Los resultados de este análisis sugieren que, de forma similar a lo reportado en otros estudios, el uso del DEA sería una alternativa altamente costo-efectiva. No obstante, los escenarios de atención para un paciente con paro cardio respiratorio varían enormemente en cuanto al lugar, recursos y personal de atención, por lo cual es fundamental integrar el programa de desfibrilación temprana a un sistema de cuidados cardiovasculares de emergencia.

PMD20: CUSTO-EFETIVIDADE DA CINTILOGRAFIA ÓSSEA DE CORPO INTEIRO NA AVALIAÇÃO PRE-TRANSPLANTE HEPÁTICO DE PACIENTES COM CARCINOMA HEPATOCELULAR NA REGIÃO SUL DO BRASIL

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OBJETIVOS: Avaliar a pertinência da solicitação de CO para pacientes com CHC para inclusão em lista para TxH, sob a perspectiva do hospital. **MÉTODOS:** É um estudo de coorte retrospectivo. Foram elegíveis para inclusão no estudo todos os pacientes adultos com CHC, transplantados com doador falecido, entre dezembro de 1997 e janeiro de 2013, em um hospital terciário, Complexo Hospitalar Santa Casa de Misericórdia de Porto Alegre, RS, Brasil. Foram analisados dados demográficos, etiologia da doença hepática subjacente e a gravidade da doença hepática de base, graduada de acordo com o escore Child-Turcotte-Pugh (CTP), estimada o mais próximo do dia do TxH. Os custos que compõem a realização da CO foram obtidos no Serviço de Medicina Nuclear do hospital e posteriormente agrupados pelo Departamento de Controladoria em três categorias: 1) custos de mão-de-obra; 2) custos de materiais/medicamentos (kit de material); e 3) custos administrativos (Overhead). Comparou-se as taxas de sobrevida e de recorrência do CHC entre 187 pacientes que realizaram CO na avaliação pré-transplante com a de 69 pacientes que não a realizaram. **RESULTADOS:** A análise do explante mostrou que, em ambos os grupos, CHC estava dentro dos critérios de Milão na maioria dos casos. Nenhuma das CO foi positiva para metástases. As taxas de sobrevida um e cinco anos pós-TxH foram de 81% e 69% nos que realizaram CO e de 78% e 62% nos que não a realizaram, respectivamente (p = 0,25). As taxas de recorrência, um e cinco anos após o TxH, em pacientes que realizaram CO foram de 4,8% e 10,7% e de 2,9% e 10,1% nos que não a realizaram, respectivamente (p = 0,46). **CONCLUSÕES:** A realização de CO gerou um gasto de US$ 27.582,914 e não apresentou uma relação de custo-efetividade.

PMD21: EVALUCI"N ECON"MICA COMPLETA DEL SISTEMA DE TERAPIA DE RADIACIÓN CON RAYOS X PARA EL TRATAMIENTO CÁNCER DE PRÓSTATA DE ALTO RIESGO EN MÉXICO

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OBJECTIVOS: Realizar una evaluación económica del sistema de terapia de radiación con rayos X vsacelerador lineal de alta energía en pacientes mexicanos, con cáncer de próstata de alto riesgo como tratamiento adjunto a terapia hormonal desde el punto de vista institucional. **METODOLOGÍAS:** Se realizó una revisión sistemática identificándose que la radioterapia de intensidad modulada (IMRT) es usada para el tratamiento del cáncer como adición a una terapia hormonal, los aceleradores lineales de alta energía utilizados en el país realizan esta técnica, de igual forma el sistema de tratamiento de radiación con rayos, por lo cual la eficacia y seguridad es la misma para ambas intervenciones, por lo cual se realizó una minimización de costos, comparando el costo total de ambos dispositivos en un horizonte temporal de 10 años, el costo anual equivalente y el costo por sesión de quimioterapia, se realizó un análisis de sensibilidad univariado. **RESULTADOS:** El sistema de terapia de radiación con rayos tuvo un costo de $132,969,600 y el acelerador lineal de alta tuvo un costo de $138,717,386.01, por lo cual hay un ahorro de $5,747,786.01 en los 10 años de horizonte temporal. En los resultados del costo anual equivalente, el costo de sesión de radioterapia y el análisis de sensibilidad se obtienen resultados similares por lo tanto se observa que en todos los casos el sistema de terapia de radiación con rayos X es una alternativa costo ahorradora respecto a las opciones actualmente utilizadas en las instituciones de salud públicas. **CONCLUSIONES:** El tratamiento de radioterapia con el sistema de terapia de radiación con rayos X, es una opción eficiente al compararlo con el acelerador lineal de alta energía ya que ambos dispositivos utilizan la misma técnica de radioterapia esto significa que tienen igual eficacia y seguridad, pero este nuevo dispositivo conlleva un menor costo de tratamiento.

PMD22: COST UTILITY ANALYSIS OF SPINAL CORD STIMULATION VS. REOPERATION IN THE TREATMENT OF FAILED BACK SURGERY SYNDROME IN COLOMBIA

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OBJECTIVES: Cost-Utility analysis of Spinal Cord Stimulation Rechargeable (SCS-RC) vs. reoperation in the treatment of Failed Back Surgery Syndrome (FBSS) in Colombia. **METHODS:** Through the adaptation of an economic model developed by Sigmatic Ltd t/a Abacus International for UK NICE submission, and previous data transferability analysis, a cost utility analysis was done comparing SCS-RC vs. Reoperation in patients with FBSS in Colombia. One short analytical decision tree and one long term Markov model were considered for model conceptualization of the health problem and treatment impact. The effectiveness and utility data was primarily based on data from the PROCESS trial combined with Colombian costing data. A 15 years horizon, a third party payer perspective and 3% discount rate for utilities and costs were assumed. The Health states considered, at annual cycles, were optimal pain relief, optimal pain relief with complications, sub-optimal pain relief, and sub-optimal pain relief with complications. Optimal pain relief occurs with a pain threshold of 50%. Incremental analysis along with univariate and probabilistic sensitivity analysis was done. **RESULTS:** SCS-RC had an incremental costs of US$11.223 and 1,09 incremental QALYs, with an ICER of US$10.293 which is far lower than the US$24.300 GDP Percapita recommended by the WHO as threshold for development countries and a 62,2% probability of been cost-effective, when probabilistic analysis was ran. **CONCLUSIONS:** SCS-RC showed a 62,2% probability of been cost-effective when compared to Reoperation in patients with FBSS in Colombia.

PMD23: PSYCHOMETRIC ANALYSIS AND VALIDATION OF THE PATIENT SATISFACTION WITH ORTHOPAEDIC AND PROSTHETIC MEDICAL DEVICES, MODUL CLIENT SATISFACTION WITH DEVICE (CSD)

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OBJECTIVES: Each Provider of Health Care Services (PHCS) is according to the law, obligated to manage its quality of health care services. To fulfil this role, it has to use a tool that is validated and territorially adapted. Outcomes of the survey reveal the weaknesses and the corrective measures can be taken. **METHODS:** The sample of patients with orthopaedic, neurologic and rheumatic diseases was from Specialized Hospital for Orthopaedic Prosthetics in Bratislava, Bratislava region, Slovak republic. It was made a translation and cross-cultural adaptation of CSD module into the Slovak language to evaluate weight, fit, durability, pain, abrasion, putting on device, comfort and look of orthosis and prosthesis medical devices. Extended psychometric analysis was done using the factor analysis (Horn´s Parallel Analysis, Exploratory Factor Analysis) and Rasch analysis (RA, Rating Scale model) (Scale diagnostic, Validity, Reliability, Dimensionality and Local independence, Differential item functioning (DIF)). **RESULTS:** Horn´s Parallel Analysis revealed one factor (loading factor >0.40). RA showed a correct functioning of the rating categories of the scale. As for the item fit, only one item 'It is easy to put on my device' slightly underfitted the model (Outfit MSQ = 0.720, Infit MSQ = 0.650) and item 'durability' overfitted the model (Outfit MSQ = 1.378, Infit MSQ = 1.291). The study showed a few similar allocations of items along the logit scale, weight and fit was easy to endorse, whereas the look and comfort of the orthosis were difficult to agree with. No local dependency was detected. The targeting of item difficulty to the patient ability was good. Omega reliability value of CSD-Sk was 0.9 (polychoric Cronbach's alpha level 0.9). No DIF was detected. **CONCLUSIONS:** Despite some limitations in terms of fit, psychometric properties of CSD-Sk are in line with previous analyses on the English, Swedish and Italian version of the tool.

PMD24: IMPROVING PATIENT QUALITY OF LIFE BY VERIFYING AND ENHANCING QUALITY OF ORTHOPAEDIC AND PROSTHETIC MEDICAL DEVICES

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OBJECTIVES: There is a lack of information about patient satisfaction with orthopaedic and prosthetic medical devices (OPMD). As they influence a compliance, tolerance and usefulness, it is important to obtain and valuate them. Also they can be useful for verifying and enhancing quality of OPMD, for improving quality management of health care provider as well as patient´s quality of life. **METHODS:** Evaluation of patient satisfaction with OPMD was realised on the sample of patients with orthopaedic, neurologic and rheumatic diseases from Specialized Hospital for Orthopaedic Prosthetics in Bratislava, Bratislava Region, Slovak Republic. It was used a translated and cross-cultural adapted module of Client Satisfaction with Devices (CSD-Sk). The weight, fit, durability, pain, abrasion, putting on device, comfort and look of OPMD were evaluated. It was used a 4 point Likert scale with answers strongly agree, agree, disagree, strongly disagree. **RESULTS:** Description of the study sample: age >60 n%=46.6, women n%=75.1, high school educated patients n%= 56.0. The most patients had problems with lower limbs (42.5%), followed by spine (26.9%) and combination lower limbs and spine (25.9%). In case of type of diseases the most patients had orthopaedic diseases (73.6%), combination orthopaedic and neurologic (13.5%) and neurologic diseases (7.3%). The most used OPMD were orthopaedic insoles (36.3%), waist belt (17.6%) and corset on the spine (5.2%). Overall patients were highly satisfied with OPMD. More than 50% responses on items were mostly strongly satisfied (63.2 – 51.8%), except durability (43.5%). The most negative responses were on fit (7.25%) and abrasion (6.22%). **CONCLUSIONS:** It was recorded a high satisfaction with OPMD among surveyed patients. Comparing our results to the previous analysis in the world we can reveal higher level of patient satisfaction. Hopefully we can conclude that Health Care Provider manages good quality of OPMD and these regulations may contribute to patient´s satisfying quality of life.

MEDICAL DEVICE/DIAGNOSTICS - Health Care Use & Policy Studies

PMD26: ECONOMIC VALUE OF STEMI PROGRAM INVESTMENT IN SAO PAULO, BRAZIL

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OBJECTIVES: For Sao Paulo, evaluate the clinical and economic impact of investments in programs to a) increase rate of timely hospital admissions (within 12 hours of symptom onset) for STEMI patients, and b) manage more STEMI patients with PCI versus alternative approaches (e.g. thrombolytics, no reperfusion). **METHODS:** Data from the RBSCA Registry, DataSUS, and a private Sao Paulo hospital were modeled to quantify the impact from STEMI treatment scenarios year-over-year from 2013-2018. Model inputs included morbidity and mortality, labor productivity (average wage), direct costs, and burden of disease (measured by disability-adjusted life-years and value-of-statistical-life). Outcomes are calculated up to 1 year after initial MI for admitted versus non-admitted populations, the latter group being divided according to treatment pathway: PCI, thrombolytics, no reperfusion, or CABG. Prospective outcomes through 2018 were modeled to calculate the value of continued investment in STEMI management **RESULTS:** From 2013-2018, an investment of 1.2M USD (EKGs, education, ambulances) to increase STEMI utilization at current catheterization laboratories would result in 2,031 lives saved and 22.0 million USD cost savings. **CONCLUSIONS:** Expenditures to improve STEMI management strategies in Sao Paulo showed favorable economic outcomes and mortality reduction when more patients were managed with PCI,

suggesting that continued national investment in STEMI management could further improve these rates, with greater cost savings achieved.

PMD27: CONSULTA AOS MEMBROS DE AGÊNCIAS INTERNACIONAIS DE ATS COMO ESTRATÉGIA DE INTERCÂMBIO DO CONHECIMENTO PRODUZIDO – O CASO DO PET-TC

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OBJETIVOS: Investigar entre as agências de Avaliação de Tecnologias em Saúde (ATS) a produção de estudos e a recomendação da utilização de PET-TC para o diagnóstico de metástases em pacientes com câncer de mama localmente avançado. **MÉTODOS:** Foi realizada consulta à INAHTA (The International Network of Agencies for Health Technology Assessment) e à REDETSA (Red de Evaluación de Tecnologias en Salud de las Américas), por meio de correio eletrônico, questionando a realização de estudos de ATS e de recomendações do PET-TC para o diagnóstico de metástases em pacientes com câncer de mama localmente avançado.**RESULTADOS:** Treze agências membro da INAHTA (24% de taxa de resposta) de doze países responderam. Dessas, seis informaram não ter avaliado o PET-TC para essa finalidade: ARSENIP-S; CDE; CRD; DAHTA @ DIMDI; HIS e NHC. A agência G-BA enviou material em alemão, que não foi apreciado. E ainda, 6 membros enviaram estudos relacionados à pergunta em questão: ASSR; CADTH; IETS; KCE; NHMRC CTC; MaHTAS. Na REDETSA, cinco membros de quatro países responderam ao questionamento, sendo que o Ministerio de Salud de Paraguay e a agência canadense, INESSS, informaram não ter avaliado o PET-TC para essa finalidade. Outros três membros enviaram estudos relacionados à pergunta em questão: IECS; IETS e o Ministerio de Salud y Protección Social de Colombia. Foi realizada busca nas bases NICE, National Guideline Clearinghouse, Avalia-T e UpToDate. Em todos os estudos analisados não houve recomendação para o uso do PET-TC como primeira opção para o diagnóstico de metástases em pacientes com câncer de mama localmente avançado. Porém, algumas agências salientaram a sua importância na confirmação de imagens convencionais não conclusivas. **CONCLUSÕES:** A estratégia de consulta à INAHTA e REDETSA é uma ferramenta útil para mapear a produção de estudos e recomendações pelos outros países, permitindo comparabilidade e possibilidade de adaptação ao contexto local.

PMD28: ECONOMIC IMPACT OF A VOLUMETRIC INFUSION PUMP (INFUSOMAT® SPACE) + CENTRAL ALARM MANAGEMENT (ONE VIEW), IN THE RISK PREVENTION IN INFUSION THERAPY IN THE INTENSIVE CARE UNIT (ICU) IN MEXICO

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OBJECTIVES: Medication errors are the most significant cause of medical injuries. In an attempt to reduce infusion errors, smart pumps were developed. These new infusion systems include hospital defined drug libraries with established dosing limits and other clinical advisories integrated into the system. The INFUSOMAT® SPACE + the CENTRAL ALARM MANAGEMENT, OneView® is an infusion + a monitoring system that offers clinical and economic benefits by increase safety in delivering IV medications, reducing hospital length of stay, providing an advanced or faster response to emergencies and improving workflows in the ICU. This analysis aims to estimate the economic impact of this new system on driving care toward evidence-based standards from the perspective of public health system (IMSS). **METHODS:** An economic impact analysis was developed. In order to obtain system efficacy and safety evidence, a literature search was driven. For medical errors in Mexico associated to infusion pumps, a retrospective analysis of medical claims during the last 4 years was conducted utilizing data from the National Commission of Medical Arbitration (CONAMED). Costs of ICU per day and adverse events were obtained from the IMSS Finance Direction and the Groups Related to Diagnosis (GRD). Costs were reported in US dollars (1 USD = 15.42 MXN). **RESULTS:** The use of the INFUSOMAT® SPACE + CENTRAL ALARM MANAGEMENT (ONE VIEW) in comparison with the current infusion pumps used in the IMSS, lead to better benefits, clinical and economic. In adverse events avoided due the lack of monitoring (5% reduction) and the expected length hospital stay (2.4% lower). Such reduction could represents $99,984,542 USD and $4,999,227 USD in savings for the IMSS per year, respectively. **CONCLUSIONS:** Adopting the INFUSOMAT® SPACE + CENTRAL ALARM MANAGEMENT (ONE VIEW) will reduce adverse events and will significant lower the costs associated with longer patient stays and complications at the IMSS ICU.

DISEASE- SPECIFIC STUDIES

DIABETES/ENDOCRINE DISORDERS - Clinical Outcomes Studies

PDB1: LA HIPOGLUCEMIA INCREMENTA EL GASTO EN SALUD Y DETERIORA LA PRODUCTIVIDAD DE PACIENTES CON DIABETES TIPO 1 Y TIPO 2

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La hipoglucemia es la dificultad más temida del tratamiento con insulina, con posible impacto social y sobre la utilización de recursos

en salud, aspectos evaluados infrecuentemente. **OBJECTIVOS:** Describir el impacto de la hipoglucemia sobre el desempeño social y el uso de recursos en salud, en pacientes argentinos del estudio HAT. **METODOLOGÍAS:** Estudio internacional, no intervencional que evaluó hipoglucemia severa (HS) y no severa (HNS) en pacientes con DM1 y DM2 tratados con insulina, mediante cuestionarios de autoreporte: el 1° transversal retrospectivo sobre periodos de 6 meses (HS) y 4 semanas (HNS) y el 2° prospectivo de 28 días (HS e HNS). **RESULTADOS:** Participaron 1253 pacientes (DM1: 433, DM2: 823); en promedio, edad 41.7 y 63 años, duración de la diabetes 17.6 y 15.4 años y HbA1c 8.1% y 7.8% para DM1 y DM2 respectivamente. En el período retrospectivo 82.7% (DM1) y 48.6% (DM2) informaron al menos 1 HNS; 37.9% y 16.3% comunicaron HS. En el período prospectivo, 88.1% y 44.6% reportaron HNS, 21.5% y 8.5% HS para DM1 y DM2 respectivamente. En el período retrospectivo, 24(6.1%) pacientes y 16(3.2%) requirieron admisión hospitalaria, 13(3.4%) y 23(5%) asistieron a consultas adicionales y 75(19.6%) y 84(18.2%) se comunicaron telefónicamente con algún integrante del sistema de salud, debido a una hipoglucemia para DM1 y DM2, respectivamente. Desempeño laboral (período retrospectivo) los pacientes faltaron 3.1(3) y 5.8(7.9), llegaron tarde 3.5(3.9) y 6.9(9.4), se retiraron antes 10.5(53.5) y 4.7(8.4) (días en promedio [DS]) para DM1 y DM2 respectivamente. En el período prospectivo faltaron 2.5(3) y 2.7(1.2), llegaron tarde 1.4(0.9) y 1.3(0.5), se retiraron antes 1.7(1) y 1.3(0.5) días para DM1/DM2 respectivamente. **CONCLUSIONES:** En una muestra de personas de la Argentina con DM1 y DM2 tratados con insulina, la hipoglucemia generó mayor uso de recursos en salud y deterioró el desempeño laboral/académico de los pacientes.

PDB2: EFETIVIDADE E SEGURANÇA DA GLARGINA VS DETEMIR E NPH NO TRATAMENTO DE PACIENTES COM DIABETES TIPO 1 – REVISÃO SISTEMÁTICA E METANÁLISE

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OBJETIVOS: O uso dos análogos de insulina para o tratamento de diabetes mellitus tipo 1 (DM1) tem sido difundido, mas os reais benefícios terapêuticos ainda carecem de evidências. O objetivo deste estudo foi avaliar efetividade e segurança da Glargina comparada ao Detemir ou NPH no tratamento de pacientes com DM1. **MÉTODOS:** Revisão sistemática com metanálise de estudos de coorte e registro, disponíveis nas bases de dados PUBMED, LILACS, CENTRAL (acessados janeiro de 2015), incluindo busca manual e literatura cinzenta. A metanálise foi conduzida no software Review Manager® 5.2, no modelo de efeitos randômicos. Os desfechos primários avaliados foram: glicohemoglobina (HB1Ac), ganho de peso e ocorrência de hipoglicemias. A avaliação da qualidade metodológica foi realizada utilizando a escala Newcastle. **RESULTADOS:** De um total de 1.085 publicações, 15 estudos foram incluídos: 11 (Glargina vs. NPH) e 4 (Glargina vs. Detemir). Na comparação glargina e NPH, a metanálise favoreceu glargina nos desfechos HB1Ac (pacientes adultos) e episódios hipoglicêmicos (p< 0,05). Ao comparar glargina e detemir os resultados foram significativos para ganho de peso, episódios de hipoglicemia severa e controle da glicemia capilar, favorecendo detemir (p< 0,05). A qualidade metodológica dos estudos foi moderada, destacando que 40% estudos foram financiados pela indústria farmacêutica. **CONCLUSÕES:** Os resultados dos estudos incluídos expressam o uso dos análogos e NPH na "vida real". Mostram que a insulina glargina apresentou melhores resultados de efetividade e segurança em relação a NPH, mas quando comparada a detemir apresentou piores resultados para os principais desfechos. A recomendação dos análogos como terapia de primeira linha deve ser vista com cautela, considerando a pequena diferença entre os desfechos nas metanálises, os potenciais conflitos de interesse e o custo de tratamento frente às alternativas terapêuticas existentes.

PDB3: EFFICACY AND SAFETY OF ANTIDIABETIC DRUGS AVAILABLE ON BRAZILIAN PUBLIC HEALTH SYSTEM (SUS) – REGULAR INSULIN, NPH INSULIN, METFORMIN, GLIBENCLAMIDE AND GLICLAZIDE – IN TREATMENT OF TYPE 2 DIABETES (T2DM) - SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: To evaluate the efficacy and safety of therapeutic alternatives provided in the SUS, in monotherapy and combinations for the treatment of T2DM. **METHODS:** Systematic review (SR) with meta-analysis of randomized controlled trials (RCTs) available in PubMed, LILACS, CENTRAL databases (October/2014), including manual and gray literature search. Meta-analysis was conducted in Review Manager®5.2 software by applying the random effects model. The primary outcomes were, concentration(%) of glycated hemoglobin (GHb), blood or plasma glucose concentrations and occurrence of adverse events. Methodological quality was assessed using the modified Jadad scale and Risk of bias according to the recommendations of the Cochrane Collaboration. **RESULTS:** There were included 33 RCT´s of the 9,715 achieved publications: 4 compared NPH Insulin + Regular Insulin (RI) vs. Glibenclamide, 1 (NPH + RI vs. NPH + Glibenclamide), 6 (NPH + IR vs. NPH + RI + metformin), 2 (NPH + RI + Glibenclamide vs. Glibenclamide + Metformin), 1 (NPH + Glibenclamide vs. RI + Glibenclamide), 1(Metformin vs. Gliclazide), 10 (Glibenclamide vs. Metformin) 1(Metformin vs. Metformin + gliclazide), 7 (Metformin vs Metformin + Glibenclamide), 10 (Glibenclamide vs Glibenclamide + Metformin) 3 (Glibenclamide vs. Gliclazide) and 1(Gliclazide vs. Glibenclamide + Metformin). The evidence points to satisfactory efficacy and safety profiles of the drugs available on SUS for the treatment of T2DM. Insulin preparations have greater GHb reduction capability, but a higher incidence of hypoclycemic episodes than oral antidiabetic agents, which have similar profile of efficacy and safety. Combination therapy followed a similar pattern. Studies on direct comparison between drugs support no sufficient evidence to rank then. **CONCLUSIONS:** Considering the efficacy and safety of medicines supplied by SUS, the choice of T2DM therapy depends on the stage of the disease and on patient's preferences. Insulin preparations should preferably be introduced to patients at more advanced stages of the disease.

PDB4: EFETIVIDADE CLÍNICA COMPARATIVA DO ANÁLOGO DE INSULINA GLARGINA PARA TRATAMENTO DE PACIENTES ACOMETIDOS POR DIABETES MELLITUS TIPO 1

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OBJETIVOS: Realizar análise de efetividade clínica comparativa do análogo de insulina de longa duração de ação glargina com a insulina NPH, durante 18 meses de acompanhamento de pacientes com diabetes mellitus tipo 1. **MÉTODOS:** Uma coorte prospectiva não concorrente de pacientes que receberam o análogo de insulina glargina incluídos no Protocolo Clínico e Diretrizes Terapêuticas (PCDT) da Secretaria Estadual de Saúde de Minas Gerais, Brasil. Para análise da efetividade clínica compararam-se os resultados laboratoriais de hemoglobina glicada (HbA1c) antes e após seis, 12 e 18 meses de uso de glargina. Avaliou-se, ainda, a redução das crises hipoglicêmicas e o controle glicêmico dos pacientes aos 18 meses de tratamento com o análogo, baseado em valores de referência encontrados na literatura. **RESULTADOS:** Foram incluídos no estudo 157 pacientes. Após 6 e 12 meses não houve diferença estatisticamente significativa entre os valores médios de Hb1Ac (valor p = 0,083 e 0,067, respectivamente). Aos 18 meses foi observada redução significativa para o parâmetro quando comparado ao valor quando em uso de NPH, variando de 8,86 ±1,82% a 8,55±1,82% (valor p=0,024). A redução das crises hipoglicêmicas foi relatada para 51% dos pacientes em todos os períodos avaliados. A porcentagem de pacientes com controle glicêmico variou de 20% em uso de NPH, para 24% aos 18 meses do uso de análogo. **CONCLUSÕES:** A análise dos valores de Hb1Ac demonstrou que o tratamento com o análogo glargina apresentou melhor efetividade clínica em 18 meses. A melhoria do controle glicêmico foi evidenciada, ainda, por meio da redução das crises hipoglicêmicas, porém, a porcentagem de pacientes com controle glicêmico foi de apenas 24%. Embora tenha sido observada a melhor efetividade da glargina, a escolha do medicamento como primeira linha deve ser embasada em vários critérios, como avaliação custo-efetividade, segurança e qualidade de vida do paciente.

PDB5: LONG-ACTING INSULIN ANALOGUES: A SYSTEMATIC REVIEW OF SYSTEMATIC REVIEWS

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OBJECTIVES: Long-acting insulin analogues are available in Brazil since 2002, although to this day, 13 years later, the public health system in Brazil does not make it available to citizens. The objective of this study is to conduct a systematic review of systematic reviews, in order to prove that there is sufficient primary studies on the effectiveness of long-acting insulin analogues to support decisions of governments that still do not provide these insulins to population. **METHODS:** A systematic review was conducted in accordance with PRISMA recommendations, including an exhaustive search in electronic databases Pubmed, Embase and Cochrane until February 2015. Only systematic reviews evaluating the long-acting insulin analogues glargine, detemir or degludec, compared with NPH insulin for type 1 diabetes were included. Two reviewers selected references independently. **RESULTS:** Were located 164 references. After analysis, were excluded 31 duplicates and 110 other studies due to inappropriate type of study, intervention, population or comparison. A total of 23 systematic reviews met the inclusion criteria. From the reviews, about four dozen randomized clinical trials were collected up. **CONCLUSIONS:** Given the large number of published studies, we can suggest that the reason for non-coverage in some countries is not the lack of studies, but the huge heterogeneity between them. This does not means they have to be discarded, but rather that a very detailed and effective meta-regression analysis is required. Many factors must be considered, such as age, time since diagnosis, associated insulin, how outcomes were measured, among others. Thus, affirm the need for more primary studies to elucidate the effectiveness of insulin analogues compared with NPH is a misconception.

PDB6: THERE IS EVIDENCE OF INCREASED RISK OF CANCER IN PATIENTS USING HUMAN INSULIN ANALOGUE GLARGINE FOR TREATMENT OF DIABETES MELLITUS - OVERVIEW BASED EVALUATION

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OBJECTIVES: The use of Glargine for the treatment of diabetes mellitus has been widespread, but recently generated concerns about the safety related to a supposed increased risk of cancer by its use. The aim of this study was to evaluate the safety of Glargine preparations in the treatment of diabetes compared to any other therapeutic options. **METHODS:** We examined the databases “The Cochrane Library” (via Bireme), Medline (via PubMed) and EMBASE (accessed December/2014). We sought to systematic reviews, cohort studies, case-control studies and randomized clinical trials that evaluated the association between the occurrence of any type of cancer and the use of Glargine. Also searched for health technology assessments on websites of international agencies and of the Brazilian Network for Health Technology Assessment. The quality evaluation of the studies was performed according to the GRADE system for systematic reviews, Newcastle-Ottawa scale for cohort and case-control studies and Jadad modified scale for clinical trials. **RESULTS:** Eleven studies were included, 3 systematic reviews , 4 cohorts, 3 case-control and a randomized clinical trial. The studies showed good methodological quality ratings. There is no statistically significant results to associate the overall development of cancer among patients who used Glargine compared with patients treated with human insulin or oral antidiabetic therapy. The data with respect to specific types of cancer also presented inconclusiveevidence. We didn´t found health technology assessments of international agencies on the subject, only warnings about a possible association therapy with Glargine analog with cancer. **CONCLUSIONS:** Based on the available scientific evidence there is no clear relationship between the use of Glargine and cancer development. It´s use has apparently similar safety profile as of the therapeutic alternatives available. Therefore, is not recommended discontinuation of therapy with Glargine for security reasons related to the occurrence of cancer.

PDB7: ANÁLISIS DE IMPACTO PRESUPUESTAL DE DETEMIR EN PACIENTES DIABÉTICOS TRATADOS CON INSULINAS ANÁLOGAS

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OBJECTIVOS: determinar el impacto presupuestal que tendría la adopción de detemir en pacientes diabéticos con tratamiento de insulina análogas, desde la perspectiva del tercer pagador. **METODOLOGÍAS:** se desarrolló un modelo de análisis de impacto presupuestal a partir de un modelo de económico que mostró a determir costo-util frente a NPH y glargina. El análisis de impacto presupuestal contempló un horizonte temporal de tres años a partir de una incidencia de 135.508 casos nuevos y una prevalencia del 4% sobre la población general colombiana. La población objetivo fue pacientes susceptibles al uso de insulinas análogas, según registros de una aseguradora colombiana. Se plantearon dos escenarios de comparación, uno manteniendo la participación constante de las tecnologías y otro aumentando la participación de detemir con tasas de remplazo por año incrementadas paulatinamente hasta lograr una participación del 40%. Los costos empleados fueron calculados de acuerdo con los valores del modelo previamente desarrollado, en el que se contempla eventos asociados y el costo de tecnología junto a su administración y controles de seguimiento. **RESULTADOS:** para una población objeto de 396,718 pacientes prevalentes y 27.881 casos nuevos por año, se estimó que desde el primer año en el escenario con participación incrementada se generían un ahorro de 48 millones de pesos ($1.019.854,77 frente a $1.019.903,50). Al final del horizonte temporal evaluado se identificó un ahorro acumulado de $292.432.052,18 lo que significa un ahorro de inversión per cápita de $6,07 por habitante. **CONCLUSIONES:** de acuerdo con los resultados obtenidos para la población objeto, la utilización de detemir aumentando la tasa de remplazo hace que esta sea una tecnología con posibilidad de generar grandes ahorros dentro del sistema de salud colombiano.

PDB8: IMPACTO PRESUPUESTARIO DE INCORPORAR LINAGLIPTINA PARA EL TRATAMIENTO DE LA DIABETES EN ARGENTINA

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OBJECTIVOS: Evaluar el impacto presupuestario (IP) de incorporar Linagliptina como opción para el tratamiento de la DMT2 en Argentina, en pacientes mayores de 18 años que no logran un adecuado control glucémico con metformina. **METODOLOGÍAS:** Se utilizó un modelo impacto presupuestario desarrollado en MS Excel. Se consideró la perspectiva de la Seguridad Social y un horizonte temporal de 5 años. La prevalencia de DMT2 se obtuvo de la Encuesta Nacional de Factores de Riesgo realizada por el Ministerio de Salud de la Nación. Se analizaron los gastos de farmacia de los agentes antidiabéticos orales (OAAS) y de los eventos adversos (Hipoglucemias). El costo de los OAAS se obtuvo del Manual Farmacéutico (www.alfabeta.net) y el de los eventos adversos de información de la literatura. Las participaciones del mercado se obtuvieron de la base de datos QUALIDIAB, estudios de mercado y datos proporcionados por Boehringer Ingelheim. Los resultados se expresan en términos de impacto presupuestario total y por paciente (PP). La robustez de los resultados se evaluó mediante análisis de sensibilidad univariado. **RESULTADOS:** Incorporar Linagliptina como opción terapéutica tendría un impacto presupuestario acumulado (5 años) del 0,53% ó $45 por paciente. El gasto en farmacia se incrementaría 0,28%, 1,19%, 1,55% 2,09% y 3,73% en los años 1 a 5 respectivamente. El gasto por eventos adversos descendería 0,32%, 0,85%, 1,33%, 1,78% y 3,31% en los años 1 a 5 respectivamente. En el análisis de sensibilidad el costo total oscila entre 0,30% y 0,75% de impacto presupuestario acumulado. **CONCLUSIONES:** Los resultados demuestran que, de acuerdo a los supuestos considerados, el impacto presupuestario acumulado en 5 años de incorporar Linagliptina como opción terapéutica de la DMT2 en Argentina es mínimo.

PDB9: COSTO DE DIABETES MELLITUS NO COMPLICADA EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos de Diabetes Mellitus No Complicada (DMNC) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con DMNC afiliados al Seguro Público de Salud (Seguro Integral de Salud) en el Perú. Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para el diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de DMNC es de 43,758 personas para el año 2014 (Prevalencia de DMNC: 7.6%). El costo total para DMNC es de 19,913,075 dólares correspondiendo a diagnóstico 619,605 dólares (3.1%), tratamiento 15,359,824 dólares (77.1%) y para seguimiento 3,933,646 dólares (19.8%). El costo fijo correspondió a 3,594,244 dólares (18.0%) y el costo variable a 16, 318,831 dólares (82.0%). **CONCLUSIONES:** El costo anual total para Diabetes Mellitus No Complicada en el Perú se estimó en 19,913,075 dólares. Este monto representa el 14.3% del presupuesto ejecutado el año 2014 en el Programa Presupuestal 018 Enfermedades no Transmisibles.

PDB10: ECONOMIC BURDEN OF TYPE 2 DIABETES MELLITUS FOR MEXICO

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OBJECTIVOS: Se utilizó un análisis de evaluación económica parcial para analizar los costos médicos directos de las complicaciones micro y vasculares derivada de la diabetes mellitus tipo 2 (DM2), desde el punto de vista institucional en Mëxico **METODOLOGÍAS:** Un análisis de evaluación ecónomica parcial fue usado para el análisis de los costo promedios anual. La población objetivo del estudios son los Pacientes mayores de 18 años de edad diagnosticados con Diabetes Mellitus tipo 2, que presenten algún tipo de complicación relacionada con la DM2. Este análisis pone atención especial en las enfermedades (cardiovascular, renal, microvascular y complicaciones oftamológicos). Literatura médica de México fue revisada para obtener costos de la DM2 como el de las complicaciones. Asimismo, fue revisada las guías de práctica clínica para estimar el uso de recurso y finalmente esta información fue validada por médicos especialistas de México. Solo los costos médicos directos fue estimados como medicamentos, laboratorios, consultas médicas y hospitalizaciones. Se usaron los grupos relacionados de diagnosticos y costos unitarios del IMSS. para calcular los máximos y mínimos de las complicaciones relacionadas con la DM2, se varió un 10% más o menos sobre el costo promedio por complicación; **RESULTADOS:** Ls complicaciones macro y microvasculares relacionadas con DM2 fueron muy costosas en 2014 en Mëxico, siendo las más costosas:hemodialisis durante el primer año $664,694.50, evento cerebrovascular durante el primer año $381,366.21, insuficiencia cardiaca primer año $245,536.03 e infarto al miocardio $167,187.04. Con respecto al manejo de costos relacionados al tratamiento de complicaciones de la DM2, destacamos el costo de la suspensión de IECA por eventos adversos los cuales se calcularon por el panel de expertos en $30,000.00 pesos **CONCLUSIONES:** el costo promedio de las complicaciones macro y microvasculares son alto en pacientes mexicano con DM2.

PDB11: USO DE RECURSOS Y COSTOS RELACIONADOS AL TRATAMIENTO DE COMPLICACIONES DE LA DIABETES MELLITUS TIPO 2 (DMT2) EN COLOMBIA. UNA ESTIMACION BASADA EN GUIAS DE PRACTICA CLINICA (GPC)

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OBJECTIVOS: Estimar desde la perspectiva institucional, el uso de recursos y costos relacionados con complicaciones del paciente con DMT2en Colombia. **METODOLOGÍAS:** Microcosteo del caso tipo para complicaciones de la diabetes (agudas y crónicas), sin costo del tratamiento antidiabético y ponderando por probabilidad de ocurrencia. Los costos son hospitalarios, identificados y medidos según las GPC aplicadas en Colombia y su valoración se basó en precios de referencia institucional. Sólo la nefropatía se costeó por año, las demás por evento. La probabilidad se tomó de la incidencia en Colombia para cada complicación (excepto las hipoglucemias obtenidas de literatura internacional). Finalmente se realizó un análisis de sensibilidad probabilístico (simulación Montecarlo). **RESULTADOS:** En costo contable promedio para cada tipo de complicación fue: hipoglucemias US$1.138, retinopatía US$966, neuropatía periférica US$7.023, nefropatía US$136.734, síndrome coronario agudo (SCA) US$7.255 y accidente cerebrovascular (ACV) US$8.089. Las 3 intervenciones más costosas al integrar las probabilidades de ocurrencia son: infarto al miocardio US$13.100, hemodiálisis US$1.429 y nefropatía con tratamiento médico US$1.300. Otras intervenciones a destacar son: trasplante renal US$795, falla cardiaca US$690, diálisis peritoneal US$610, pie diabético US$564 e hipoglucemia moderada US$274. El análisis de sensibilidad confirma la robustez en los resultados, permitiendo determinar que los recursos más influyentes son: UCI para hipoglucemia, coagulación en retinopatías, diálisis en nefropatías, medicamentos en neuropatías periféricas y, procedimientos especializados en SCA y ACV.**CONCLUSIONES:** En Colombia, el manejo de las complicaciones de la DMT2, representan un elevado costo, especialmente si se comparan con la Unidad de Pago Capitado (UPC del régimen contributivo al 2013 fue US$304,39). Se observó que aquellas más costosas consumen recursos de alta tecnología y requieren intervenciones con mayor frecuencia (dada su probabilidad de ocurrencia), por lo que sería interesante analizar el efecto económico de controlar su incidencia mediante programas especializados en el manejo de DMT2.

PDB12: ESTIMACION DEL COSTO DE TRATAMIENTO DE UN EVENTO MODERADO VERSUS UNO SEVERO DE HIPOGLUCEMIA EN PACIENTES CON DIABETES MELLITUS TIPO 2 EN MEXICO DESDE LA OPINION DE EXPERTOS

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OBJECTIVOS: Estimar el costo de tratamiento de eventos moderados y severos de hipoglucemia a través de la opinión de expertos mexicanos, en pacientes con Diabetes Mellitus Tipo 2. **METODOLOGÍAS:** Se aplicó un cuestionario de 24 preguntas a médicos endocrinólogos de las instituciones más representativas del país. Las respuestas de los médicos evaluaron el uso y frecuencia de recursos médicos relacionados al tratamiento de eventos de hipoglucemia en dos categorías: moderados y severos. Se extrajeron costos médicos directos institucionales (Compras públicas y tabularios de precios) para adoptar la perspectiva pública del sistema nacional en salud. Los resultados se expresaron en estimaciones medias, resultado de un análisis estadístico de todas las respuestas. Las características basales de los pacientes se relacionaron con los resultados obtenidos. **RESULTADOS:** En pacientes mexicanos con un promedio de edad de 44 años (61% mujeres), y con un nivel promedio de HbA1c de 9.7% (57% con HbA1c≥8%), los eventos moderados y severos de hipoglucemia reportaron un costo estimado de tratamiento de US$609.00 y US$6,385 respectivamente. Los principales detonadores del gasto en eventos severos de hipoglucemia fueron la hospitalización, la estancia en la unidad de cuidados intensivos (UCI) y las visitas a médicos especializados. El costo de medicamentos y estudios de laboratorio y gabinetes también fueron considerados entre los costos totales de atención, sin que representaran un gran factor diferenciador entre los tipos de eventos considerados. **CONCLUSIONES:** El costo promedio de tratamiento de un evento moderado de hipoglucemia es 90% menos costoso que el tratamiento de uno severo, esto de acuerdo a lo evaluado por la opinión de un panel de médicos endocrinólogos mexicanos en

una encuesta de 24 preguntas. La necesidad de hospitalización, la estancia en UCI así como las consultas de especialidad resultaron ser los componentes que más detonan los costos.

PDB13: INCIDENCIA E IMPORTES ASOCIADOS A LAS ATENCIONES POR HIPOGLICEMIA GRAVE EN PACIENTES CON DIABETES MELLITUS TIPO 2 EN TRATAMIENTO CON ANTIDIABÉTICOS ORALES EN ECUADOR

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OBJECTIVOS: Caracterizar la población de pacientes con diabetes mellitus tipo 2 (DM 2) en tratamiento con antidiabéticos orales (ADOs) atendidos en la Seguridad Social del Ecuador, así como estimar la incidencia y los importes directos de la hipoglicemia grave que requiere atención médica. **METODOLOGÍAS:** Se realizó un estudio observacional descriptivo con datos del 2013. Se siguió a la población de estudio, retrospectivamente, hasta el primer episodio de hipoglicemia grave y se calculó la incidencia, estratificada por edad, sexo y régimen antidiabético. Para identificar los episodios de hipoglicemia grave se empleó el algoritmo de Ginde et al., adaptado a la clasificación CIE-10. Se estimó el importe medio y total de todos los episodios, estratificando según tipo y nivel de atención. **RESULTADOS:** La incidencia de hipoglicemia grave fue de 41,4 por 1.000 personas-año. La tasa fue mayor en pacientes de más de 64 años (52,1 episodios por 1.000 personas-año) y superior en mujeres que en hombres (45,6 versus 37,7 por 1.000 personas-año). Los pacientes que recibían tratamiento combinado con ADOs e insulina tuvieron mayores tasas que los tratados sólo con ADOs, siendo máxima la incidencia con metformina e insulina (122,4 por 1.000 personas-año). La mediana del importe de la atención asociada a un episodio de hipoglicemia grave fue de 275,95 dólares estadounidenses; el importe del total de episodios identificados en 2013 fue 2.045.299 dólares estadounidenses.**CONCLUSIONES:** La hipoglicemia grave es un efecto adverso frecuente en pacientes con DM 2 en tratamiento con ADOs que genera importantes gastos para la Seguridad Social del Ecuador. Esto pone de relieve la importancia de mantener la vigilancia y de potenciar estrategias para disminuir estos episodios potencialmente evitables.

PDB14: COST-EFFECTIVENESS OF CANAGLIFLOZIN (CANA) VERSUS SITAGLIPTIN (SITA) AS ADD-ON TO METFORMIN PLUS SULFONYLUREA IN PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) IN BRAZIL

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OBJECTIVES: To assess the cost-effectiveness of CANA versus SITA in patients with T2DM inadequately controlled with metformin and sulfonylurea from the perspective of the Brazilian private healthcare system.**METHODS:** The validated Economics and Health Outcomes Model of T2DM (ECHO-T2DM) was used to estimate the cost-effectiveness of CANA 100 and 300 mg versus SITA 100 mg added to metformin and sulfonylurea over a 20-year horizon. Patient characteristics were obtained from a pooled analysis of two CANA trials as add-on to metformin and sulfonylurea (DIA3002 and DIA3015). Efficacy and adverse event inputs were sourced from DIA3002 for CANA 100 mg and from DIA3002/DIA3015 for CANA 300 mg and SITA. Pharmaceutical costs were sourced from list prices; hospitalizations and resource use were from a medical claims database. Outcomes and costs were discounted at 5%. Sensitivity analyses were conducted that varied parameters relevant to the Brazilian setting, including using data from Latin American patients in CANA trials. **RESULTS:** CANA 100 and 300 mg were associated with QALY gains of 0.09 and 0.21 and mean cost increases of R$2,403 and R$2,947 relative to SITA. Non-medication cost offsets were seen with CANA 100 and 300 mg versus SITA (0.3% and 2.0%). CANA 100 mg was cost-effective per WHO criteria (<3 times the gross domestic product [GDP] per capita) and CANA 300 mg was very cost-effective (<1 times the GDP per capita) based on GDP per capita (R$26,082), with incremental cost-effectiveness ratios of R$27,755 and R$13,904 per QALY gained, respectively. The cost-effectiveness of CANA versus SITA was robust to different specifications in the sensitivity analyses. **CONCLUSIONS:** These results suggest that adding CANA 100 or 300 mg versus SITA in patients with T2DM inadequately controlled on metformin and sulfonylurea would be a more efficient use of healthcare resources in Brazil.

PDB15: ANALISIS DE COSTO-EFECTIVIDAD DE LA EDUCACION DE PACIENTES CON DIABETES TIPO 2 POR PARES

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OBJECTIVOS: Evaluar la costo-efectividad de la educación de pacientes con diabetes tipo 2 (DMT2) educados por un equipo profesional de educadores (educación tradicional) versus educación y apoyo impartida por pares con diabetes. **METODOLOGÍAS:** Análisis de costo-efectividad en base a un estudio clínico prospectivo desarrollado en la ciudad de La Plata, durante 12 meses, sobre 199 personas con DMT2, divididos en 2 grupos, uno que recibió educación tradicional (ET) y otro que recibió educación a través de personas con diabetes. Se consideró el cambio en HbA1c como indicador primario de efectividad y otros indicadores secundarios (glucemia, presión arterial e IMC). Se estimó el costo directo de cada estrategia según los recursos utilizados en el estudio clínico, evaluándose tres escenarios de costos para la estrategia de educación de pares (E1: educadores voluntarios; E2: renta parcial de los pares educadores; E3: renta total) Se realizó un análisis de sensibilidad univariado para evaluar la robustez de los resultados obtenidos. **RESULTADOS:**Ambos grupos tuvieron efectos positivos similares en los indicadores clínicos y metabólicos. La educación a través de pares logro un descenso de HbA1c no inferior al logrado por la ET (-0,28% vs.-0,29%). El costo por unidad de % de HbA1c descendido fue de $2621 en la ET; y en la estrategia de educación a través de pares fue de $1508, $1779 y $2071, para E1, E2 y E3 respectivamente. Por cada $100 invertidos se logró descender 0,04% de HbA1c con la estrategia de ET, y 0,07% en E1,

0,06% en E2 y 0,05% en E3. El análisis de sensibilidad demostró la robustez de los resultados obtenidos. **CONCLUSIONES:** La estrategia de educación a personas con DMT2, complementaria al control y tratamiento de la enfermedad a través de pares, es costo-efectiva respecto a la de educación tradicional.

PDB16: COSTO EFECTIVIDAD Y COSTO UTILIDAD DEL USO DE UNDECANOATO DE TESTOSTERONA INYECTABLE EN PACIENTES CON HIPOGONADISMO Y DIABETES MELLITUS TIPO 2 EN COLOMBIA

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OBJECTIVOS: evaluar la costo-efectividad y costo-utilidad del uso del undecanoato de testosterona como terapia de reemplazo y coadyuvancia en pacientes con hipogonadismo asociado a diabetes mellitus tipo 2 en Colombia, desde la perspectiva del tercero pagador. **METODOLOGÍAS:** se diseñó un modelo de Markov tipo Montecarlo, donde se simula la historia natural del hipogonadismo asociado a diabetes mellitus tipo 2, por medio de una cohorte de 1000 pacientes donde se simulan las variaciones en HbA1c trimestralmente y acorde a estas el riesgo de desarrollar eventos macrovasculares o muerte en un horizonte temporal de diez años. Los parámetros fueron utilizados según los intervalos de confianza de los estudios clínicos y los costos se estimaron a partir de bases de datos de aseguradores y presentados en pesos colombianos del 2014. Se corrieron 10.000 iteraciones del modelo y los resultados son presentados en términos de años de vida ajustados por calidad y años de vida. **RESULTADOS:** el uso de undecanoato de testosterona mostró mayor efectividad tanto en años de vida (7,83) como en años de vida ajustados por calidad (6,32) con respecto a no tratar el hipogonadismo que fue de 7,74 y 6,24 para un paciente diabético promedio. Con respecto a los costos, el tratar con undecanoato de testosterona se estimó en $16.860.744 frente a $14.060.358 de un paciente sin tratamiento. Al aplicar una tasa de descuento del 5% anual las razones de costo-efectividad incremental serían de $28.310.750 por años de vida salvados y $35.794.244 por años de vida ajustados por calidad, valores que estarían por debajo del umbral aceptado para Colombia. **CONCLUSIONES:** el uso del undecanoato de testosterona es costo-efectivo para pacientes con hipogonadismo asociado a diabetes mellitus tipo 2 en Colombia, bajo los desenlaces de años de vida y años de vida ajustados por calidad en las condiciones analizadas.

PDB17: DIABETES DURATION AND SEVERITY AND LABOUR MARKET OUTCOMES IN MEXICO

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OBJECTIVES: To investigate the relationship of different dimensions of diabetes with employment chances, labour income and working hours using panel data and biomarker information for Mexico. **METHODS:** I use three waves (2002, 2005, 2009) of the Mexican Family Life Survey to estimate panel data fixed effects models of the relationship of self-reported diabetes and diabetes duration with labour market outcomes. Further, using glycated hemoglobin (HbA1c) measurements from a sub-sample of survey participants in 2009, I investigate how this relationship changes according to diabetes severity and if there are differences between diagnosed and undiagnosed people with diabetes **RESULTS:** I find robust evidence for a reduction in employment chances of about 5 percentage points (pp) ($p<0.05$) for Mexican men and women, while I find no effects for wages or working hours. I also find evidence that the main adverse effects appear within the first two years after diagnosis for women and after about 15 years after diagnosis for men. For diabetes severity, the main adverse effects are found for those with self-reported diabetes and an HbA1c between 6.5%–8%. For undiagnosed diabetes no effects are found. **CONCLUSIONS:** I find robust evidence that diabetes reduces employment chances for men and women in Mexico. The relationship does not appear to be linear with diabetes duration and appears early after diagnosis for women and relatively late for men. So far I find no strong evidence that the severity of diabetes could be an important driver of these adverse effects, however, this last part of the analysis is limited by the cross-sectional nature of the biomarker data and its reduced sample size. Overall, the results are indicative of an employment penalty of diabetes that might not be solely driven by the health effects of diabetes.

DIABETES/ENDOCRINE DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PDB18: TYPE II DIABETES PREVALENCE, HYPOGLYCEMIA EPISODES, AND HBA1C CONTROL IN BRAZIL

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OBJECTIVES: Diabetes mellitus type II (DM2), a highly prevalent disease worldwide, negatively impacts public health. However, epidemiology data regarding DM2 are very scarce in Brazil. This study aims to understand DM2 prevalence and control of diabetic symptoms, such as HbA1c levels and hypoglycemia, in Brazil. **METHODS:** Data were derived from the 2011 & 2012 Brazil National Health and Wellness Survey, an internet-based general health survey, stratified to be representative of age and gender. Among 24,000 total respondents, 1,026 reported a DM2 diagnosis, further subdivided by HbA1c levels: “controlled,” indicated by HbA1c<7% (n=57); “uncontrolled,” indicated by HbA1c≥7% (n=67); and unknown HbA1c (n=902). Additionally, respondents were categorized by hypoglycemia experience in the past three months: not experienced (n=186), experienced (n=701), and unknown (n=139). The Morisky Medication Adherence Scale-4 was used to categorize respondents with no non-adherent behaviors regarding their diabetes medication as “adherent.” Results were weighted to be representative of the adult Brazilian population. One-way ANOVAs and chi-squares were used to examine group differences. **RESULTS:** In Brazil, projected estimates reveal that 4.0% (n=5,585,272) of the adult population have a DM2 diagnosis. Of those diagnosed, average age was 56.5 years old, 53.2% are female, 54.3% are white, 80.9% have less than a degree, 69.3% make less than R$6,500 annually, 68.4% have public insurance, and 73.5% are overweight or obese.

Regarding HbA1c levels, only 4.0% were controlled, 5.4% were uncontrolled, and 90.6% were unknown. Additionally, 17.0% experienced recent hypoglycemia, 69.6% did not, and 13.5% did not know. The majority were taking diabetes medication (86.4%), but only 37.2% were adherent. **CONCLUSIONS:** Although most Brazilian DM2 respondents are currently taking prescription medication, few are adherent to their medication and have adequate knowledge about their symptoms. Considering public health implications of diabetes, awareness, education programs, and pharmaceutical care for DM2 patients may improve adherence to treatment.

PDB19: RECENT HYPOGLYCEMIA EPISODES ARE ASSOCIATED WITH POORER QUALITY OF LIFE, HEALTHCARE RESOURCE USE, AND WORK IMPAIRMENT AMONG PATIENTS WITH TYPE II DIABETES IN BRAZIL

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OBJECTIVES: Hypoglycemic episodes, symptoms presented by patients with diabetes mellitus type II (DM2), are associated with increased mortality and decreased health-related quality of life (HRQoL). However, few studies on hypoglycemia and its relationship to outcomes exist in Brazil. This study investigated the association of hypoglycemia episodes with health outcomes for Brazilian DM2 patients. **METHODS:** Data are analyzed from the 2011, 2012, & 2014 Brazil National Health and Wellness Survey (NHWS), an internet-based general health survey stratified to be representative of age and gender. Among 33,082 total respondents, 1,565 reported having been diagnosed with DM2. Respondents were categorized into groups based on hypoglycemic episodes in the past three months: not experienced (n=1,100) and experienced (n=259). Those whose hypoglycemia was unknown (n=206) were excluded from analyses. Outcomes included HRQoL, work productivity loss, and healthcare resource use in the past 6 months. Generalized linear models were used to control for demographic and health characteristics. **RESULTS:** Recent hypoglycemia was experienced by 16.5% of DM2 respondents (age=53.47 year; 46.0% female) in Brazil. Controlling for covariates, those with recent hypoglycemia reported worse mean HRQoL for mental (43.78 vs. 47.38), physical (43.92 vs. 47.16), and health utility (0.645 vs. 0.696) scores compared with respondents who did not recently experience hypoglycemia. Respondents with recently (vs. not recently) experienced hypoglycemia also reported higher mean presenteeism (33.5% vs. 20.6%), overall work impairment (37.27% vs. 24.75%), and activity impairment (40.73% vs. 27.90%). Lastly, those with recently (vs. not recently) experienced hypoglycemia reported higher mean number of doctor visits (8.53 vs. 5.87), emergency room visits (0.92 vs. 0.65), and hospitalizations (0.53 vs. 0.26).**CONCLUSIONS:** Recent hypoglycemia episodes are associated with significant burden in HRQoL, healthcare resource use, work-related productivity loss and activity impairment. These results support the need for development of health strategies to improve outcomes related to DM2 in Brazil.

PDB20: USE OF COMPLEMENTARY AND ALTERNATIVE MEDICINES (CAM) IN DIABETICS PATIENTS IN QUETTA

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OBJECTIVES: The current study aimed to determine the prevalence of Complementary and Alternative Medicines (CAM) and its types used in diabetes patients in Quetta, Pakistan. **METHODS:** A cross-sectional study was undertaken with diabetes patients, attending different government and private hospitals and clinic of Quetta city, Pakistan. A self-administered questionnaire containing 16 questions (5questions related with disease and remaining questions were for information regarding CAM use). Descriptive statistics were applied to evaluate the patient's demographics. Inferential statistics were used to fine the association between demographics characteristics and CAM ($p<0.05$). **RESULTS:** A total of 500 questionnaires were distributed and 451 were returned (with response rate of 90.2%). Out of 451 patients 148 (32.8%) used CAM for the diabetes treatment, out of which 87 (58.8%) were females and 61 (41.2%) were males. Most of the participants were uneducated 51 (34.5%) and belongs to large families 89 (60.1%). Fifty (33.8%) participants were using mind body intervention, followed by alternative medical system (33.1%) and herbal products (31.8%) respectively for treatment of diabetes. Type of family, monthly income and per month medicine cost were significant associated ($p<0.05$) with CAM use. **CONCLUSIONS:** The current study indicated that diabetes patients used mind body intervention, alternative medical system and herbal products are the most common CAM type used for diabetes control. Further research is recommended to evaluate the diabetes control in patients with CAM used.

PDB21: PURPOSE, BELIEF AND RATE OF DISCLOSURE OF CAM USE AMONG DIABETIC PATIENTS IN QUETTA, PAKISTAN

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OBJECTIVES: The objective of current study is to determine the purpose, belief and perception on CAM use by diabetic patients. This study also highlights the rate of CAM disclosure to physician **METHODS:** A cross-sectional study was undertaken with 148 participants, attending using CAM as mode of treatment in Quetta city, Pakistan. A self-administered questionnaire containing 16 questions was used. five questions were about diabetes, while remaining questions were on information regarding CAM use. Descriptive statistics were applied to evaluate the patient's demographics. **RESULTS:** The total number of CAM users were 148, out of which 87 (58.8%) were females and 61 (41.2%) were males. Most of the participants (n=51, 34.5%) were uneducated and belongs to large families (n=89, 60.1%). Most of participants use CAM to lower their glycemic level, majority (n=125, 84.5%) of which belief that CAM can lower their sugar level. However, only 12% of the participants disclose this CAM use to their physician. **CONCLUSIONS:** The finding of current study indicates that most of diabetic CAM users population belief that CAM can control their glycemic level. However, the rate of CAM disclosure to physician was very low. Efforts should be made to encourage their diabetic CAM user to disclose their CAM use to their physician so he will give them better advise for gycemic control.

PDB22: WILLINGNESS TO PAY FOR IMPROVED CLINICAL OUTCOMES AND REDUCED TREATMENT BURDEN ASSOCIATED WITH INSULIN TREATMENT IN PEOPLE WITH TYPE 2 DIABETES IN SOUTH AMERICA

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OBJECTIVES: The study aims were to investigate patient's preferences in clinical outcomes and patient burden to administer insulin injections, as measured by patients' willingness to pay (WTP). **METHODS:** Existing national email panels in Argentina, Brazil, Chile, Colombia and Mexico were used to collect survey-based data from adults >18 years with type 2 diabetes (T2DM) treated with insulin injections. Results were analysed using a standard choice model designed for discrete choice experiment (DCE). Clinical outcomes related to efficacy (reduction in HbA1c) and safety (severe (SH) and non-severe hypoglycaemic (NSH) events and change in weight) and the patient burden of insulin administration (preparation of insulin prior to injecting and number of daily injections) were found to be relevant factors in qualitative research in patients and were examined in the DCE. **RESULTS:** A total of 1537 people (54% males) with T2DM completed the survey. Participants placed high monetary value on efficacy and safety outcomes; they would pay 74 USD/month to reduce HbA1c by 1% and 80 USD/month to reduce one SH event per year. To reduce one NSH per week participants were willing to pay 91 USD/month. Participants wanting to lose weight reported a WTP of 37 USD/month to lose 3 kg. To avoid preparation of insulin prior to injection, participants reported a WTP of 18 USD/month and the WTP/month for one fewer injection/day was 25 USD. Potential limitations of this study are that preferences expressed may not match preferences in real-life situations, and bias through recruiting via internet panels since these may not be representative of typical patients. **CONCLUSIONS:** Clinical outcomes and administrative burden were significant predictors of choice in people with T2DM. Reducing HbA1c as well as number of SH and NSH were the highest valued outcomes. In addition, the administrative burden of insulin injections was also considered important.

DIABETES/ENDOCRINE DISORDERS - Health Care Use & Policy Studies

PDB23: ASSESSMENT OF PHARMACIST-LED HOME-BASED EDUCATIONAL INTERVENTION AMONG TYPE 2 DIABETES PATIENTS IN THE STATE OF PENANG, MALAYSIA

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OBJECTIVES: Patient education is a key component for the management of acute and chronic conditions. However, majority of such educational sessions are reported from the healthcare settings. The present study therefore, aims to evaluate whether a home-based intervention can result in better understanding about Diabetes Mellitus Type 2 and can increase medication adherence to the prescribed therapies. **METHODS:** A non-clinical randomized control trial was conducted whereby participants received a home-based educational intervention through a registered pharmacist. Diabetes knowledge and medication adherence were measured by means of self-administered questionnaires. Descriptive statistics were used to describe the demographic and disease characteristics of the patients. Inferential statistics were used for inter- and intra- group comparisons. SPSS 18 was used for data analysis. P<0.05 was taken as significant. **RESULTS:** One hundred and fifty patients were randomly assigned to two groups (75 patients in each arm). No significant differences were observed in either group for demographic variables. There was, however, a significant increase in the participants' levels of knowledge about Diabetes Mellitus type 2 and medication adherence among the Home-based intervention group at the completion of the intervention (p<0.001). Significantly lower HbA1c levels were also observed among the Home-based intervention group after completion of the intervention (p<0.001). **CONCLUSIONS:**Pharmacist-led home-based intervention can significantly increase disease-related knowledge and medication adherence in patients with type 2 diabetes mellitus. This study hereby concludes that home-based interventional programs should be utilized as a compelling method of patient education and counselling.

GASTROINTESTINAL DISORDERS - Cost Studies

PGI1: ESTUDIO DE IMPACTO PRESUPUESTAL DE DACLATASVIR ASOCIADO A ASUNAPREVIR DESDE LA PERSPECTIVA DEL SISTEMA DE SALUD PUBLICO CHILENO

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OBJECTIVOS: Evaluar el impacto sobre el presupuesto anual de salud de Chile por la inclusión de Daclatasvir/Asunaprevir (DCV/ASV) para el tratamiento de la Hepatitis C genotipo 1b. **METODOLOGÍAS:** Se modeló la cohorte de pacientes Chilenos con Hepatitis C genotipo 1b utilizando datos de prevalencia e incidencia locales de acuerdo a la metodología sugerida por la guía de buenas prácticas ISPOR. Se comparó el escenario en el que todos los pacientes reciben Peginterferon/Ribavirina (PR) versus el escenario donde todos los pacientes son tratados con DCV/ASV. El análisis fue realizado desde la perspectiva del sistema de salud público Chileno asumiendo 100% de cobertura de los fármacos. Se introdujeron costos asociados al tratamiento farmacológico, de eventos adversos, recursos relevantes (monitoreo mediante exámenes de laboratorio, anatomía patológica, imágenes y controles

médicos) y costos asociados a complicaciones de la enfermedad. Se consideró un horizonte de tiempo de 5 años. **RESULTADOS: :** El impacto sobre el presupuesto anual (tomando como base el de 2015) se presenta para tres precios posibles de DCV/ASV. A CL$1.500.000 pesos chilenos (CL$) semanales se requieren CL$42.928.668.276 adicionales el primer año (tratamiento de casos prevalentes) lo que equivale a un 0.71% del presupuesto anual. Desde el año 2 en adelante (asumiendo tratar sólo casos incidentes) el monto asciende a CL$8.031.019.832 adicionales (0,13% del presupuesto nacional 2015). A CL$1.000.000 semanal, se requieren CL$25.015.902.617 adicionales el primer año y CL$4.679.931.106 adicionales desde el año 2 (0,11% y 0,6% del presupuesto anual de salud 2015). A CL$500.000 semanales se requieren CL$ 7.103.136.957 adicionales el primer año y CL$1.328.842.381 adicionales a partir del segundo año (0,3% y al 0,057% del presupuesto nacional 2015 respectivamente). **CONCLUSIONES:** En los rangos de precios estudiados, el impacto sobre el presupuesto de salud chileno oscila entre el 0,3% y 0,71% para el primer año, el cual disminuiría a menos del 0,15% desde el segundo año.

PGI2: COST ANALYSIS OF CERTOLIZUMAB PEGOL COMPARED WITH AVAILABLE BIOLOGIC AGENTS FOR CROHN'S DISEASE IN MEXICO AND BRAZIL

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Inflammatory bowel disease (IBD) is associated with high costs, high morbidity and decreased quality of life in patients. In Mexico and Brazil, there is no concise data about prevalence of Crohn´s Disease (CD) estimated to range from 0.0008% to 1.11% and no cost data attributable to IBD. **OBJECTIVES:** To assess the average annual cost per patient with CD treated with biologics from the perspective of the government healthcare system both in Mexico and Brazil. **METHODS:** Biologic treatments examined included certolizumab pegol (CZP) 400 mg weeks 0, 2, 4 and then every 4 weeks; adalimumab (ADA) 160 mg week 0, 80 mg week 2 and then 40 mg every 2 weeks; infliximab (INF) 5 mg / kg at weeks 0, 2, 6, and every 8 weeks thereafter. Medication acquisition costs were assessed for CZP and ADA, while costs for INF assessed both acquisition and administration (infusion). Average weight per patient in the analyses was 70kg. Prices were obtained from the Mexican Social Security Institute (IMSS) and ANVISA for Brazil. Exchange rates were obtained from public sources (1USD=0.0675MXN; 1USD= 2.7BRL). **RESULTS:** The analysis for Mexico shows lower costs in the first year of treatment (induction and maintenance) with CZP (USD$7,719/year) vs ADA and INF (USD$12,792, USD$17,313/year, respectively), leading to cost savings per patient/year compared with CZP of approximately USD$5,073 and USD$9,594 versus adalimumab and infliximab. In Brazil, similar results were seen: CZP (USD$7,186/year) versus ADA (USD$24,813/year) and INF (USD$31,004/year), showing savings with CZP of USD$17,627 vs ADA and USD$23,818 vs INF per year. The savings are even greater with CZP in the maintenance years. **CONCLUSIONS:** Certolizumab pegol shows savings when compared to adalimumab and infliximab in the first year of treatment and maintenance, which can lead to an important impact on institutional budgets.

PGI3: TERLIPRESSIN VERSUS NORADRENALINE IN THE TREATMENT OF HEPATORENAL SYNDROME – SYSTEMATIC REVIEW WITH META-ANALYSIS AND FULL ECONOMIC EVALUATION

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OBJECTIVES: Comparing efficacy and costs of treatment strategies using terlipressin or noradrenaline for cirrhotic patients with hepatorenal syndrome, under the perspectives of Brazilian public health system, a major general hospital and a major private health insurance. **METHODS:** Comparison of efficacy was performed through a systematic review with meta-analysis of randomized controlled trials, using random-effects model. Economic evaluation was performed through cost-minimization. **RESULTS:** Four studies (154 patients) were included in the meta-analysis. There was no evidence of difference between treatments with terlipressin or noradrenaline regarding 30-day survival (risk ratio of 1.04, 95% confidence interval of 0.84-1.30, p=0.70). Under the perspective of the public health system, costs of treatments with terlipressin or noradrenaline were 287.77 and 2,960.45 International Dollars (Int$) respectively. Under the perspective of the general hospital, costs of the treatments with terlipressin or noradrenaline were Int$7,437.04 and Int$8,406.41 respectively. Regarding the perspective of the private health insurance, costs of treatments with terlipressin and noradrenaline were Int$13,484.57 and Int$15,061.01 respectively. **CONCLUSIONS:** There was no evidence of superiority between treatment strategies using terlipressin or noradrenaline regarding survival of patients with hepatorenal syndrome, but the strategy using terlipressin was more economical under three different perspectives.

PGI4: RESOURCE USE AND DIRECT COSTS FOR MANAGING HCV GENOTYPE 1 PATIENTS IN COLOMBIA

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OBJECTIVES: To estimate the direct costs of HCV management for genotype 1 patients throughout their lifetime based on the natural history of the disease from payer perspective in Colombia **METHODS:** Direct costs were estimated from a payer perspective by using a micro-costing approach of all relevant resources used to manage patients with HCV genotype 1 since the diagnosis for a lifetime perspective. Resources and clinical practice were identified, measured and valued for nine health states. Resource use and clinical patterns were validated with a panel of experts in managing HCV patients by applying a comprehensive survey. Each of the resources was valued based on standard national public lists of fees in Colombian pesos. Total costs for each of the health states of the disease were calculated for a one year time horizon **RESULTS:** Direct cost were presented in US Dollars using the average year to date exchange rate (USD 1 = COP 1,974). Estimated average direct cost for each health state per year: non diagnostic HCV (USD 512),

chronic HCV F0-F3 (USD 1,440), compensated cirrhosis (USD 976), decompensated cirrhosis (USD 10,782), hepatocellular carcinoma (USD 10,263), liver transplantation (USD 28,883), post-transplant (USD 1,933), monitoring drug therapy for HCV and the management of adverse events (USD 1,020), death (USD 15,538). **CONCLUSIONS:** Chronic HCV infection represents an important economic and humanistic burden for health systems in the world. This micro-costing study provides valuable information for further economic cost of illness analysis from the Colombian payers setting. It also reflects severity and economic impact of HCV related health states.

PGI5: ECONOMIC IMPACT OF EXPANDED USE OF BIOLOGIC THERAPY FOR CROHN'S DISEASE IN LATIN AMERICAN COUNTRIES

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OBJECTIVES: To estimate the impact on costs resulting from expanded biologics use in treating Crohn's disease (CD) in Latin America over 10 years. **METHODS:** The influence of increasing biologics use for CD therapy during 2013–2023 was modeled from a societal perspective. The model incorporated current and projected changes in medical (inpatient and outpatient services), indirect (productivity loss), and drug costs; population size; gross domestic product; and CD prevalence. Costs associated with expanded biologics use (estimated annual rate of increase 7.41%, 21.07%, and 4.97% in Brazil, Colombia, and Mexico, respectively) were compared with non-expanded use (no increase from 2013 levels). The expanded-use scenario incorporated additional drug costs and benefits (medical and indirect cost reduction) attributed to expanded biologics use. Average annual per-patient costs of CD therapy and cost offsets based on biologics use were aggregated with base annual medical and indirect costs to estimate total cost per patient. Total per-country annual costs were estimated using population size and CD prevalence. Costs were adjusted to currency year 2013. Sensitivity analyses of model inputs (CD prevalence and growth of prevalence) assessed model robustness. **RESULTS:**Expanded biologics use was associated with slower annual cost growth vs. non-expanded use; projected per-patient 2023 costs were R$19,689 vs. R$22,235 in Brazil, COP$15.70 million vs. COP$18.66 million in Colombia, and MXN$76,353 vs. MXN$82,170 in Mexico. Differences were driven by greater medical and indirect cost offsets with expanded vs. non-expanded use (e.g., R$4,390 vs. R$2,148 [medical] and R$6,723 vs. R$3,290 [indirect]). Expanded biologics use resulted in 10-year cumulative net cost savings of R$0.08 billion in Brazil, COP$503 billion in Colombia, and MXN$1.8 billion in Mexico. **CONCLUSIONS:** Increasing biologics use to treat CD may limit cost growth over time by reducing medical and indirect costs. These findings may inform policy decisions regarding biologics use for CD in Latin America.

PGI6: CUSTO-EFETIVIDADE DO TENOFOVIR PARA O TRATAMENTO DA HEPATITE B CRÔNICA: UMA REVISÃO SISTEMÁTICA

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OBJETIVOS: O objetivo desse estudo foi realizar uma revisão sistemática sobre custo-efetividade do tenofovir para o tratamento de pacientes com hepatite B crônica. **MÉTODOS:** Foi realizada uma extensiva busca sistemática na literatura por meio das bases de dados Pubmed, Scopus, ScienceDirect, Cochrane, Scielo, HTA e ISPOR, além da busca manual, de artigos publicados até fevereiro de 2015. As estratégias utilizadas foram "cost-effectiveness" OR "cost-utility" AND "hepatitis B treatment" AND "tenofovir". Os estudos incluídos foram referentes a avaliações econômicas do tipo custo-efetividade e custo-utilidade em pacientes adultos e portadores de Hepatite B crônica. A intervenção utilizada foi o uso de tenofovir em comparação às outras alternativas para o tratamento da doença (lamivudina, telbivudina, adefovir, entecavir, interferon alfa e interferon alfa peguilado) e/ou nenhum tratamento. Os desfechos avaliados foram os custos relacionados com as melhorias de saúde (RCEI, AVAQ e AVG). **RESULTADOS:** Ao total, 1185 artigos foram encontrados e apenas 15 atendiam aos critérios de inclusão. O tenofovir foi a estratégia mais custo-efetiva em 2/3 dos artigos selecionados. Nos demais estudos, o fator limitante para o tenofovir ser classificado como a melhor estratégia, foi o seu custo, pois é possível observar que houveram melhorias nos desfechos em saúde avaliados, sendo em alguns casos tão efetivo quanto as alternativas dominantes. **CONCLUSÕES:** Resultados relevantes foram encontrados, sugerindo que o tenefovir é o medicamento mais custo-efetivo para o tratamento da hepatite B crônica e também como terapia de resgate. O seu baixo risco de desenvolvimento de resistência, aliado ao efeito de proporcionar melhorias na saúde em anos de vida ganhos e anos de vida ajustados pela qualidade, além de diminuir as taxas de incidência de cirrose, hepatocarcinoma celular e transplantes hepáticos reforçam esse resultado. Os desfechos demonstrados podem contribuir na tomada de decisão do clínico, na busca pela melhor alternativa para o paciente.

PGI7: ANALYSIS OF COST MINIMIZATION OF ADALIMUMAB COMPARED WITH INFLIXIMAB FOR THE TREATMENT OF ULCERATIVE COLITIS IN THE PUBLIC MARKET IN MEXICO

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OBJECTIVES: Determine whether adalimumab reduces costs for the public health sector in the treatment of moderate to severe active ulcerative colitis in adult patients who have had an inadequate response to conventional therapy in comparison with infliximab. **METHODS:** Adalimumab was considered comparable with infliximab in the treatment of Ulcerative Colitis through a systematic review of the literature. A cost minimization analysis was then considered appropriate under the perspective of the public health care system in Mexico and a time horizon of five years. Direct drug and administration costs were considered. Univariate and multivariate probabilistic sensitivity analyses were performed. Finally, we assessed the budget impact of potential savings. **RESULTS:** The model results showed that the cost with adalimumab treatment for five years (using an annual discount rate of

5%) is $ 96,365.87 (11.2%) lower than the total cost with infliximab. This generates savings to the health system. Results have a high sensitivity to patient weight, but expected costs in all simulated populations are lower with adalimumab. In the base case, the present value of the 5-year budget impact with a discount rate of 5% represents savings around $ 348,748,074.14 pesos if adalimumab is used in 100% of estimated prevalence in Mexico. **CONCLUSIONS:** Adalimumab proved to be an alternative that minimizes expected costs under the investigated scenarios given the evidence of comparable efficacy versus infliximab. Also, savings allow greater access to care for patients with UC, benefiting the health institution, not only by improving the quality of care with an innovative therapy but also by allowing significant savings that could be used to treat a larger number of patients.

GASTROINTESTINAL DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PGI9: ASSESSMENT OF COMPLEMENTARY AND ALTERNATIVE MEDICINE USE IN HEPATITIS-C PATIENTS IN QUETTA, PAKISTAN

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OBJECTIVES: The Study Was Conducted to evaluate the use of complementary and alternative medicine in Hepatitis-C patients In Quetta, Pakistan **METHODS:** A cross sectional study was conducted from March to September, 2014. Hepatitis-C patients having confirm diagnosis visiting different facilities in Quetta city for the treatment of their disease, were included in the study. The data was collected by use of pre-validated tool made specifically for this study. The descriptive statistics was used to present the demographic and disease related information. All analyses were performed using SPSS 20.0. **RESULTS:** A total of 389 patients were registered in different health facilities of the study out of which 284 patients agree to participate in the study. One hundred and seventy two (60.5 %) were using complementary and alternative medicine for the treatment of their disease along with conventional therapy, Herbal treatment was majorly practiced (41.9 %) complementary and alternative method, followed by religious methods (35.0 %). One hundred and thirty two (76.7 %) of these consult a complementary and alternative medicine practitioner. Majority (N=154, 90%) of the respondents were satisfied with the Complementary and Alternative Medicine methods they used for treatment of Hepatitis C.**CONCLUSIONS:** The findings of the study show that the use of Complementary & Alternative Medicine is prevalent in Hepatitis-C patients in Quetta, Pakistan. People satisfied with the use of Complementary & Alternative Medicine methods. Further research is needed to evaluate the reasons and outcomes for Complementary & Alternative Medicine use by patients.

PGI10: A HEPATITE C CRÔNICA DIMINUI A QUALIDADE DE VIDA?

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OBJETIVOS: Verificar se há diferença na qualidade de vida entre pacientes portadores da hepatite C que estão em tratamento (com interferon peguilado mais ribavirina associado ou não a um inibidor de protease) com aqueles que não estão em tratamento. **MÉTODOS:** Estudo observacional, transversal mediante a aplicação de 3 questionários auto-administráveis sendo dois genéricos: Short Form 36 Questionnaire (SF-36) e Euroqol 5D (EQ-5D) e um específico para doenças hepáticas: Chronic Liver Disease Questionnaire (CLDQ). Os questionários foram aplicados em pacientes com hepatite C após a aprovação pelo Comitê de Ética do Hospital de Clínicas da Universidade Federal do Paraná e da Secretaria Municipal de Saúde de Curitiba, Paraná. Os pacientes assinaram o termo de consentimento livre esclarecido (TCLE). Os dados coletados foram tabelados no programa Microsoft Excel 2013 e a análise estatística feita pelo programa Minitab® 17. **RESULTADOS:** Através da prova de Mann-Whitney (IC 95%), obteve-se diferença estatisticamente significante ($p<0,05$) no SF-36 nos domínios aspectos físicos e aspectos emocionais assim como no CLDQ nos domínios: fadiga, sintomas sistêmicos, atividades, função emocional. Não houve tal diferença ($p<0,05$) no EQ-5D, porém o valor utility médio para pacientes em tratamento foi de 0,661 e para os não tratados 0,733 assim como o valor médio da escala analógica visual (VAS) sendo respectivamente 0,57 e 0,73. **CONCLUSÕES:** A administração de questionários genéricos com o suporte de um questionário específico, que é sensível a aspectos peculiares da doença, evidencia que o tratamento tem uma influência negativa na qualidade de vida dos pacientes com hepatite C denotando um maior cuidado no manejo dos mesmos pela equipe de saúde.

INFECTION - Clinical Outcomes Studies

PIN1: MALARIA DIAGNOSIS AND TREATMENT PRACTICE FOLLOWING INTRODUCTION OF RAPID DIAGNOSTIC TEST IN SELECTED HEALTH POSTS OF ADAMA WOREDA, EAST SHEWA ZONE, OROMIA REGION,CENTERAL ETHIOPIA

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OBJECTIVES: To assess malaria diagnosis and treatment practices following introduction of rapid diagnostic test in Adama district health posts, central Ethiopia. **METHODS:** A Cross-sectional study was conducted from January 24 to February 9, 2014 among febrile patients, and caretaking health workers to determine the perceptions and practices related to rapid diagnostic tests (RDTs). Moreover, the treatments prescribed were assessed at the selected Health posts. From the total of 37 health posts in Adama district, 10 health posts were selected by simple random sampling technique. All the patients who visited the health posts during the study period and all

health service providers working in the selected health posts were included in the study. **RESULTS:** The survey was undertaken at ten health posts which use RDT for parasitological confirmation. Twenty health workers and 104 patients were interviewed at health posts. Eighty three patients (79.8%) were seen in health posts with available parasite based diagnostic test (i.e. RDT)) and 21(20.2%) in facilities without RDT. The overall malaria positivity rate was 48(57.8%). Anti–malaria drugs were prescribed to all 48(100%) patients with positive RDT and to 19(54.3%) of RDT negative patients. Among non-tested patients, anti-malaria drugs were given to 12(57.1%), with a higher prescription rate in health posts without RDTs results. Among 104 patients presenting with fever or history of fever, 64(61.5%) were prescribed with antibiotics and anti-pain.**CONCLUSIONS:** Findings from this study show that over prescription with anti-malarial drugs is common in Adama district health posts. The use of rapid malaria diagnostics was also associated with higher prescription of antibiotics among patients with negative test results. The Adama district health office should provide on job and other capacity building trainings for health workers on RDTs, the diagnosis and management of other causes of fever and the importance of adhering to test results.

PIN2: EFFECT OF TRANSFER FACTOR ON THE REDUCTION OF THE NUMBER OF EPISODES OF RECURRENT INFECTIONS IN ADULT AND PEDIATRIC PATIENTS FROM A MULTICENTRE OBSERVATIONAL STUDY

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OBJECTIVES: To assess the effect of human leukocyte transfer factor for parenteral use (TF) in adult and pediatric patients suffering from cellular immunodeficiency (CID) in whom TF had been indicated for treatment of respiratory and/or urinary tract infections, prostatitis and/or vulvovaginitis episodes. **METHODS:** Observational multicenter retrospective study in subjects being treated with TF in the period from September 2012 to April 2013 in Slovakia. The primary objective was to evaluate the effectiveness by assessment of the number of documented infections over one year since the treatment began as compared to the last year of the pre-treatment period. Moreover, the resource use and QoL assessment was conducted using EQ-5D. **RESULTS:** The sample (98 analyzed patients) in 9 centers was predominantly female (75.5%) and the average age was 46.6, with a range of 7 to 82. The most common recurrent episodes were respiratory tract infections occurring 5 (472/96 with infection) times at average in the year before TF initiation (96 patients), followed by urinary tract infections (n=38) and vulvovaginitis episodes. The significant reduction was observed in all three types of recurrent infections after treatment with TF (prostatitis not analyzed). Respiratory tract infections where reduced from 5 to 2 a year after, in contrast to the period before initiation of TF application ($p<0.001$). Significant reduction was achieved in urinary tract infections and vulvovaginitis episodes ($p<0.001$). Reduction was accompanied by a lower resource use, measured by the need of antibiotics and hospitalizations. The median of parenteral TF doses was 8 injections for a full study period (maximum 2 years). **CONCLUSIONS:** The conducted study showed that leukocyte human TF helps to reduce recurrence of episodes of infections in adult and pediatric patient with CID. Besides clinical and resource outcomes, the contribution of this study is the elicitation of utility values for CID of different severity.

PIN3: SYSTEMATIC REVIEW AND META-ANALYSIS OF EFFICACY AND SAFETY OF SIMEPREVIR AND SOFOSBUVIR FOR HCV GENOTYPE 1 INFECTION

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OBJECTIVES: To evaluate the efficacy and safety of the second-wave direct-acting antivirals simeprevir and sofosbuvir in patients with HCV genotype 1 infection through a systematic review and meta-analysis of randomized clinical trials (RCTs). **METHODS:** Electronic searches were performed in databases MEDLINE, International Pharmaceutical Abstracts (IPA), Cochrane Library, SCIELO and Scopus. Statistical analyses were executed using the software Review Manager version 5.3. **RESULTS:** 774 articles were identified, of which 10 RCTs were selected for data extraction and statistical analysis. Simeprevir 100 mg promoted better RVR and SVR24 results than placebo, and simeprevir 150 mg was superior to placebo for the following outcomes: RVR, SVR12, SVR24, SVR12 rates according to METAVIR score for the subgroups F0-F2, F3 and F4, SVR12 rates according to HCV genotype for both genotype 1a and genotype 1b, SVR12 rates for HCV genotype 1a without baseline Q80K and SVR12 according to IL28B genotype for CC, CT and TT. More viral relapse events were observed in the placebo group, for both evaluated doses. There were no significant differences for all of the evaluated safety outcomes between the simeprevir 100 mg and the placebo groups, and for almost all evaluated safety outcomes between the simeprevir 150 mg and placebo groups. Sofosbuvir promoted better RVR, SVR12 and SVR24 than placebo. There was no difference in the safety of sofosbuvir and placebo groups for the majority of evaluated outcomes. **CONCLUSIONS:** Our meta-analysis indicates promising efficacy and a good safety profile of simeprevir for both evaluated doses. Data concerning sofosbuvir reveal the benefits of this drug in hepatitis C virus genotype 1 treatment, also in safety terms.

PIN4: ASSOCIATED FACTORS THE VIROLOGIC SUCCESS IN A GROUP OF PATIENTS WITH HUMAN IMMUNODEFICIENCY VIRUS, MANAGED BY A CARE TEAM INTEGRAL, EPS|SURA MEDELLIN 2010-2013

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INTRODUCTION: the probability of occurrence of virological failure in patients diagnosed with HIV in ARV drug treatment of first and second line is 0.15 and 0.46 respectively, produce the emergence of viral resistance, loss of future schemes, increased hospital admissions, disease progression and death. **OBJECTIVES:** To determine the associated factors that explain the virological success and the time needed to reach it. **METHODS:**Type of study: retrospective cohort survival analysis. Type of patients: belonging to

EPS|SURA regional Medellin, diagnosed with HIV and exposed to first time antiretroviral therapy. Variables: dependents (virologic success and time required to reach it) and independents (sociodemographic, clinical and pharmacotherapeutic). Analysis:frequencies, summary measures, and Kaplan Meier for the univariate stage, chi square, Student's t test or Mann-Whitney U and Log Rank Test for the bivariate phase, proportional hazards model and multiple logistic regression in multivariate phase. **RESULTS:** 97% of patients achieved virologic success, needed 209 days (SD±10.14). Patients had a 95% probability of achieving virological success in the first 8.5 months. Properly use drugs was associated with a shorter time to achieve virologic success HR 2.68 [1.22-5.90] and a greater number of problems with drugs was associated with a longer time HR 0.60 [0.43-0.83]. **CONCLUSIONS:** virological success was higher than the studies found, which was obtained in a short time and was maintained throughout the observation period. The variables in this study were not associated with virologic success but were associated with a shorter time to reach it.

PIN5: UTILIZACION DE ANTIBACTERIANOS DE USO RESTRINGIDO EN PACIENTES ADULTOS HOSPITALIZADOS EN EL HOSPITAL LAS HIGUERAS - TALCAHUANO

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OBJECTIVOS: Estudiar la evolución del consumo de antibacterianos de uso restringido en pacientes adultos hospitalizados durante el periodo 2005 al 2012, en el hospital Las Higueras de Talcahuano.**METODOLOGÍAS:** Se realizó un estudio retrospectivo durante los años 2005 - 2012, del consumo mensual de antibacterianos de uso restringido. Los antibacterianos considerados fueron clasificados según el sistema ATC/DDD. Se incluyo vancomicina, carbapenémicos (imipenem, ertapenem y meropenem) y cefalosporinas de tercera generación (ceftriaxona, ceftazidima y cefotaxima). Se determinó la densidad de consumo expresado en porcentaje y en términos del número de DDD/100 días-cama-ocupados. La evolución del consumo se determinó calculando diferencia porcentual entre los año 2005 y 2012. La comparación de los consumos se realizó con la prueba t-test. Se consideró diferencias significativas con un nivel de significancia de p<0.05. **RESULTADOS:** Ceftriaxona fue el antibacteriano con mayor consumo total (63%) (292,4 DDD/100 días-cama-ocupados) seguido por vancomicina (17%) (77,13 DDD/100 días-cama-ocupados). Por su parte, el servicio de paciente crítico y de cirugía mostraron el mayor consumo de antibióticos, con un total de 150 DDD/100 días-cama-ocupados (54%) y 54 DDD/100 días-cama-ocupados (20%) respectivamente. En relación a la evolución del consumo, se observó un incremento significativo en el consumo de vancomicina (+67%; p<0,05), imipenem (+62%; p=0.004), meropenem (+84%; p=0.006) y ceftriaxona (+44%; p=<0.05). **CONCLUSIONES:** El consumo de todos los antibióticos estudiados aumento significativamente, especialmente ceftriaxona, vancomicina y carbapenémicos. La consecuencia de este consumo pudiera significar un aumento de la resistencia bacteriana intrahospitalaria y los costos asociados en la atención de salud, por lo que se sugiere su estudio.

PIN6: DOES USE OF CALCIUM CHANNEL BLOCKERS AFFECT THE RISK OF INCIDENT ACTIVE TUBERCULOSIS DISEASE? A NESTED CASE CONTROL STUDY ON A NATIONAL HEALTH CLAIM DATABASE

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BACKGROUND: It is World Health Organization's Global Plan to eradicate Tuberculosis (TB) disease by the year of 2050, but it is difficult to achieve that goal by the current rate of infection decrease. Our goal is to evaluate whether calcium channel blocker, an existing cardiovascular drug can affect the onset of active TB. **OBJECTIVES:** To evaluate whether the use of different classes of calcium channel blockers (CCBs) affect the risk of incident active tuberculosis disease. **METHODS:** A nested case control study was carried out using the claims data from National Health Insurance Research Database of Taiwan between January 1997 and December 2011. Index date referred to the first date of TB diagnosis. Patients with CCBs exposure were defined by receiving ≧ 7 days of prescription ending in 3 different time frames. Current use refers to prescription that ended within 30 days of the index date. Multivariate regression and a disease risk score (DRS) technique were used to calculate risk of active TB disease. **RESULTS:** From a cohort of one million patients with 13 years follow-up, 7164 cases of new active TB and 716,400 controls were identified. Use of dihydropyridine class of CCBs, but not phenylalkylamine and benzothiazepine CCBs were associated with lower risk of active TB. Current use of dihydropyridine was associated with lower risk of active TB before (0.75 ; 95%CI, 0.69 – 0.82) and after DRS adjustment (0.70 ; 95%CI, 0.64 – 0.77). Dose response analysis suggested that longer term use of dihydropyridine can lead to even lower risk of active TB. **CONCLUSIONS:** Our novel results suggest that use of dihydropyridine class of CCBs decrease the risk of active TB. However, more studies are required to validate our results before recommending CCBs to cardiovascular patients at high risk of TB.

PIN7: TREATMENT OUTCOMES AMONG HIV/AIDS PATIENTS TREATED DURING HAART THERAPY AT INFECTIOUS DISEASE CLINIC

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OBJECTIVES: Current study is aimed to explore and to observe clinical treatment outcomes during HAART therapy among HIV/AIDS patients **METHODS:** An observational retrospective study of all patients diagnosed of HIV infection and on HAART therapy from Jan 2007 to Dec 2012 was conducted at infectious disease department of Hospital Pulau Pinang, Malaysia. Patient socio-demographic details along with clinical features were recorded. Data was descriptively analyzed by using statistical package for social sciences

(SPSS 20) **RESULTS:** Out of 792 patients that underwent HAART therapy, 607 (76.6%) were male and 185 (23.3%) were female patients. The treatment outcome of the total study population (792) on the basis of recovery of CD4 cells count to the normal range was (≥350 cells/mm3). Out of total patients (792), 645 (81.4%) patients improved their CD4 cells count under the treatment of HAART therapy out of which 488 (61.6%) male and 157 (19.8%) female patients were improved to a normal range of CD4 cells count. On binary logistic regression both Malay (OR 2.32, p <0.001) and Chinese patients (OR 0.37, p <0.001) were found to be statistically significant. Patients having age less than 30 years (OR 0.58, p 0.09), with secondary education level (OR 0.44, p 0.001), and Graduate patients (OR 0.50, p 0.09) were also have a signification association with treatment outcomes. Non-smokers (OR 2.16, p 0.001), non-alcoholic (OR 1.42, p 0.05) and non-drug abusers were also found to be statistically significant **CONCLUSIONS:** The study indicates the clinical treatment outcomes in non-smokers, non-alcoholics and non-drug abusers HIV patients were higher. Also indicate a significant treatment outcomes on educated patients which may be due to the awareness about the infection. However, a multicenter study with a large sample size may provide us with better understanding of this relationship

INFECTION - Cost Studies

PIN8: ANALISIS DE IMPACTO PRESUPUESTAL DEL USO DE DACLATASVIR+ASUNAPREVIR EN EL TRATAMIENTO DE PACIENTES CON HEPATITIS C EN COLOMBIA

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OBJECTIVOS: Estimar el impacto per cápita año a año de la utilización de daclatasvir+asunaprevir en pacientes con hepatitis C, frente tratamientos convencionales, en el sistema de salud Colombiano.**METODOLOGÍAS:** A partir de un modelo de costo-utilidad que demuestra la dominancia de daclatasvir+asunaprevir(D/A) en el tratamiento de pacientes con hepatitis C, sobre peginterferon alfa+ribavirina, más telaprevir o boceprevir, se realizó un análisis de impacto presupuestal para un quinquenio, considerando costos directos en salud, desde la perspectiva de un tercer pagador. Los costos de servicios fueron extraídos de bases de datos de aseguradores colombianos, las frecuencias de uso fueron calculadas mediante opinión de expertos. Los costos de medicamentos, se estimaron con base en el Sistema de Información de Precios de Medicamentos de Colombia. Se analizaron dos escenarios, en el actual el 100% de los pacientes son tratados con telaprevir+A/R o boceprevir+A/R; mientras en el escenario nuevo se trabaja con tasas de reemplazo del 30% y 50% de uso de D/A. **RESULTADOS:** Dado un estimado de 1.500 pacientes que pueden ser objeto de la tecnología, el impacto presupuestal a tasas de reemplazo del tratamiento actual del 30 y 50% por (D/A) para el primer año, sería de $3.300.602.149 y $5.501.003.583, respectivamente. No obstante, a partir del segundo año y hasta el quinto año la inclusión de D/A, genera un ahorro acumulado de $925.729.468 y $1.542.882.448, bajo tasas del 30 y 50% de reemplazo respectivamente. De esta manera, el impacto per cápita acumulado al quinto año es de $49,48 y $82,46 pesos, bajo tasas del 30 y 50% de reemplazo**CONCLUSIONES:** A partir del segundo año de la inclusión de D/A se comienzan a generar ahorros por la tecnología, alcanzando al quinto año un gasto per cápita no mayor de $49,48 y $82,46 dependiendo del porcentaje de pacientes que se tengan en el medicamento.

PIN9: INCREASED USAGE OF CALCIUM FREE BALANCED SOLUTIONS (BAL) IN LIEU OF 0,9% SALINE IN PATIENTS MEETING SIRS (SYSTEMIC INFLAMMATORY RESPONSE SYNDROME) CRITERIA: A PRIVATE BRAZILIAN HOSPITAL PERSPECTIVE

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OBJECTIVES: The study aimed to assess the economic implications of increasing usage of calcium free balanced solutions (BAL) for IV fluid therapy on costs of fluids and avoidance of fluid-related adverse outcomes in SIRS patients from a Brazilian hospital perspective. **METHODS:** An Excel®-based budget impact model (BIM) was developed to assess the impact of increased usage of BAL fluids in SIRS patients versus 0,9% saline on the costs of IV fluids and costs associated with fluid-related complications. The target population was adult patients (age ≥18 years) meeting SIRS criteria and receiving solely crystalloid IV fluids. The interventions compared were: patients mainly receiving BAL fluid mix versus patients receiving IV fluid therapy without BAL fluid mix considering an increasing adoption rate over 5-year period. **RESULTS:** The base case was defined as a 300-bed hospital with 90% occupancy, a 2.7% SIRS frequency among inpatients, current BAL adoption level of 2%, projected year 5 BAL adoption levels of 20%. The patient number per month requiring fluid resuscitation calculated was 47 (564 per year). The overall savings were calculated by subtracting the costs of complications and treatments associated with BAL adoption level for a given year from costs associated with current BAL adoption level and adding the incremental costs. The 72-hour fluid cost increased from R$ 1.480 (year 1) to R$ 3.552 (year 5). The cumulative hospital savings versus current usage were estimated to be R$ 98.737 by year 1 and ~R$ 1.6 M by year 5. At the pharmacy level estimated total cumulative savings were R$ 11.577 in the first year and R$ 194.866 over the 5 year period. **CONCLUSIONS:** Despite the incremental cost on fluid therapy, increased usage of BAL in SIRS patients versus current BAL usage was demonstrated to be a cost saving strategy for the hospital and consequently for the healthcare system.

PIN10: ESTIMACI"N DE COSTOS DIRECTOS ASOCIADOS AL CAMBIO DE TERAPIA IV A ORAL EN INFECCI"N COMPLICADA DE PIEL Y TEJIDOS BLANDOS EN CHILE

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OBJECTIVOS: La incidencia infecciones de piel y tejidos blandos producidas por S. aureus meticilino resistente (SARM) ha aumentado en los últimos años, para su tratamiento se recomienda el uso de antibióticos de amplio espectro con cobertura de SARM como linezolid y vancomicina. El objetivo de este estudio es determinar el costo asociado al uso de vancomicina IV monoterapia vs cambio temprano a linezolid oral en el tratamiento de infecciones de piel y tejidos blandos en instituciones de salud privadas en Chile **METODOLOGÍAS:** Se realizó un modelo de estimación de costos para determinar el diferencial al realizar el cambio de terapia IV a oral por persona. Los comparadores incluidos fueron vancomicina (1gr c/12hr) y linezolid oral (600 mg BID) La perspectiva del análisis fue la de las instituciones Privadas de Salud (ISAPREs) en Chile. Los costos directos incluidos corresponden a los medicamentos en comparación y a la estancia hospitalaria durante la administración del medicamento IV; fueron obtenidos de aranceles oficiales para la estancia hospitalaria y del reporte del canal privado para los medicamentos. El horizonte de tiempo del análisis fue 14 días . **RESULTADOS:** Los costos directos asociados a vancomicina IV (monoterapia) durante 14 días fueron $2.765.000 por paciente, al realizar el cambio de vancomicina IV a linezolid oral los costos variaron entre $2.643.500 y $1.428.500 al realizar el cambio entre el día 13 al día 3, respectivamente. Al realizar el cambio de terapia IV a oral, se liberaría la disponibilidad de días-cama en las instituciones (costo de oportunidad) **CONCLUSIONES:** Al realizar el cambio de vancomicina IV a linezolid oral se generaría un ahorro de 4% a 48% en comparación con la monoterapia de vancomicina, el costo de oportunidad por tener los pacientes con medicación IV son los días-cama que se pueden liberar al realizar el cambio temprano de vía de administración IV a oral.

PIN11: COSTO DE ENFERMEDADES METAXENICAS EN LOS ESTABLECIMIENTOS DE SALUD DEL PERÚ

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OBJECTIVOS: Estimar los costos de las Enfermedades Metaxénicas (EMTX) en los establecimientos del Ministerio de Salud del Perú. **METODOLOGÍAS:** Se realizó una evaluación económica parcial de tipo costo de enfermedad (CE). La población de estudio fue una cohorte hipotética de pacientes con EMTX afiliada al Seguro Público de Salud (Seguro Integral de Salud). Los costos se estimaron desde la perspectiva del financiador tomados para el año 2014. La definición de los esquemas de manejo clínico (procedimientos médicos y medicamentos para prevención, diagnóstico, tratamiento y seguimiento de la enfermedad) provienen de las Condiciones Asegurables del Plan Esencial de Aseguramiento en Salud (PEAS). Cada esquema de manejo clínico se ha estimado con la metodología de costeo estándar. El costo total fue ajustado por factores de oferta, demanda y adherencia. **RESULTADOS:** La cohorte hipotética de EMTX es de 396,592 personas para el año 2014, de las cuales 5,434 corresponden a Dengue; 575 a Bartonelosis; 34,371 a Fiebre Amarilla; 91,982 a Tripanosomiasis; 11,131 a Leishmaniosis; y 253,099 a Malaria; (Incidencia de Dengue: 0.05%, Incidencia de Bartonelosis: 0.03%, Incidencia de Fiebre Amarilla: 0.0004%, Incidencia de Tripanosomiasis: 0.85%, Incidencia de Leishmaniosis: 0.04%, Incidencia de Malaria vivax: 0.23%, incidencia de malaria falciparum: 0.01%). El costo total para EMTX es de 6,309,054 dólares correspondiendo para Dengue 320,535 dólares, Bartonelosis 193,488 dólares, Fiebre Amarilla 296,326 dólares, Tripanosomiasis 3,142,325 dólares, Leishmaniosis 68,285 dólares y para Malaria es de 2,288,096 dólares. El costo total correspondiente a prevención es 2,121,011 dólares (33.6%), diagnóstico 1,195,563 dólares (18.9%), tratamiento 1,297,189 dólares (20.6%) y para seguimiento 1,695,292 dólares (26.9%). El costo fijo correspondió a 3,387,381 dólares (53.7%) y el costo variable a 2,921,693 dólares (46.3%). **CONCLUSIONES:** El costo anual total para Enfermedades Metaxénicas se estimó en 6,309,054 dólares. Este monto representa el 5.8% del presupuesto anual 2014 del Programa Presupuestal Enfermedades Metaxénicas y Zoonosis.

PIN12: COSTOS ECONÓMICOS DE LA OTITIS MEDIA AGUDA. UNA REVISIÓN DE LA LITERATURA

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OBJECTIVOS: Describir los costos económicos de la Otitis Media Aguda mediante una revisión sistemática de la literatura. **METODOLOGÍAS:** Se realizó la búsqueda de los estudios en las bases de datos de PubMed, NHS-EED y Embase. Se seleccionaron evaluaciones económicas parciales (estudios de costos directos e indirectos) que costearan OMA en pacientes ambulatorios u hospitalarios de cualquier edad. Se recolectaron los promedios y/o medianas de los costos por paciente y se convirtieron a dólares internacionales (PPA de 2012). Los costos se agruparon en rangos (mínimos y máximos) para su análisis. **RESULTADOS:** En total se encontraron 1.033 estudios no duplicados. Se revisaron los textos completos de 268. 17 fueron seleccionados de acuerdo a los criterios de inclusión. 15 (88%) fueron realizados en países de ingreso alto, donde el costo directo medio mínimo se presentó en Holanda (I$ 84) y el máximo en Hong Kong (I$ 7014). En países de ingreso medio alto (Brasil) el costo medio fue de I$ 47 y en países de ingreso bajo (Nigeria) osciló entre I$ 140 - I$ 1.260. Los gastos de bolsillo sólo se reportaron en países de alto ingreso, donde el costo medio mínimo fue de I$ 3 (Holanda) y el máximo I$ 67 (Estados Unidos). Los costos indirectos reportados variaron entre I$ 52 (Corea del Sur) y $ 2.635 (Hong Kong) en países de alto ingreso. Los costos totales variaron entre I$ 145 (Canadá) y $ 3.700 (Corea del Sur) en países de alto ingreso y entre I$ 29 y I$41 en países de bajo ingreso (Nigeria). **CONCLUSIONES:** Se encontró gran variabilidad de costos en los estudios incluidos. Los costos en los estudios de los países desarrollados fueron más altos que en los países con menor nivel de desarrollo. Se destaca la insuficiencia de estudios de costos económicos de OMA en países de bajo ingreso.

PIN13: COSTOS DE INFECCIÓN RESPIRATORIA AGUDA GRAVE ASOCIADA AL VIRUS DE LA INFLUENZA EN COLOMBIA

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OBJECTIVOS: Estimar costos económicos asociados a atención de pacientes hospitalizados por IRAG asociada a influenza en hospitales de Colombia **METODOLOGÍAS:** Estudio realizado en 2014 en dos hospitales de alta complejidad, centros centinela para influenza en Colombia. Se recolectó información a través de revisión de expedientes clínicos y de entrevista personal a los participantes y/o sus padres o cuidadores responsables, en caso de los niños. Para la estimación de los costos indirectos se hizo seguimiento de los pacientes, mediante llamadas telefónicas, hasta una semana después del alta hospitalaria. Se realizó estadística descriptiva. Se estimaron los costos directos e indirectos promedios y medianos. Se estimaron los costos totales de la enfermedad. **RESULTADOS:** Se incluyeron 44 casos pediátricos, 9 embarazadas y 26 de adultos mayores de 65 años. 75,6% de los infantes y 50% de los adultos mayores fueron hombres. Solo hubo muertes en adultos mayores (7 muertes, letalidad del 26,92%). El 9% de los casos de IRAG pediátrico fueron confirmados para influenza tipo AH1N1, el 68% para influenza tipo B y el restante 23% coinfectado influenza A y B. Las embarazadas y adultos mayores no se reportaron ningún caso confirmado para influenza. La edad media fue de 8 meses para pacientes pediátricos, 23 años y 81 años para embarazadas y adultos mayores. La estancia media fue de 8,9 días (IC95% 6,27 – 11,55), 5,11 (IC95% 2,32 – 7,89) y 8,7 días (IC 95% 4,70 – 12,61) para pacientes pediátricos, embarazadas y adulto mayor. El costo económico por caso atendido con IRAG en Colombia tiene una media de 5.147.799 pesos para los pacientes pediátricos, 6.429.165 pesos para embarazadas y de 14.803.340 pesos para adultos mayores. **CONCLUSIONES:** El costo de IRAG asociada a influenza discriminando por hospitalización en sala general y UCI, es similar en niños y embarazadas y mucho mas alta en adultos mayores.

PIN14: COSTOS DE HOSPITALIZACIÓN POR INFECCIÓN RESPIRATORIA AGUDA GRAVE (IRAG) EN GUATEMALA

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OBJECTIVOS: Estimar, desde la perspectiva hospitalaria, costos de atención de la Infección Respiratoria Aguda Grave en niños y adultos en Guatemala **METODOLOGÍAS:** Como parte de un estudio multicéntrico, se estimaron costos de tratamiento de pacientes hospitalizados a partir del micro costeo retrospectivo de una muestra aleatoria de casos ocurridos durante el periodo 2009-2011 y atendidos en el Hospital San Juan de Dios de Guatemala que es un Hospital-escuela de alta complejidad. Se calculó una muestra aleatoria de pacientes con diagnósticos de IRAG (CIE-10), según parámetros extraídos de la literatura. En ésta, se estimó el costo promedio por paciente tanto en niños como en adultos mayores. Los costos fueron expresados en moneda local y dólares internacionales de 2005 para efectos de comparación internacional **RESULTADOS:** El costo del DCO se estimó en I$ 148.72 para hospitalización general pediátrica, I$ 57. 62 hospitalización general adultos, I$ 581.45 UCI pediátrica y I$ 474.30 UCI en adultos. Siendo muy similar a las estimaciones a partir de WHO-CHOICE. Los costos medios de casos tanto en niños como en adultos son inferiores a los obtenidos en otros estudios en paises de América Latina y el Caribe con similar ingreso per cápita. **CONCLUSIONES:** El microcosteo de los casos incluidos de IRAG permitió estimar un valor medio por caso tratado, con sus respectivos intervalos de confianza y podría tener validez para el total de la población atendida por estos diagnósticos en el HSJD y en hospitales con similar perfil epidemiológico y similar nivel de complejidad de Guatemala.

PIN15: MEASUREMENT OF THE BURDEN, RESOURCES USE AND HEALTH COSTS ASSOCIATED WITH HERPES ZOSTER AND POST-HERPETIC NEURALGIA IN MEXICO. MASTER STUDY

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OBJECTIVES: Understand the burden of disease, resources utilization, and health costs associated to herpes zoster in Mexican population. **METHODS:** Canadian MASTER protocol methodology was adapted to perform this prospective cohort, multicenter trial in patients over 50 years who presented herpes zoster outbreaks or pain associated to zoster. Data was obtained through patient questionnaires at day 0, 14, 21, 30, 60, 90, 120, 150 and 180. Burden of disease was evaluated as a function of pain duration and severity measured with the Zoster Brief Pain Inventory and the Initial Zoster Impact questionnaire. Quality of Life was evaluated before and after a zoster rash with the EuroQol-5D. A simple questionnaire describing the health resources utilization was used as well as productivity and work questionnaires. Descriptive statistics for all variables were used and for continuous variables, mean, median, standard deviation, rank and confidence intervals were calculated **RESULTS:** 131 patients were enrolled. Mean age was 63.5 ± 10.4 years. At the time of recruitment, 93 patients (71.0%) had papule-vesicles. Mean duration of evolution was 23.9 ± 19.9 days. Median value of EQ VAS initially decreased to 63.8 during visit 1; nevertheless, it increased progressively to >80 on visit 4 (21 days). The most important effects of post-herpetic pain on QoL occurred in daily activities, pain/discomfort, and anxiety/depression. Health resources were used mainly on the first visit. Health resources use consisted of medical consultation, chiropractic/physical therapy, psychiatry/psychology consultation, and specialists consultation. Nearly 50% of the patients needed support during the first visit and spent $1,045 MX (US $80.64) and $296,00 MX (US $22.84) on medication and alternative medicine, respectively. **CONCLUSIONS:** HZ is associated with impaired QoL, and significant health care resources use, supporting the need for early intervention and preventive strategies to reduce the HZ-associated disease burden to the health care system and the patient.

PIN16: ANÁLISIS DE COSTO-EFECTIVIDAD DE ANIDULAFUNGINA EN EL TRATAMIENTO DE LA CANDIDIASIS INVASIVA EN COLOMBIA

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OBJECTIVOS: Estimar la costo-efectividad de anidulafungina en el tratamiento de la candidiasis invasiva en Colombia. **METODOLOGÍAS:** Se construyó un árbol de decisión para determinar la razón de costo-efectividad incremental (ICER, por su sigla en inglés) de anidulafungina IV (200 mg en el primer día y 100 mg como dosis de mantenimiento) comparado con: anfotericina B deoxicolato IV (0,7-1,0 mg/kg al día); anfotericina B liposomal IV (5 mg/kg al día); caspofungina IV (70 mg en el primer día y 50 mg como dosis de mantenimiento) y fluconazol IV (100 mg al día) en el tratamiento de la candidiasis invasiva. La perspectiva fue la del sistema de salud. Se incluyeron solo costos médicos directos, expresados en dólares (1 USD$ = COP 1.971). El horizonte temporal fue la esperanza de vida. Se utilizó una tasa de descuento de 5%. Los resultados se midieron en años de vida ajustados por calidad (AVAC). Los datos de eficacia, seguridad y utilidad se tomaron de la literatura. Se realizaron comparaciones indirectas usando un método bayesiano. Los precios de los medicamentos se tomaron de la base de datos oficial (SISMED) y de la regulación de precios vigente. Se realizaron análisis de sensibilidad univariados y probabilísticos. **RESULTADOS:** Los costos totales esperados por paciente fueron: anidulafungina USD$ 4,685.61; anfotericina B deoxicolato USD$ 928.22; anfotericina B liposomal USD$ 25,569.12; caspofungina USD$ 3,368.48 y fluconazol USD$ 628.39. Los resultados para cada alternativa en términos de AVAC fueron: anidulafungina 3,08; anfotericina B deoxicolato 2,26; anfotericina B liposomal 1,90; caspofungina 2,14 y fluconazol 2,46. El ICER por AVAC de anidulafungina comparado con fluconazol fue USD$ 6,521.38. Anfotericina B deoxicolato, anfotericina B liposomal y caspofungina fueron alternativas dominadas. **CONCLUSIONES:** Asumiendo como umbral para Colombia el PIB per cápita (USD$ 7,609.42) por AVAC, anidulafungina es una alternativa costo-efectiva para el tratamiento de la candidiasis invasiva.

PIN17: ANÁLISIS DE COSTO-EFECTIVIDAD DE LAS VACUNA ANTINEUMOCÓCCICAS CONJUGADAS EN COLOMBIA

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OBJECTIVOS: Las diferentes vacunas conjugadas antineumocóccicas han demostrado reducir la carga de enfermedad asociada a Streptococcus pneumoniae. El objetivo de este trabajo es estimar la costo-efectividad de las vacunas conjugadas antineumocóccicas PCV13 y PCV10 en Colombia. **METODOLOGÍAS:** Se construyó un modelo de Markov, para simular los resultados en salud de un programa de vacunación en una cohorte hipotética de 676.835 niños. Se empleó el esquema de vacunación 2+1 para PCV13 y PCV10. Con base en los hallazgos de eficacia, efectividad y efecto rebaño de la revisión sistemática, se construyeron diferentes escenarios de costo-efectividad para cada vacuna frente a no vacunar y vacunar con PCV13 comparada con PCV10 La perspectiva fue la del sistema de salud. El horizonte temporal fue la esperanza de vida (75 años). Se incluyeron costos médicos directos que se expresaron en dólares (USD). Se aplicó una tasa de descuento de 3% para costos y resultados en salud. Los resultados se expresaron en número de casos (otitis media aguda, neumonía y enfermedad invasiva), muertes evitadas y años de vida ganados (AVG). Se realizaron análisis de sensibilidad univariados y probabilísticos. **RESULTADOS:** La inversión del programa de vacunación en millones de dólares fue: PCV13 (USD 31.513.438) y PCV10 (USD 28.379.692). De acuerdo a los parámetros de eficacia, efectividad y efecto rebaño considerados, PCV13 evitaría en niños entre 848 y 564 muertes en el escenario más y menos optimista, respectivamente. Del mismo modo, PCV10 evitarían entre 498 y 403 muertes. **CONCLUSIONES:** PCV13 y PCV10 son estrategias costo-ahorradoras frente a no vacunar .PCV10 fue dominada frente a PCV-13 en los escenarios más optimistas de ambas vacunas. La razón de costo-efectividad incremental fue USD$ 1.863 /AVG para PCV-13 comparada con PCV10 en los escenarios menos optimistas de ambas vacunas.

PIN18: EVALUACION DE COSTO EFECTIVIDAD DE DOLUTEGRAVIR (DTG) VS RALTEGRAVIR (RAL) EN SEGUNDA LINEA DE TRATAMIENTO EN PACIENTES ADULTOS CON VIH EN COLOMBIA

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OBJECTIVOS: Evaluar la costo-efectividad de Dolutegravir(DTG) frente a Raltegravir(RAL), en segunda línea de tratamiento antirretroviral para la población Colombiana con VIH mayor a 18 años y vírgenes a Inhibidores de Integrasa(INI). **METODOLOGÍAS:** Se utilizó la técnica de Simulación de Montecarlo en un modelo de Markov que describe la evolución clínica de pacientes con VIH en 12 estados de salud, 6 de ellos relacionados con VIH directamente (VIH crónico con/sin infección oportunista) y los otros asociados al desarrollo o no de una enfermedad cardiovascular, ECV. El modelo se utilizó anteriormente en Canadá y se adaptó con información epidemiológica y de costos para Colombia. La perspectiva es la del tercer pagador para toda la esperanza de vida con tasa de descuento de 5% en costos y resultados. Se exploró la influencia de la incertidumbre mediante la curva de aceptabilidad por bootstrapping-no-paramétrico de 1,000 replicaciones y análisis de sensibilidad de una sola vía en los parámetros de interés. Se empleó la Cohorte del estudio clínico SAILING (n=710). **RESULTADOS:** Los costos totales para los pacientes tratados con DTG fueron USD$157,996.65 y USD$158,722.92 con RAL. Los costos incrementales estimados fueron -USD$726.28 y la ganancia incremental en años de vida ajustados por calidad, AVAC's, fue de 0.277 AVAC's (3.32 meses). El RICE calculado fue -USD$/AVAC 2,625.22(<1 PIBper-cápita colombiano). La curva de aceptabilidad muestra bajo nivel de incertidumbre, toda la densidad estimada involucra ahorro en costos y ganancias en salud. El modelo es sensible a reducciones en la tasa de descuento de costos y resultados, con tasa de 0%, el RICE se ubica entre 1 y 3 PIB per cápita, es decir DTG pasa a ser

potencialmente costo efectiva. Modificaciones en utilidades, costos de ECV, muerte, backbone u horizonte temporal no modifica lo resultados base. **CONCLUSIONES:** DTG es costo efectivo frente a RAL con un nivel bajo de incertidumbre.

PIN19: ANALISIS DE COSTO EFECTIVIDAD Y COSTO UTILIDAD DEL USO DE DACLATASVIR+ASUNAPREVIR EN EL TRATAMIENTO DE PACIENTES CON HEPATITIS C EN COLOMBIA, DESDE LA PERSPECTIVA DEL TERCER PAGADOR

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OBJECTIVOS: Analizar la relación de costo efectividad del uso de daclatasvir+asunaprevir frente a peginterferón alfa+Ribaivirina más telaprevir o boceprevir para el tratamiento de hepatitis C en Colombia**METODOLOGÍAS:** Modelo de Markov, tipo costo-efectividad desde la perspectiva del tercer pagador, en un horizonte temporal hasta la muerte, bajo ciclos anuales, con una cohorte hipotética de 100 pacientes con edad media de 50-57 años. Se simula la historia natural de la enfermedad y sus complicaciones, pasando de estados de cirrosis compensada, descompensada, carcinoma hepatocelular, trasplante hepático y muerte por la enfermedad o por cualquier causa. Las probabilidades de transición fueron extraídas de un meta-análisis que reúne la mejor evidencia disponible. Como desenlaces se evaluaron los años de vida, años de vida ajustados por calidad y costos totales. Los costos de servicios fueron extraídos de bases de datos de aseguradores colombianos, mientras que los de medicamentos fueron estimados con fuente de "Sistema de Información de Precios de Medicamentos". Además, se utilizó una tasa de descuento del 5% para costos y resultados. También, se realizó un análisis de sensibilidad tipo Montecarlo con 1000 iteraciones.**RESULTADOS:** Los años de vida ajustados por calidad (QALY) de un paciente tratado con la tecnología de intervención es de 11,62, mientras que con telaprevir, boceprevir y sin tratamiento es de 11,04, 10,93 y 8,93, respectivamente. Por otra parte, el costo total de un paciente tratado con daclatasvir+asunaprevir es de $94.028.337 y los tratados con telaprevir, boceprevir y sin tratamiento son de $99.291.810, $94.786.296 y $56.950.196. **CONCLUSIONES:** daclastasvir+asunaprevir, desde la perspectiva del tercer pagador, es una tecnología dominante sobre telaprevir y boceprevir, y costo-efectiva frente al no tratamiento, con una razón de costo efectividad incremental de $13.758.604 pesos por QALY, la cual se encuentra por debajo del umbral de tres PIB per cápita para Colombia

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PIN20: ECONOMIC, PUBLIC HEALTH, AND HUMANISTIC IMPACT OF A QUADRIVALENT HUMAN PAPILLOMAVIRUS (HPV6/11/16/18) VACCINATION PROGRAM FOR FEMALES AGE 9-11 YEARS IN MEXICO

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OBJECTIVES: To compare the economic, public health, and humanistic impact of a quadrivalent (HPV6/11/16/18) vaccination program in a two-dose scheme for 9-11 year old females with a bivalent (HPV 16/18) vaccination program in Mexico **METHODS:** A previously developed transmission dynamic mathematical model was adapted to evaluate the impact of routine vaccination of 9-11 year old females in Mexico. The model compared baseline coverage of 70% for two doses of the quadrivalent vaccine versus bivalent vaccine. Mexico specific data was used from literature where available; default values were used otherwise. Input data included demographic, behavioral, epidemiological and screening parameters, and direct treatment costs of HPV-related morbidities from a public health perspective. **RESULTS:** In a 100-year period, as compared to a two dose 70% bivalent vaccination program, a 70% quadrivalent vaccination program coverage would result in reductions of HPV 6/11-related disease incidence at the population level as follows: genital warts in females (83%), genital warts in males (81.4%) and HPV6/11-related CIN1 (82%) . This would translate into a reduction of HPV 6/11-related disease cost of 59.1%, 56.3%, and 55.7% for genital warts among females, genital warts among males, and HPV6/11-related CIN1, respectively. Under the model assumptions, over a 100 year period, the total HPV6/11/16/18- related disease costs avoided would be over $1.7 billion Mexican Pesos. Thesincremental cumulative QALYs gained per 100,000 by HPV 6/11/16/18-related disease over 100 years would be 30.31 when compared with an HPV16/18 vaccination program. **CONCLUSIONS:** In Mexico, routine vaccination of 9-11 year old females with a quadrivalent HPV6/11/16/18 vaccine has incremental economic, public health, and humanistic impact as compared to a bivalent HPV 16/18 vaccine.

PIN21: ASSESSING THE PUBLIC HEALTH IMPACT AND COST EFFECTIVENESS OF PNEUMOCOCCAL VACCINES FOR ADULTS 65 YEARS OF AGE IN COLOMBIA

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OBJECTIVES: Recently published efficacy data for 13-valent pneumococcal conjugate vaccine (PCV13) and 23-valent pneumococcal polysaccharide vaccine (PPSV23) provides an opportunity to update prior economic evaluations of pneumococcal vaccination in Colombia. This study aims to examine the public health impact and cost-effectiveness of PPSV23 versus PCV13 to prevent adult pneumococcal diseases in Colombia.**METHODS:** We applied an economic model that incorporated costs, health outcomes, and quality-adjusted life-year losses associated with invasive pneumococcal disease (IPD) and non-bacteremic pneumococcal pneumonia (NBPP) in a cohort of 65-year-old adults in Colombia. From the payers perspective, we evaluated the public health impact and cost-effectiveness of three strategies: no vaccination, PPSV23, PCV13. Vaccine effectiveness was based on recently published efficacy data and vaccine costs were based on the 2015 PAHO (Pan American Health Organization) reported price. All other costs and utilities were based on literature.**RESULTS:** PPSV23 was more effective than PCV13 in reducing pneumococcal disease and the associated

costs in 65-year-old adults in Colombia. Specifically, PPVSV23 reduced IPD cases by 20.0%, NBPP cases by 12.4%, IPD deaths by 16.5%, and NBPP deaths by 10.3%; PVC13 reduced IPD cases by 17.0%, NBPP cases by 9.8%, IPD deaths by 14.8%, and NBPP deaths by 8.6% (all versus no vaccination). From an economic perspective, both PPSV23 and PCV13 were cost-saving relative to no vaccination. However, vaccinating adults with PPSV23 reduced costs more than PCV13. The most influential parameters in the analysis were vaccine effectiveness against NBPP and the duration of vaccine protection. PPSV23 is a less costly and more effective vaccination strategy than PCV13 when the degree of vaccine protection for PPSV23 against NBPP is greater than 30% and the duration of vaccine protection is the same. **CONCLUSIONS:** PPSV23 is a more effective and less costly vaccination strategy than PCV13 for adults 65 years of age in Colombia.

PIN22: ECONOMIC EVALUATION OF ERTAPENEM IN THE TREATMENT OF INTRA-ABDOMINAL INFECTIONS, FROM THE PERSPECTIVE OF IMSS

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OBJECTIVES: Conduct a cost effectiveness analysis of ertapenem in the treatment of moderate community acquired intra-abdominal infections, from the Instituto Mexicano del Seguro Social (IMSS) perspective.**METHODS:** Cost-effectiveness analysis from the IMSS perspective based on a decision analytic model of hypothetical cohorts. Target population was patients over 15 years covered by IMSS with moderate community acquired intra-abdominal infection caused by E. coli. The time horizon was one year. Response parameters used were obtained from literature and cost inputs were obtained from IMSS´DRGs. A univariate sensitivity analysis was performed **RESULTS:** Total costs of treatment were $24,912.84 MXP for ertapenem, $31,609.52 MXP for meropenem, $32,705.57 for ceftazidime/metronidazole, $32,808.58 for ceftriaxone/metronidazole, $36,335.15 MXP for levofloxacin/metronidazole and $36,588.39 MXP for ciprofloxacin/metronidazole. Compared to ertapenem, savings ranged from $11,676 MXP for ciprofloxacin/metronidazole to $6,697 MXP for meropenem. Ertapenem as a first line treatment option in moderate community acquired intra-abdominal infection has the lowest treatment cost and has the best success therapeutic rate. **CONCLUSIONS:** Ertapenem is a dominant cost-effective and cost-saving alternative for the treatment of moderate community acquired intra-abdominal infection.

PIN23: COSTO-EFECTIVIDAD DE LA VACUNA CONTRA EL DENGUE 2014

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OBJECTIVOS: El dengue es considerado como una enfermedad de interés público en los países de áreas tropicales y sub-tropicales. El objetivo de este estudio es evaluar para Colombia el impacto de una vacuna tetravalente contra el dengue, mediante un análisis costo-efectividad calculando la carga de la enfermedad a partir de DALYs. **METODOLOGÍAS:** Desarollo de un modelo para evaluar el análisis del costo efectividad incorporando la protección indirecta y con ajuste por el nivel de subregistro en el número de casos de dengue reportados en Colombia. **RESULTADOS:** Al utilizar como referencia el criterio de la OMS para evaluar intervenciones en salud, incluyendo en el análisis el efecto indirecto de la vacunación y ajustando el número de casos de dengue reportados por el subregistro, se identifica que si la vacunación inicia en un periodo epidémico —desde la perspectiva del tercer pagador— el precio máximo por dosis para que la intervención sea costo-efectiva es US$ 65,61 si la vacuna es aplicada a la población en riesgo de nueve años; US$ 66,65 si se aplica en la población entre los nueve y diecisiete años; y US$ 33,37 vacunando a la población de nueve o más años. **CONCLUSIONES:** Estos resultados permiten identificar el precio máximo para que la intervención sea costo-efectiva considerando niveles de protección indirecta de la vacunación sobre los no-vacunados y considerando el ajuste por el subregistro en el número de casos reportados. Estos resultados representan la primera ocasión en que la vacuna contra el dengue de Sanofi Pasteur es evaluada a través de los resultados de eficacia obtenidos en su fase III en América Latina.

PIN24: SIMEPREVIR PLUS PEGINTERFERON/RIBAVIRIN COST-EFFECTIVENESS ANALYSIS FOR THE TREATMENT OF CHRONIC GENOTYPE 1 HEPATITIS C IN MEXICO

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OBJECTIVES: To assess the cost-effectiveness and cost-utility of simeprevir (SMV) plus peginterferon/ribavirin (PR) versus boceprevir (BOC)/PR in treatment-naïve patients [METAVIR F0-F3], versus PR in treatment-naïve [F0-F3 and F4] and treatment-experienced patients in partial and null responders [F0-F4], and versus “no treatment” in treatment-experienced patients [F0-F4], chronically infected with hepatitis C virus (HCV) genotype 1, in Mexico. **METHODS:** A lifetime Markov model, was used to estimate disease progression for treatment-naïve and treatment-experienced patients aged 47.8 years. Dosage regimens, including response-guided therapy and futility stopping rules, were based on Mexican HCV treatment guidelines. Sustained viral response rates were obtained from relevant phase II/III clinical trials. Patient baseline characteristics, mortality, discount rates and unit costs were obtained from local sources and an advisory board. HCV progression rates and health related quality of life estimates were based on published literature and HCV cost-effectiveness models. Sensitivity analyses were conducted to estimate discounted quality adjusted life years (QALYs) and costs (in Mexican pesos). **RESULTS:** In the treatment-naïve, F0-F3 population, SMV/PR was the dominant alternative, accruing more QALYs and less costs per patient compared to BOC/PR and PR alone (11.25 vs 11.08 and 10.67; $348,355 vs $455,709 and $368,416, respectively). Likewise, SMV/PR was the dominant treatment option when compared with PR alone in the treatment-naïve, F4 population (7.43 vs 6.85 QALYs; $668,475 vs $731,854, respectively) and treatment-experienced (9.27 vs 8.42; $559,697 vs $609,751,

respectively). Compared to “no treatment”, more costs and more QALYs were accumulated resulting in an incremental cost-utility ratio of $43,116 in the treatment-experienced population. Multivariate probabilistic sensitivity analyses showed that at a willingness-to-pay threshold of $100,000, the probability that SMV/PR is cost-effective was >80% for all treatment groups. **CONCLUSIONS:** SMV/PR appears a cost-effective treatment option in genotype 1 HCV patients compared to other regimens currently available in Mexico, regardless of treatment experience and fibrosis.

PIN25: COST EFFECTIVENESS OF TRIPLE THERAPY FOR ADULTS PATIENTS WITH GENOTYPE 1 CHRONIC HEPATITIS C

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OBJECTIVES: The prevention, diagnosis and treatment of chronic hepatitis C integrates health policies in Brazil and worldwide. This disease affect many people, features high cost treatment and cause severe outcomes and disability, increasing social cost. We performed a cost-effectiveness analysis under the perspective of SUS, with the following strategies: treatment and retreatment with dual therapy, treatment with dual therapy and retreatment with triple therapy and treatment with triple therapy. **METHODS:** A Markov model was developed with a hypothetical cohort of 1000 adults, over 40 years, of both sexes, with confirmed diagnosis for chronic hepatitis C, monoinfected by HCV genotype 1 and absence of comorbidities.The simulation started with all individuals carrying the milder form of the disease, considered F0 or F1, according to Metavir histological classification. **RESULTS:** The results demonstrate the dual/triple therapy and triple therapy are below the acceptable threshold for embedding technology proposed by the WHO. Both are cost-effective. ICER of dual/triple therapy compared with base line was 7186.3 (R$/QALY) and the triple therapy compared with dual/triple therapy was 59053.8 (R$/QALY). However, the incremental cost of triple therapy compared to dual/triple therapy was 31029 and incremental effectiveness was 0.52. Triple therapy, despite having a little more effectiveness than the dual/triple therapy, showed much highercost. **CONCLUSIONS:** Thus, as would be consistent adopt one or the other for use in the SUS, since this system has limited resources, is better indicate the realization a budget impact analysis to have one more data information to support the decision to continue adopting the Brazilian guideline existing or suggest making another one.

PIN26: SIMEPREVIR PLUS PEGINTERFERON/RIBAVIRIN COST-EFFECTIVENESS ANALYSIS FOR THE TREATMENT OF CHRONIC GENOTYPE 1 HEPATITIS C IN COLOMBIA

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OBJECTIVES: To assess the cost-effectiveness of simeprevir (SMV) plus peginterferon/ribavirin (PR) versus triple therapy regimens of boceprevir (BOC)/PR and telaprevir (TVR)/PR and PR dual therapy in treatment-naïve and treatment-experienced patients, chronically infected with hepatitis C virus (HCV) genotype 1, in Colombia. **METHODS:** A lifetime Markov model, applying a generally accepted structure, was used to estimate disease progression of HCV patients aged 50 years. Dosage regimens, including response-guided therapy were based on the approved labels for each product. Sustained viral response rates, were obtained from a mixed treatment comparison. Costs were estimated from health care system perspective and are expressed in local currency (COP). A review of the literature to obtain epidemiologic and resource utilization data was performed and when data were not available or validation was needed a Delphi panel with local experts was carried out. Primary outcomes included discounted quality adjusted life years (QALYs) and costs. Deterministic and probabilistic sensitivity analyses were performed to assess uncertainty. **RESULTS:** Treatment-naïve: In comparison with TVR/PR, BOC/PR and PR, SMV/PR incurred 0.133, 0.171 and 0.858 additional QALYs, respectively. SMV/PR is dominant compared to BOC/PR and TVR/PR as more total QALYs are gained and less costs accrued. The cost-effectiveness ratio of SMV/PR vs. PR is estimated at COP 22,984,021/QALY. Treatment experienced: In comparison with TVR/PR, BOC/PR and PR, SMV/PR increased QALYs by 0.043, 0.133 and 1.064, respectively. SMV/PR is dominant compared to BOC/PR and TVR/PR as more total QALYs are gained and less costs accrued. The cost-effectiveness ratio of SMV/PR vs. PR is estimated at COP 22,437,019/QALY. These results were robust in the sensitivity analyses. **CONCLUSIONS:** SMV/PR dominated TVR/PR and BOC/PR, and is a cost-effective treatment option against WHO 3x GDP criteria in comparison to PR alone for treatment-naïve and treatment-experienced genotype 1 HCV patients in Colombia.

PIN27: COST-EFFECTIVENESS ANALYSIS OF SIMEPREVIR AND SOFOSBUVIR COMBINATION THERAPY FOR THE TREATMENT OF GENOTYPE 1 HCV PATIENTS IN THE DOMINICAN REPUBLIC

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OBJECTIVES: To assess the cost-effectiveness of simeprevir plus sofosbuvir +/- ribavirin (SMV/SOF) versus sofosbuvir plus peginterferon/ribavirin (SOF/PR) and SOF/R regimens in treatment-naïve (METAVIR F3-F4) and prior-null-responder patients (F0-F4) infected with genotype 1 HCV in the Dominican Republic (DR). **METHODS:** A Markov model, based on existing cost-effectiveness analyses, was applied to estimate disease progression of a cohort of genotype 1 HCV patients aged 47.8 years over a life time horizon. Sustained viral response (SVR) rates were obtained from the COSMOS study for SMV/SOF, from NEUTRINO for SOF/PR and from SPARE and QUANTUM for SOF/R. SVR rates for SOF/R and SOF/PR in null responder patients were conservatively assumed equal to treatment-naïve patients. Patient baseline characteristics, mortality, discount rates and unit costs were obtained from local sources. HCV progression rates and health related quality of life estimates were based on literature and HCV cost-effectiveness models. Various sensitivity and scenario analyses were conducted to assess uncertainty around the estimated discounted quality adjusted life years

(QALYs) and costs. **RESULTS:** In the treatment-naïve patient population, SMV/SOF accrued 0.59 more QALYs and incurred $330,982 less costs per patient compared to SOF/R, resulting in SMV/SOF as the dominant treatment option. Compared to SOF/PR, SMV/SOF accrued 0.08 additional QALYs and $52,319 additional costs resulting in a cost-effectiveness ratio of $626,676 and was cost-effective against WHO 3GDP criteria. In the prior-null-responder population, SMV/SOF dominated both comparators. Multivariate probabilistic sensitivity analyses showed that at a willingness-to-pay of $1,000,000, the probability of SMV/SOF being cost-effective was estimated at 62% and 92% in the treatment-naïve and prior null responder population, respectively.**CONCLUSIONS:** SMV/SOF provides higher efficacy compared to its competitors, especially for patients that are more difficult to treat (prior null responders). Compared to SOF/R and SOF/PR, SMV/SOF represents a cost-effective treatment option to treat genotype 1 HCV patients in DM.

INFECTION - Patient-Reported Outcomes & Patient Preference Studies

PIN28: AVALIAÇÃO DA ADESÃO AO PROTOCOLO DE TRATAMENTO DE PESSOAS VIVENDO COM HIV/AIDS: CONHECER BEM PARA CUIDAR MELHOR

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OBJETIVOS: O protocolo para HIV/AIDS do Ministério da Saúde brasileiro garante acesso universal ao tratamento para as pessoas infectadas por esse vírus (BRASIL, 2013). Os esquemas iniciais, preferencialmente recomendados, permanecem constituídos por dois inibidores de Transcriptase reversa análogo de nucleosídeos (zidovudina+lamivudina) e um inibidor de transcriptase reversa não-análogo de nucleosídeos (efavirenz). Neste sentido, este trabalho, buscou determinar a adesão dos pacientes à primeira linha antirretroviral dessa tratativa. **MÉTODOS:** Estudo longitudinal com 100 pacientes em Acompanhamento Farmacoterapêutico (AFT), utilizando o Método Dáder, atendidos em um Centro de Especialidades Médicas em Fortaleza-CE, no período de novembro/2008 a agosto/2012. Os dados foram analisados em SPSS. Estudo aprovado pelo Comitê de Ética – Universidade Federal do Ceará (Protocolo Nº 191/08). **RESULTADOS:** Durante o AFT obteve-se média de 1,41 esquemas/paciente, com uma mediana de 1,00; desvio padrão de 0,79 e máximo de 05 mudanças de esquemas de antirretrovirais. Na primeira linha, foram prescritos 15 diferentes tipos de esquemas antirretrovirais. A adesão global ao protocolo governamental foi de 79%, sendo de 44%(44/100) a adesão ao padrão: (zidovudina + lamivudina) + efavirenz, seguido do esquema alternativo envolvendo os inibidores de protease lopinavir/ritonavir agregado aos inibidores nucleosídeos da transcriptase reversa zidovudina/lamivudina, em 25% (25/100) do total na primeira escolha. Observou-se que a lamivudina esteve presente na totalidade das escolhas terapêuticas iniciais prescritas e que os esquemas mais usados compreendiam o de três fármacos, correspondente a 86% (n=86/100). **CONCLUSÕES:** Os resultados apontaram uma adesão considerável, mas ainda há oportunidades de melhorias ao Protocolo Federal, com pacientes iniciando seus tratamentos com esquemas antirretrovirais diferentes do preconizado pelas Diretrizes do Ministério da Saúde brasileiro. No entanto, podem-se considerar algumas especificidades para estas escolhas e que podem requerer estudos mais aprofundados nesse cenário, com uma abordagem mais específica para uma melhor compreensão de suas causalidades.

PIN29: THE ASSOCIATION BETWEEN TOLERABILITY ISSUES AND HEALTH OUTCOMES AMONG PATIENTS WITH HCV IN BRAZIL

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OBJECTIVES: The hepatitis C virus (HCV) is one of the most common blood-borne viral illnesses in Brazil and associated with various sequelae including cirrhosis and hepatocellular carcinoma. Treatment can be effective but also carries the risk of tolerability issues. The current study assessed the prevalence of tolerability issues among HCV patients and their association with health outcomes. **METHODS:** Data were derived from the 2011/2012 Brazil National Health and Wellness Survey (N=24,000), an Internet-based health survey administered to a representative sample of the Brazilian adult population. HCV patients with treatment experience were categorized based on the presence or absence of tolerability issues. Patients with a diagnosis of anemia, a diagnosis of depression, or a positive screen for depression based on the Patient Health Questionnaire-9 (i.e., score of 5+) were considered to have tolerability issues. Patients with and without tolerability issues were compared with respect to health outcomes (SF-36v2, Work Productivity and Activity Impairment questionnaire, and healthcare resource use) using regression modeling. **RESULTS:** N=197 patients reported a diagnosis of HCV. Of these, N=117 (53.9%) were currently using treatment (77.8% using either ribavirin and/or interferon-alfa) or had been treated in the past. 57.3% of patients (N=67) experienced a tolerability issue. These patients had been diagnosed more recently compared with patients without a tolerability issue (13.4% vs. 6.0%, respectively, were diagnosed <5 years ago; p<.05). No other demographic and healthy history differences were observed. The presence of tolerability issues was associated with worse health utilities (0.63 vs. 0.75), a greater level of overall work impairment (48.3% vs. 9.67% work time missed or impaired), and more hospitalizations in the past 6 months (0.81 vs. 0.13) (all p<.05). **CONCLUSIONS:** Anemia and depression are common tolerability issues among those with HCV in Brazil and are associated with significantly worse health outcomes. More tolerable treatments could have significant patient and societal benefits.

PIN30: QUALITY OF LIFE OF HIV-INFECTED PATIENTS ATTENDING TO A UNIVERSITY INFECTIOUS DISEASES CLINIC IN VENEZUELA

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OBJECTIVES: The aim of this study was to describe health-related quality of life (HRQoL) of HIV-infected patients attending to a university infectious diseases clinic in Venezuela. **METHODS:** A sample of 82 HIV-infected HIV patients attending an infectious diseases clinic at the Central University of Venezuela was interviewed by the investigator for 20 to 25 minutes. The interview was guided by a structured questionnaire that included questions on sociodemographic and clinical characteristics, HRQoL, medication use, symptoms, and health behaviors. HRQoL was assessed using Spanish versions of EQ-5D descriptive system and EQ visual analogue scale (EQ-VAS). HIV-symptoms were assessed using the Adult AIDS Clinical Trials Group (AACTG) symptom scale. Data concerning CD4-cell count and viral load was extracted from the medical records. All data analyses were performed using SSPS for Windows Version 19.0. **RESULTS:** Of 82 participants, 50 (61%) were male and 32 (49%) were female. The mean age was 43.33 years (Range 18-73, SD= 10.378). Concerning the EQ-5D, none subject reported problems with self-care. Three subjects (3.7%) reported some problems with mobility. Six subjects (7.3%) reported some problems with usual activity. Twenty nine subjects (35.4%) reported some problems with pain/discomfort and 28 subjects (34.1%) with anxiety/depression. Mean rate of own health on EQ-VAS was 84.77 (SD 15.927). The mean reported symptoms was 38.84 (SD = 13.08; range 21-80). The mean CD4-cell count was 534.42 (SD = 264.02; range 75-1237). Fifty-two subjects (71.2%) had an undetectable viral load. Subjects were taking an average of 3.97 antiretroviral doses per day (SD = 1.81; range = 1-8).**CONCLUSIONS:** Study limitations include the sample size and the use of a convenient sample. Overall, this exploratory study demonstrates that quality of life among this group of HIV-infected patients in Venezuela was good.

PIN31: PRELIMINARY OUTCOMES OF HEALTH-RELATED QUALITY OF LIFE IN HIV-INFECTED NAÏVE PATIENTS

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OBJECTIVES: assessment of health-related quality of life in a cohort of HIV-infected patients. **METHODS:** patients with diagnosis of HIV infection initiating antiretroviral therapy, receiving health education from a Pharmacist and a Doctor, belonging to the Health promoting entity “SURA”, in the department of Antioquia (n=70). Evaluation period: Between August 2014 and February 2015. Measurements: Baseline (diagnosis), second measurement (one month after), third measurement (three months after). Questionnaire used: The World Health Organization Quality of Life (WHOQOL)-BREF was used after previous approval of the World Health Organization and SURA’s Scientific Direction. The Statistical software “Rstudio Version 0.98.1103– ©2009-2014 RStudio, Inc.” was used for that purpose. **RESULTS:** average age: 31 years [25-38], 92% men, 58% with higher education, 76% singles, 78% homosexuals, 74% employed. In general, the HRQOL behavior was: Baseline: 75 [63-90], 1st: 82 [70-88], 2nd: 83 [70-95]. When stratifying in terms of dimensions: Psychological: Baseline: 78 [63-85], 1st: 81 [70-86], 2nd: 81 [78-96]. Environmental: Baseline: 76 [64-82], 1st: 82 [68-88], 2nd: 82 [76-95]. Physical health: Baseline: 81 [62-86], 1st: 81 [70-81], 2nd: 81 [70-86]. Relationships: Baseline: 69 [57-80], 1st: 72 [57-80], 2nd: 76 [57-100]. **CONCLUSIONS:** the most affected dimension measured by the WHOQOL at the beginning of antiretroviral therapy was “Relationships”. The Environmental and Psychological dimensions experienced greater improvement according to time.

INFECTION - Health Care Use & Policy Studies

PIN32: BENEFÍCIOS MATERIAIS COMO INCENTIVO PARA REDUÇÃO DE ABANDONO DE TRATAMENTO DE TUBERCULOSE EM PESSOAS VIVENDO EM SITUAÇÃO DE RUA: REVISÃO DE ANÁLISES ECONÔMICAS

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OBJETIVOS: Identificar opções de intervenções custo efetivas para incentivar redução de abandono da população em situação de rua a tratamentos de tuberculose pulmonar. No Brasil foram notificados 73 833 casos novos na população geral em 2011. Estudos realizados em capitais relataram incidência de TB na população em situação de rua entre 1.576 e 2.750/100mil hab. Uma das populações prioritárias é aquela vivendo em situação de rua, devido a maior vulnerabilidade e risco e pelo alto percentual de abandono. **MÉTODOS:** busca estruturada nas bases de dados, PubMed, BVS, CRD, Scopus,Science Direct e Web of Science. Foram considerados três critérios de inclusão: avaliação econômica, intervenções para tuberculose e população em situação de rua. **RESULTADOS:** sete estudos de 93 atenderam os critérios de inclusão. Desses, apenas dois abordaram formas de apoio para aumento da adesão ao tratamento pelos pacientes. TULSKY et al (2003) utilizaram dois tipos de incentivos para tratamento diretamente observado (TDO), um em dinheiro e outro em oferta de alimentação ou vale transporte. Ambos foram considerados viáveis economicamente para o aumento da adesão ao tratamento na PSR, com taxa de adesão de 86%. PHILIP et al (1999) analisaram o programa de alojamentos com alimentação e cuidados higiênicos e TDO. O custo diário de permanência no programa foi onze vezes mais barata que o custo diário de uma internação hospitalar, o que geraria uma economia de mais de US$ 27 mil por paciente em 20 meses. **CONCLUSÕES:** Os dois estudos encontrados permitiram identificar duas opções de intervenções cost saving envolvendo oferta de benefícios materiais no contexto do País que desenvolveu a estratégia. As análises detalhadas dessas opções servirão para compor uma síntese de evidencias para políticas de saúde, destinadas a identificar opções viáveis para redução de abandono a tratamentos em populações altamente vulneráveis como aquelas vivendo em situação de rua.

PIN33: COSTOS DE MEDICAMENTOS EN EL MARCO DE UN PROGRAMA PRESUPUESTAL PARA EL VIH/SIDA EN PERÚ, 2012-2014

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OBJECTIVOS: Estimar el costo de medicamentos para la intervención de atención integral de personas diagnosticadas con VIH/SIDA, para reducir la morbimortalidad por VIH/SIDA en el Perú, 2011-2014.**METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en relación a medicamentos. Se tomó en consideración la asignación presupuestal en la intervención de atención integral de personas diagnosticadas con VIH/SIDA, en el marco del programa presupuestal. Se contrastó el uso de recursos médicos en medicamentos versus la cantidad de medicamentos antiretrovirales distribuidos a nivel nacional (Efavirenz 600mg, tableta) tomados del reporte de la Dirección de Abastecimientos de Recursos Estratégicos (DARES) del MINSA y los casos notificados de SIDA por año a nivel nacional tomados de la Dirección General de Epidemiología (DGE) del MINSA, 2012-2014. **RESULTADOS:** El uso de recursos médicos en medicamentos se incrementó en el periodo 2012-2014 en 52% de $9.7 millones a $14.5 millones. Para el mismo periodo, la cantidad de antiretrovirales distribuidos (Efavirenz 600mg, tableta) se incrementó en 85% de 407,780 tabletas a 752,565 tabletas y los casos notificados de SIDA disminuyeron 13% de 1109 casos a 968 casos. **CONCLUSIONES:** La asignación presupuestal en medicamentos se ha incrementado, la cantidad de antiretroviral distribuido también se ha incrementado y los casos de SIDA han disminuido en el periodo 2012-2014.

PIN34: FINANCIAL IMPACT OF NOT PRESCRIBING "BY THE BOOK": ART AND SUSTAINABILITY OF SEGURO POPULAR

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OBJECTIVES: Estimate the financial impact of current prescription practices for first time enrollees (FTE) financed by SP and calculate potential savings if physicians were adhered to the official guidelines. **METHODS:**Data for FTE about prescriptions, CD4, Viral Load and public purchase ART prices were obtained from CENSIDA for period January 2012 to Jun 2014. Information was analyzed to identify ART prescriptions according to official guidelines. Average annual cost (AAC) of ART per enrollee was estimated under two scenarios of prescription: a) observed in practice; b) according to official guidelines. With the AAC of ART we estimated the potential savings that would be generated for SP. **RESULTS:** Around 60% of ART observed prescriptions for FTE adhered to official guidelines. AAC of current prescription for 9,500 FTE amounts to US$34.1 million equivalent to 23% of financial resources available for high cost treatments in SP. If physicians would had adhered to the official guidelines savings for US$5.4 million that represents 16% of the total annual spending in FTE would had been generated in the period analyzed. On average FTE who initiate ART are maintained for 3.5 years with the initial scheme, thus savings that could be generated would reach US$18.8 million.**CONCLUSIONS:** Financing ART given its chronic nature creates an increasing pressure in the public funds available for high cost treatments in SP. This situation would generate insolvency in the midterm if public policies focused on strengthening prescription monitoring and sanction, cost containment of ART and health outcomes are not enforced in the short term.

PIN35: COSTO EN SALUD EN LA INTERVENCION DE ATENCION INTEGRAL DE PERSONAS DIAGNOSTICADAS CON VIH/SIDA PARA REDUCIR LA MORBIMORTALIDAD POR VIH/SIDA EN EL PERÚ, 2011-2014

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OBJECTIVOS: Estimar el costo en salud en la intervención de atención integral de personas diagnosticadas con VIH/SIDA para reducir la morbimortalidad por VIH/SIDA en el Perú, 2011-2014. **METODOLOGÍAS:** Se desarrolló bajo la metodología de uso de recursos médicos, en referencia al recurso humano, materiales e insumos médicos, medicamentos y equipamiento. Se tomó en consideración la asignación presupuestal en la intervención de atención integral de personas diagnosticadas con VIH/SIDA, en el marco de Presupuesto por Resultados (PpR). Se contrastó el uso de recursos médicos de atención integral versus la incidencia de VIH/SIDA a nivel nacional tomados de la Red Nacional de Epidemiología (RENACE) DGE – MINSA 2011-2014 **RESULTADOS:** : El uso de recursos médicos en la intervención de atención integral de personas diagnosticadas con VIH/SIDA se incrementó en el periodo 2011-2014 en recursos humanos de $. 1.1 millones a $. 4.7 millones (336%), materiales e insumos médicos de $. 3.5 a $. 4.3 millones (23%), medicamentos de $ 3.4 a $14.5 millones (323%), equipamiento de $ 86,847 a $ 0.35 millones (317%). La incidencia de casos de SIDA 2011 – 2014, disminuyó en 19% de 1194 a 968 casos notificados. **CONCLUSIONES:** La atención integral de personas diagnosticadas con VIH/SIDA disminuye la incidencia de VIH/SIDA, sin embargo, se requiere una adecuada calidad de gasto en esta intervención

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PIN36: HEALTHCARE RESOURCE UTILIZATION ASSOCIATED WITH VARICELLA IN ARGENTINA

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OBJECTIVES: Currently there is limited information available on the burden of varicella in Argentina. The objectives of this study are to examine the healthcare resource utilization associated with varicella and varicella-related complications in Argentina. **METHODS:** This multicenter observational study utilized a retrospective chart review design among seven nationally representative hospitals to identify patients who were primarily diagnosed with varicella at the age of 1-12 years, and were admitted to the hospitals for varicella during 2009-2014. Descriptive analyses were applied to examine frequency and duration of healthcare resource utilization associated with varicella and varicella-related complications. **RESULTS:** The total study population consisted of 75 patients who were admitted to hospital due to varicella (mean age 3.4 years old), with 92.0% (n=69) hospitalized and 8.0% (n=6) admitted into intensive care unit (ICU). The majority of patients (98.7%) hospitalized for varicella were diagnosed with varicella-related complications, with 78.4% having one and 21.6% having more than one complications. The most common complication was skin and soft tissue infection (63.5%), followed by pneumonia (7.3%) and sepsis (5.2%). The average hospitalization days for these varicella inpatients who were admitted to

the hospital were 5 days, and for those admitted into ICU were 6 days. Among these varicella inpatient cases, more than two-thirds (77.3%) received prescription medications or treatment, with an average of 2.2 prescriptions and 10.1 days treatment. In addition, 70.7% patients received at least one type of lab tests or procedures, and 33.3% patients consulted with allied medical professionals. **CONCLUSIONS:** This study demonstrates the substantial healthcare resource utilization associated with varicella and highlights the significant economic burden of varicella in Argentina.

PIN37: RESISTÊNCIA ANTIMICROBIANA: IDENTIFICAÇÃO DAS PESQUISAS BRASILEIRAS FOMENTADAS PARA SUPORTE À GESTÃO NO PAÍS

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BACKGROUND: A resistência antimicrobiana (RAM) é um problema global crescente e preocupante na comunidade científica, que levou a Organização Mundial da Saúde a alertar governos e autoridades para a questão de saúde pública. No Brasil, o assunto tornou-se pauta nas agendas de saúde, agropecuária, pesca e aqüicultura. Algumas ações de prevenção, monitoramento e combate à RAM estão sendo tomadas, focadas, especialmente, em patógenos de interesse comum à saúde humana e animal. A fim de melhor subsidiar tais ações, o Departamento de Ciência e Tecnologia do Ministério da Saúde do Brasil (DECIT/MS) resolveu quantificar as pesquisas sobre o tema já fomentadas pelo DECIT e com isso identificar lacunas nacionais em gestão em ciência e tecnologia em saúde sobre RAM. **OBJETIVOS:** Identificar as pesquisas nacionais sobre RAM fomentadas pelo DECIT para melhor informar a tomada de decisão das autoridades brasileiras quanto às estratégicas para redução da propagação da RAM no País. **MÉTODOS:** Realizou-se busca no sítio Pesquisa Saúde(que contém as pesquisas financiadas pelo DECIT) com os termos: “resistência microbiana” e “resistência antimicrobiana”. Após recuperação dos resultados, excluíram-se as duplicatas e procedeu-se a análise dos dados. **RESULTADOS:** Desde 2004, o DECIT aplicou R$1,3 milhão em 17 projetos na área, dos quais a maioria versava sobre pesquisa biomédica e o processo saúde-doença. A maior parte dos recursos fomentados foi consumida por biotecnologias. Poucas pesquisas abordavam o sistema de saúde e o planejamento e a gestão de políticas, programas e serviços. Há, portanto, carência nacional de dados científicos sobre: impacto da RAM sobre a morbimortalidade, tempo de colonização do paciente após alta hospitalar e ônus econômico para o sistema de saúde. **CONCLUSÕES:** Tais achados poderão auxiliar as pastas governamentais a estabelecer prioridades nacionais para vigilância, prevenção, controle e combate à RAM.

MUSCULAR-SKELETAL DISORDERS - Clinical Outcomes Studies

PMS1: DISTRIBUCIÓN GEOGRÁFICA Y ACCESO A TERAPIAS BIOLÓGICAS EN PACIENTES CON DIAGNÓSTICO DE ARTRITIS REUMATOIDE (AR) EN COLOMBIA

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OBJECTIVOS: Describir la distribución geográfica de los pacientes con diagnóstico de artritis reumatoide (AR) en Colombia y el acceso a tratamientos biológicos. **METODOLOGÍAS:** Se realizó un estudio observacional descriptivo, que se dividió en dos fases: En la primera, se desarrolló un análisis de la información proveniente del sistema nacional de información en salud de Colombia (SISPRO), y de las bases de datos de dos Empresas Promotoras de Salud (EPS) de los pacientes diagnosticados con AR atendidos en el último año. En este análisis se estudió el comportamiento de la distribución de los pacientes según régimen de afiliación, localización y género. La segunda fase consistió en una entrevista estructurada (n=50 reumatólogos) sobre el tratamiento de AR y la percepción del acceso a medicamentos. **RESULTADOS:** En Colombia, la distribución por generó de los pacientes con AR muestra que hay más mujeres que hombres en los diferentes departamentos en una relación de 5:1. Por otro lado, el 62.8% de los pacientes obtienen acceso a los servicios de salud en Bogotá, Antioquia, Valle del Cauca y Santander. El 90% de los pacientes con AR viven en el área urbana. En el área rural, los departamentos de Antioquia, Boyacá y Cundinamarca presentaron mayor número de pacientes. Los resultados de la encuesta indican que el 57% de los pacientes se encuentran con FARMES convencionales, 20-49% son tratados con algún FARME biológicos, y el 11% son tratados con FARMEs biológicos diferentes a los anti-TNF. El 92% de los especialistas mencionan que hay dificultades de acceso por trámites administrativos, distancia en la atención y escasez de FARMEs. **CONCLUSIONES:** La mayoría de los pacientes con AR en Colombia se encuentra en los departamentos de Cundinamarca, Antioquia, Valle del Cauca y Santander, siendo más frecuentes en el régimen contributivo y localizado en el área urbana.

PMS3: OCCURRENCE OF TREATMENT INTERRUPTION DURING THERAPY WITH BIOLOGICAL AGENTS IN PATIENTS WITH PREVIOUS ANTI-TNF FAILURE IN RHEUMATOID ARTHRITIS

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OBJECTIVES: To identify, evaluate and compare the main reasons for discontinuation of treatment with biologicals Abatacept, Anankira, Rituximab and Tocilizumab in patients with history of TNF inhibitor failure.**METHODS:** A systematic review with meta-analysis was conducted in Medline (PubMed), IPA (International Pharmaceutical Abstracts) and manual search. Filters to limit date or language were not used and publications were considered until 02/03/2015. Were searched randomized controlled trials (RCTs) that compared Abatacept, Anankira, Rituximab and Tocilizumab to placebo. Treatment discontinuations were evaluated. The EndNoteX3 was used for

organizing articles, data collection was conducted in Microsoft Office Excel 2007 and direct meta-analysis have been developed with Review Manager 5.1. **RESULTS:** 446 studies were identified, five presented the selection criteria for the meta-analysis. No studies concerning Anankira treatment were identified. For Abatacept, Rituximab and Tocilizumab were found a higher incidence of treatment withdrawn between placebo compared to drugs, then final value of odds ratio 0.38 (CI 0.30-0.48). About interruptions related only to lost of efficacy, there was a higher incidence in placebo group, with odds ratio 0.23 (CI 0.17-0.33). Nevertheless, regarding the number of withdrawals due to adverse events were not found statistically significant difference between the placebo and treatment groups, with odds 1.10 (CI 0.59-2.05). Heterogeneity between studies was not superior than 31% in any meta-analysis. **CONCLUSIONS:** In addition to the small number of RCTs with studied population, they were not able to allow differentiation between the biological agents evaluated. Although it is possible to infer that the treatments mentioned in patients with anti-TNF failure history carries a lower risk of discontinuation compared to not use these ones. Despite extension of RCTs and cohort studies mostly do not use comparator as placebo, they could contribute with more information regarding treatment interruption.

MUSCULAR-SKELETAL DISORDERS - Cost Studies

PMS4: BUDGET IMPACT OF GOLIMUMAB IV FOR RHEUMATOID ARTHRITIS IN THE CHILEAN PRIVATE SECTOR

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OBJECTIVES: Golimumab intravenous (IV) is an approved biologic therapy for the treatment of adults with moderately to severely active rheumatoid arthritis (RA). Drug reimbursement decisions are generally based on therapeutic value, cost-effectiveness, and burden of disease. The potential financial or budget impact of granting access to a product is an important factor when making reimbursement decisions as part of a comprehensive economic evaluation of a new health technology.To evaluate the potential financial impact of golimumab in the treatment of moderately to severely active rheumatoid arthritis (RA) in Chile. **METHODS:** A budget impact model, employing a third-party payer perspective, with a two-year time horizon was developed. Population demographics were used to calculate the number of AR eligible patients to receive treatment with biologic therapies. Current and forecasted hypothetical market share sizes were applied for selected biologic products for this indication. Two scenarios were stated: without golimumab IV – with golimumab IV. Annual dose frequency was based on labeled dosing for each indication as stated in product´s prescribing information. Pricing inputs for all biologics were based on public listed prices of CESFAR as of 01/01/2015. IV administration costs were obtained from interviews with private payers. **RESULTS:** In a population of 2098 eligible patients for treatment with biological products: the total annual cost of treatment and total cost per patient per year were similar for both scenarios across the two years' time horizon with a tendency which favored the adoption of golimumab IV (Year 1: -1,20%), which increased in the second year (Year 2: -2.23%) for a total cost of treatment and total cost per patient over 2 years of -1,71%. **CONCLUSIONS:** Addition of golimumab IV in local formularies in Chile is budget favorable and does not impact negatively the annual health care budget of a payer while adding another therapeutic option for patients.

PMS5: IMPACT OF FINANCIAL INCENTIVES ON ACCESS TO SERVICES AND QUALITY OF CARE:

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OBJECTIVES: The waiting time is used to assess the level of access to health services. Waiting times that exceed the medically reasonable time has consequences not only on the quality of services, but also leads to unnecessary costs. Financial incentives to institutions has been explored in several experiments and gave encouraging results concerning the evolution of wait times. It is in this context that our study falls. Indeed, we seek to measure the impact of financial incentives, especially activity based funding experience, on waiting times and length of stay for surgeries. **METHODS:** Our data sample consists of two groups: treatment group (Quebec) and control group (British Columbia). We use a Mixed Proportional Hazard (MPH) model with difference in difference approach to estimate the hazard to move from a waiting state to a surgery state and from impatient state to discharge state. **RESULTS:** We demonstrate that each additional 1M$ of funding decreased the waiting time by 9.8 days for knee replacements and 5 days for hip replacements. On the other hand, length of stay decreased by 1.14 and 1.18 days for knee and hip surgeries, respectively. **CONCLUSIONS:** Surgery Access Program, analyzed in this text, has helped to reduce waiting time for knee and hip surgeries and also to decrease the length of stay for hospitalizations following these surgeries. The increase in surgical production encouraged hospitals to discharge patients more quickly, as long as this medical act does not decline the patient's health by more than a critical level. The length of stay reflects a dimension of quality but can't be considered as an outcome indicator. Improving waiting times and shortening lengths of stay while treating a larger volume, is certainly an improvement in the productivity of an hospital. However, we must ensure that this progress doesn't lead to a deterioration of the quality of services.

PMS6: ANKYLOSING SPONDYLITIS TREATMENT AND FOLLOW-UP COSTS IN COLOMBIA

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OBJECTIVES: to estimate the cost of Ankylosing spondylitis (AS) in Colombia. Background: AS is part of a group of pathologies of the spine called Spondylo-arthropathies, characterized by low frequency but with a severe disability, and high requirements of medical resources and costs. **METHODS:** A structured survey was answered by seven rheumatologists in the country, in order to determine

patterns of medication usage, management of adverse events, monitoring practice and follow-up of patients with AS in a year. Valuation of health resources and procedures were based on national standard tariffs (ISS 2001 + 30% and SOAT 2014). Medication prices were obtained from SISMED and price regulation official documents. Costs are reported in local currency (COP) **RESULTS:** Average annual cost of NSAIDs COP 105,509 pesos (range: COP 5,219.5 to 151,986). Second line DMARDs cost range between COP 3,104.33 and 4,307,000. Biologic antiTNF annual cost fluctuates towards COP 28.661.464 and 30.264.000. Monitoring and follow up costs range between COP 3.741.018 and 6.445.367. High uncertainty in expected adverse events costs between COP 6.558 to 3.382.456 per year. **CONCLUSIONS:** The AS is a disease represents a high economic burden for health system in Colombia.

PMS7: COSTO-UTILIDAD DE UN ESQUEMA INICIAL DE TRATAMIENTO CON TOFACITINIB COMPARADO CON TERAPIA BIOLOGICA ANTI-TNF EN PACIENTES ADULTOS CON ARTRITIS REUMATOIDE QUE HAN PRESENTADO RESPUESTA INADECUADA A METOTREXATO EN VENEZUELA

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OBJECTIVOS: Estimar la costo-utilidad de un esquema inicial de tratamiento con tofacitinib comparado con la terapia biológica anti-TNF en pacientes adultos con artritis reumatoide (AR) que han presentado respuesta inadecuada a metotrexato en Venezuela desde la perspectiva del pagador público. Tofacitinib se encuentra en proceso de aprobación por parte de las autoridades sanitarias. **METODOLOGÍAS:** Se realizó la adaptación de un modelo de microsimulación a nivel de paciente en Excel. Se compararon esquemas de tratamiento iniciando con adalimumab, etanercept, infliximab o tofacitinib. Cada alternativa de tratamiento se combinó con metotrexato. Se consideraron horizontes temporales de uno, cinco, diez años y toda la vida del paciente. La unidad de resultado fueron años de vida ajustados por calidad (AVAC). El puntaje inicial del HAQ (Health Assessment Questionnaire) como respuesta clínica de corto y largo plazo se tomó de la literatura y se realizaron comparaciones indirectas. Los costos (expresados en bolívares venezolanos de 2014, Bs.) fueron obtenidos de fuentes oficiales y manuales tarifarios. Para el caso de tofacitinib se asumió paridad de precio con etanercept. La tasa de descuento, 5% para costos y desenlaces. **RESULTADOS:** Para el horizonte temporal de toda la vida del paciente, los costos totales esperados fueron: adalimumab Bs. 2.248.884; etanercept Bs. 1.998.582; infliximab Bs 2.283.026 y tofacitinib Bs. 1.909.658. Los resultados en términos de AVAC fueron: adalimumab 10,4767; etanercept 10,6700; infliximab 10,7172 y tofacitinib 10,9100. **CONCLUSIONES:** Bajo los supuestos del modelo, el esquema de tratamiento que inicia con tofacitinib es una alternativa costo-ahorradora comparado con los esquemas que inician con adalimumab e infliximab en todos los horizontes temporales considerados. Comparado con el esquema que inicia con etanercept es una alternativa costo-efectiva en los horizontes de 5 y 10 años y costo-ahorradora en los horizontes de 1 año y toda la vida del paciente.

PMS8: ANÁLISIS DE COSTO EFECTIVIDAD Y COSTO UTILIDAD DE RITUXIMAB COMO TRATAMIENTO EN PACIENTES CON ARTRITIS REUMATOIDE, ANTE EL FALLO O INTOLERANCIA EN PRIMERA LÍNEA DE UN ANTI-TNF, EN EL CONTEXTO VENEZOLANO

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OBJECTIVOS: analizar la relación de costo--efectividad y costo-utilidad del uso de rituximab frente a un segundo Anti-TNF y abatacept para el manejo de pacientes con artritis reumatoide que no respondieron a la terapia en primera línea con un AntiTNF. **METODOLOGÍAS:** a través de un modelo de cadenas de Markov, que simuló la actividad de la enfermedad basado en la escala DAS28, se evaluó la efectividad de rituximab mediante los desenlaces años de vida con baja actividad de la enfermedad y años de vida ajustados por calidad de vida; la utilidad fue tomada de un estudio realizado en Colombia. Los costos se obtuvieron de bases de datos del Ministerio de Salud venezolano y de los manuales tarifarios en bolívares fuertes. Se realizó un análisis de sensibilidad univariado para el precio y un análisis probabilístico tipo Montecarlo. **RESULTADOS:** para un paciente en promedio y en un horizonte temporal de cinco años, rituximab mostró la mayor efectividad tanto desde los años de vida ajustados por calidad como por los años con enfermedad controlada (2,68 y 2,73) frente a los Anti-TNF (2,23 y 2,13). Al analizar las razones de costo efectividad, aplicando una tasa de descuento del 5% anual, rituximab mostró dominancia frente a abatacept ($47.361,06) y costo-efectividad frente a los demás. En todas las iteraciones del análisis de sensibilidad se mantuvo la costo-efectividad de rituximab. **CONCLUSIONES:** desde la perspectiva del sistema de salud venezolano el uso de rituximab es una opción dominante en el tratamiento de pacientes con artritis reumatoide en segunda línea frente a un nuevo Anti-TNF para las condiciones del caso analizado.

PMS9: ANÁLISIS DE MINIMIZACIÓN DE COSTOS DE TOFACITINIB EN EL TRATAMIENTO DE PACIENTES CON ARTRITIS REUMATOIDE QUE HAN PRESENTADO RESPUESTA INADECUADA A METOTREXATO EN COLOMBIA

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OBJECTIVOS: Estimar desde la perspectiva del sistema de salud colombiano el costo anual de tratamiento con tofacitinib comparado con los fármacos anti-reumáticos modificadores de la enfermedad (FARMEs) – biológicos disponibles en el plan de beneficios. **METODOLOGÍAS:** Un análisis de comparaciones indirectas, usando un método bayesiano, mostró que tofacitinib es una alternativa de similar efectividad y seguridad a la de los (FARMEs) – biológicos. Se realizó una minimización de costos. Los comparadores fueron: abatacept (750 mg cada 4 semanas), adalimumab (40 mg subcutáneo cada 2 semanas), certolizumab (400 mg cada 4 semanas), etanercept (50 mg semanal), golimumab (50 mg cada 4 semanas), infliximab (3 mg/kg semana 0, 2, 6 y cada 8

semanas), rituximab (1000 mg los días 0 y 15; se asumió reinfusión cada 6 meses - 1000 mg), tocilizumab (8 mg/kg al mes) y tofacitinib (5 mg dos veces al día). Para el estudio se siguieron las recomendaciones de la Guía Colombia para el manejo de Artritis Reumatoide. Se asumió un peso promedio de 70 kg. El horizonte temporal fue 1 año. Se incluyeron solo costos médicos directos. Los costos sin descuento, se expresaron en pesos colombianos de 2014. Los precios de los medicamentos se tomaron de la base de datos oficial (SISMED, reporte enero- junio de 2014) y el costo de administración de tarifarios nacionales. **RESULTADOS:** Los costos anuales para cada alternativa fueron: abatacept ($28.180.394), adalimumab ($25.477.144), certolizumab ($25.013.784), etanercept ($27.421.267), golimumab ($29.868.384), infliximab ($ 24.256.886), rituximab ($ 21.336.056), tocilizumab ($ 26.681.634) y tofacitinib ($ 23.020.381). El costo promedio anual de las alternativas disponibles en el plan de beneficios fue $26.159.779. **CONCLUSIONES:** El costo anual de tratamiento con tofacitinib, es un 12% inferior con respecto al costo promedio de tratamiento anual de las alternativas disponibles en plan de beneficios, lo que representa un ahorro promedio de $3.159.385 por paciente.

MUSCULAR-SKELETAL DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PMS10: APRESENTAÇÃO DO PROGRAMA DESFECHOS DE UM HOSPITAL PRIVADO DE SÃO PAULO, BRASIL

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OBJETIVOS: O programa Desfechos caracteriza-se como um centro de coleta de dados que tem como principal objetivo mensurar o desfecho clínico e qualidade de vida periódica de pacientes pós alta hospitalar. O programa trabalha em conjunto com os Programas Integrados na disponibilização de informações com foco nos indicadores de resultado. Este trabalho irá apresentar o Programa Desfechos e os dados coletados (jan/2011-jan/2015), em diversos períodos de seguimento pós alta hospitalar. **MÉTODOS:** Estudo transversal, retrospectivo, a partir da análise quantitativa dos dados. Neste estudo foram realizadas ligações telefônicas utilizando o instrumento EQ-5D para medir qualidade de vida. O método utilizado foi o Time Trade-Off (TTO). O estudo foi realizado no Hospital Israelita Albert Einstein (HIAE), um hospital geral, privado, de alta complexidade. **RESULTADOS:** Realizamos 16.479 ligações telefônicas e obtivemos 10.985 (67%) de contatos com sucesso. Na coleta dos dados de qualidade de vida, os pacientes apresentaram a média de TTO: 0,546 antes do procedimento ou alta hospitalar e após 6 meses, apresentou TTO:0,814. No follow up coletamos 268 (9%) informações de óbitos. Os principais motivos de censuras foram: insucesso após 4 tentativas (30%); dados cadastrais desatualizados (1%) e recusas (2%). **CONCLUSÕES:** É essencial que as organizações de saúde avaliem de maneira eficaz os desfechos clínicos e estado funcional de seus pacientes após alta hospitalar. Desta maneira será possível avaliar a qualidade da assistência prestada, identificar as reais necessidades de seus pacientes e assim, melhorar a utilização dos recursos e sistemas de saúde.

PMS11: SUBJECT RECOMMENDATIONS FOR IMPROVING THEIR COMPLIANCE AND ENGAGEMENT IN COMPLETING DAILY ELECTRONIC DIARIES IN OSTEOARTHRITIS CLINICAL TRIALS

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OBJECTIVES: Clinical trials for osteoarthritis (OA) are increasingly using electronic methods to collect patient-reported outcomes (ePRO). As use of this technology increases, it is important to consider patient preference in questionnaire design. The purpose of this study was to determine optimal use/compliance for subjects completing daily ePRO diaries on handheld devices. **METHODS:** 104 subjects with OA were surveyed in the US. Subjects were asked to assume that they were using a handheld electronic device to complete questionnaires in a clinical trial. Subjects were given examples and asked about their preferences for improving their compliance and engagement in the technology. **RESULTS:** Subjects were 37 to 90 years old and 58% female. 62% reported that they would like to see a “thank you” screen at the end of each questionnaire. 78% thought it would be helpful or necessary to regularly receive a graph to track and monitor their symptoms. 92% preferred to see their progress as they completed a questionnaire. 70% of subjects said they would like the first screen of the questionnaire on the device, summarizing questionnaire length/estimated completion time. Subjects were asked if being informed by the device that their compliance was below expectations would motivate them to complete a daily questionnaire. The majority of subjects (76-80%) indicated that this information would motivate them, 13-15% indicated this would have no impact on their motivation, and less than 9% indicated such messaging would be discouraging. **CONCLUSIONS:** Subjects with OA were motivated by knowing their compliance in completing a daily questionnaire. Specifically, subjects preferred a diary screen summarizing questionnaire length/completion time, tracking their progress through a questionnaire, and “thank you” messages upon questionnaire completion. Subjects were interested in tracking and monitoring their health status. Investigators should consider including these design elements for use with ePRO assessments in clinical trials.

PMS12: EVALUACION SOBRE MEDICAMENTOS Y ACTOS MEDICOS CUBIERTOS FINANCIERAMENTE POR RESOLUCION JUDICIAL- FNR

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Fondo Nacional de Recursos (FNR) creado por ley para asegurar el acceso de toda la población a un conjunto de prestaciones médicas de alta especialización e impacto económico. Basándose en la calidad, asegura la viabilidad económica de sus prestaciones. Adquiere especial relevancia el seguimiento de la situación de los pacientes que han recibido financiación del FNR para la realización de actos médicos o medicamentos fuera del listado de cobertura priorizada a su cargo, como consecuencia de una sentencia judicial

que impone al FNR dicha prestación. **OBJECTIVOS:** Analizar coberturas adjudicadas judicialmente. Determinar si corresponden a cobertura no priorizada. Verificar el cumplimiento de las sentencias de condena; el tiempo transcurrido entre la adjudicación y la cobertura; y la sobrevida de los mismos. **METODOLOGÍAS:** Estudio descriptivo a través de encuesta telefónica a los pacientes con cobertura judicialmente determinada, entre 2007- 2014. Sin criterios de exclusión. **RESULTADOS:** En el período se cubrieron 56 solicitudes, 5% no ubicados. 93% sector privado, 95% Medicamentos: Interferón Beta 35,7% (n= 20), Sorafenib 27.5% (21), Bevacizumab y Temozolamida 5.4% (3). Patologías Esclerosis Múltiple y Hepatocarcinoma 35.7% (20), tumores SNC 7.1% (4). La sobrevida de los pacientes fue de 70%. La mortalidad en Hepatocarcinomas fue 94.1% y la sobrevida de 8 meses. En los pacientes con EM fue de 4.34 años, no fallecidos. **CONCLUSIONES:** La totalidad de las solicitudes se encontraban fuera de la normativa del FNR, no contempladas por el FTM ni PIAS. La cobertura fue inmediata a la sentencia, cumpliendo los aspectos técnicos y médicos. Entrevistados mostraron interés y disponibilidad a participar en estudios de estas características. La experiencia demostró la pertinencia de incluir seguimiento periódico a pacientes cubiertos judicialmente.

PMS13: QUALITY OF LIFE IN PATIENTS AFTER TOTAL HIP REPLACEMENT

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OBJECTIVES: The current prevalence of Total Hip Replacement (THR) in adult patients in Slovakia ranges in about 5 200 cases per year with expenditures about 10.545.600 €. The THR has a great impact on the quality of life (QoL) and the physical ability too. Till now in the Slovak Republic was not realised the study like this one. **METHODS:** 118 patients, 59 men and 59 women, with THR were studied. The average age was 62,24 y., the average duration of illness was 7,75 y. and the average waiting time to surgery was 0,73 y. QoL and the taking care about himself (TCaH) was evaluated after THR on the numeric scale from 0 to 10 (0 for the worst, 10 for the best) and pain (0 for the best, 10 for the worst) by patients themselves. **RESULTS:** QoL has increased from 4,24 to 6,30 after THR. The ability to take care about himself has decreased from 6,38 to 3,45 after THR. Pain has decreased from 7,85 to 3,32 after THR, and after spa stay from 3,04 to 2,03. The loss of money in productive age patients was 216,63 €. The score of physical health by SF 36 questionnaire was 50,94 points and score of mental health was 65,41 points, the average score was 57,98 points. 35 patients from 45 patients were able to come back to work after THR. **CONCLUSIONS:** THR has a great impact on QoL, pain and on the TCaH too. There was not statistical difference between men and women in all evaluated parameters. The early/earlier made THR could have an important influence on better QoL and pain development. There is a good correlation between results from numeric scale and SF 36.

MUSCULAR-SKELETAL DISORDERS - Health Care Use & Policy Studies

PMS14: CARACTERIZACIÓN DE PACIENTES CON ENFERMEDAD OSTEOARTICULAR DESDE LA PERSPECTIVA DEL ASEGURAMIENTO EN COLOMBIA

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OBJECTIVOS: analizar el comportamiento de pacientes con enfermedad crónica osteoarticular afiliados a una aseguradora colombiana. **METODOLOGÍAS:** a partir de la información de usos y consumos de una aseguradora colombiana para el año 2013, se identificaron todos los pacientes que habían sido atendidos al menos tres veces por servicios ambulatorios o con un egreso hospitalario con diagnósticos asociados a esta enfermedad, que incluyen diferentes tipos de artritis y osteoartrosis, y que fueron identificados de acuerdo con los códigos de diagnóstico. Los pacientes fueron analizados en función de sus variables demográficas, uso de servicios, costos y comorbilidades. **RESULTADOS:** se estimó una prevalencia del 3,75% de enfermedad osteoarticular sobre la población total con una edad promedio de 50,2 años, siendo el 58,93% mujeres. Los pacientes tienen un costo promedio anual en servicios con cargo al plan obligatorio de salud de $1.369.493,20 pesos colombianos, que en total por la carga de pacientes significa el 12,28% del costo total para el asegurador. El 19,39% de estos presenta comorbilidades, siendo diabetes, enfermedad cardiovascular y enfermedades digestivas crónicas las más frecuentes. Además, se estimó que el costo promedio aumenta 1,5 veces a medida que se asocia una comorbilidad adicional. **CONCLUSIONES:** el grupo de riesgo por enfermedad osteoarticular se convierte en un grupo de interés para la gestión del aseguramiento, en especial por la cantidad de pacientes identificados, lo que genera una alta carga de enfermedad. En este caso, esta carga se presenta especialmente en mujeres adultas, y sus costos se potencian con comorbilidades, lo cual hace más importante el control y gestión de la progresión.

PMS15: PATTERNS OF CARE WITH BIOLOGICAL DRUGS FOR ANKYLOSING SPONDYLITIS: REAL-WORLD DATA FROM THE PRIVATE HEALTHCARE MARKET IN BRAZIL

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OBJECTIVES: Ankylosing spondylitis (AS) is a progressive, incurable rheumatologic disease with worldwide prevalence of 0.1-0.5%. Since January 2012, the Brazilian Agency for Supplementary Healthcare (ANS-Agência Nacional de Saúde Suplementar) declared the coverage of intravenous biological drugs (BD) mandatory for patients with AS, rheumatoid arthritis, psoriatic arthritis and Crohn's disease in the private healthcare system (PHS). This study presents real-word data on the patterns-of-care for AS in Brazilian PHS. **METHODS:** We retrieved all requests of BD for patients with AS submitted between January/2012-January/2015 on Evidências-Kantar Health private market administrative claims database. After patient de-identification, data on diagnosis, type of drug, and line-of-treatment were collected. **RESULTS:** BD was requested for 46 patients, 16 males (34.8%) and 30 females (65.2%), mean age of 43.7

years. Drugs requested were: infliximab (39.1%), adalimumab (21.7%), golimumab (19.6%), etanercept (17.4%) and rituximab (2.2%). Most patients (73.9%) were on first-line treatment with BD, 23.9% on second and 2.2% on third-line. Reasons for change in medication were: unsatisfactory response (75%) and adverse events (25%). Based on available information, diagnosis of AS couldn't be confirmed for all patients. For 52.2% AS was the most likely diagnosis, other possible diagnoses were: primary sacroiliitis (17.4%), degenerative spine disease (4.3%), unspecific lumbar pain (4.3%), enteropathic arthritis (4.3%), Reiter's syndrome (2.2%) and seronegative arthropathy (2.2%). In 13% of the cases, lack of information precluded diagnosis. In 4 of 16 cases in which AS was not the most likely diagnosis, patients were already on 2nd or 3rdline treatments due to unsatisfactory response. **CONCLUSIONS:** Choice of BD followed international guidelines for AS. However, almost half the patients could not have diagnosis of AS confirmed, even tough some were already on 2nd or 3rd line therapy with BD. PHS must emphasize the correct use of diagnostic criteria before patients are put on unnecessary treatment with BD.

PMS16: RACIAL DISPARITIES IN TOTAL ANKLE ARTHROPLASTY UTILIZATION AND OUTCOMES

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OBJECTIVES: There are no studies to our knowledge assessing, whether there are racial disparities related to total ankle arthroplasty (TAA) utilization and outcomes. Our objective was to study the racial disparities in total ankle arthroplasty (TAA) utilization and outcomes. **METHODS:** We used the Nationwide Inpatient Sample (NIS) to study the time-trends. Race was categorized as White and Black. Utilization rates were calculated for the U.S. general population per 100,000. Hospital length of stay, discharge disposition and mortality after TAA were assessed. We used the Cochran Armitage trend test to assess time-trends from 1998 to 2011 and chi-square test to compare TAA utilization. We used analysis of variance or chi-squared test to compare the characteristics of Whites and Blacks undergoing TAA and logistic regression to compare mortality, length of stay and discharge to home vs medical facility. **RESULTS:** The mean ages for Whites undergoing TAA were 62 years and for Blacks was 52 years. Significant racial disparities were noted in TAA utilization rates (/100,000) in 1998, 0.14 in Whites vs. 0.07 in Blacks ($p<0.0001$; 2-fold) and in 2011, 1.17 in Whites vs. 0.33 in Blacks ($p<0.0001$; 4-fold). Racial disparities in TAA utilization increased significantly from 1998 to 2011 ($p<0.0001$). There was a trend towards statistical significance in the length of hospital stay in Blacks vs. Whites (52.9% vs. 44.3% with length of hospital stay higher than the median; $p=0.08$). Differences in the proportion discharged to an inpatient medical facility after TAA, 16% Blacks vs. 13% Whites, were not significant ($p=0.47$) **CONCLUSIONS:** This study demonstrated significant racial disparities with lower TAA utilization and suboptimal outcomes in Blacks compared to Whites. Further studies are needed to understand the mediators of these disparities and to assess whether these mediators can be targeted to reduce racial disparities in TAA.

PMS17: PREVALÊNCIA DA ESPONDILITE ANQUILOSANTE: UMA REVISÃO SISTEMÁTICA

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OBJETIVOS: estimar a prevalência da espondilite anquilosante para subsidiar para avaliações econômicas sobre a doença. **MÉTODOS:** realizou-se uma revisão sistemática com estratégia de busca nas bases de dados Medline, via PUBMED, e The Cochrane Library no mês de março de 2014. A leitura dos títulos foi realizada em pares e as divergências dirimidas por consenso. Não foram aplicadas restrições quanto a idiomas e datas, sendo excluídos estudos que não eram transversais e àqueles que não apresentavam desfechos relacionados à prevalência da doença. A extração dos dados foi realizada por meio de formulário específico e revisada por um par antes de sua inclusão. A análise estatística foi realizada com auxílio do programa R 3.1.0. e para tal foi desenvolvido um gráfico de forest plot. **RESULTADOS:** foram encontrados 1.646, que após leitura de títulos foram selecionados 146, dos resumos 26 e textos completos 14 estudos, sendo todos realizados fora do Brasil. A maioria desses trabalhos (85,7%) foi desenvolvido em ambiente hospitalar. A amostra total foi de 266.194 participantes e a média ponderada obtida da prevalência foi de 0,5649% ($p< 0.001$; IC: 95%), variando de 0,08% a 1,4%. Vale destacar que os métodos utilizados para coletar a prevalência, assim como, os critérios de classificação da doença, foram bastante variados. Devido a essa grande heterogeneidade entre os estudos adotou-se, na análise estatística, a medida de efeito aleatório por ser mais apropriada e conservadora para esses casos. **CONCLUSÕES:** De acordo com dados do estudo foi identificada elevada prevalência e dispersão da doença na população mundial, que impactam os orçamentos dos sistemas públicos de saúde. Considerando a importância da doença, e o impacto orçamentário de novos medicamentos são necessários mais estudos, especialmente no Brasil e na América do Sul uma vez que não foi detectado nenhum artigo que aborde o tema nesses países.

PMS18: EFFECT OF EDUCATIONAL INTERVENTION ON OSTEOPOROSIS KNOWLEDGE AMONG UNIVERSITY FEMALE STUDENTS IN QUETTA, PAKISTAN

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OBJECTIVES: The study intended to assess the impact of educational intervention on knowledge of osteoporosis among female university students of Quetta. **METHODS:** This interventional study was conducted on female university students by using convenience sampling technique. A total of 163 female students were enrolled for the study, these are those female students who did not heard about the disease named as osteoporosis. These subjects were provided with a self-explanatory brochure that contain basic information regarding osteoporosis. The intervention was completely theoretical in nature. After two days interval participants were contacted again and asked to complete a pre-validated questionnaire containing 20 questions related to osteoporosis knowledge.

Descriptive analysis was used to demonstrate the demographic characteristics of the study population. Inferential statistics (Mann-Whitney U test and Kruskal Wallis tests and Wilcoxon mean rank test, $p < 0.05$) were used to assess the significance among study variables and to assess the impact of educational intervention on knowledge. **RESULTS:** Average score of knowledge was 14.18±2.7 (20 max). The educational intervention had a significant effect on knowledge scores of the respondents (Wilcoxon rank test $p < 0.005$) (considering the pre-intervention knowledge score as zero). Certain demographic characteristics (academic degree and living status) does affect knowledge scores of the study respondents. **CONCLUSIONS:**Although adequate improvement of osteoporosis knowledge scores were reported after educational intervention, yet efforts should be made to bring change in the attitudes and practices of the female student by the help of intensive educational programs based on specified behavioral learning theories for better disease knowledge and prevention.

PMS19: DESARROLLO DE UNA GUIA DE INTERVENCION PSICOLOGICA PARA ARTRITIS REUMATOIDE EN COLOMBIA

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OBJECTIVOS: El manejo de la artritis reumatoide (AR) implica grandes retos para los sistemas de salud, especialmente en países en vía de desarrollo, ya que exige la implementación de programas de atención integral para reducir el desgaste gradual, la complicación de síntomas y el impacto económico tanto a nivel familiar como del Estado. El objetivo del estudio fue construir una guía de intervención psicológica basada en la evidencia que facilite el ejercicio de psicólogos en la atención integral de pacientes diagnosticados con AR en Colombia. **METODOLOGÍAS:** Se realizó una revisión sistemática de literatura y se formularon recomendaciones para el abordaje de factores psicológicos y sociales de la enfermedad a partir de la evidencia empírica hallada sobre la intervención psicológica para pacientes diagnosticados con AR. La inclusión de tales recomendaciones en la guía se logró a través de reuniones de consenso no estructurado con el grupo desarrollador; también fueron consideradas en el proceso las opiniones de expertos y de pacientes. Las recomendaciones fueron calificadas según los lineamientos de la Scottish Intercollegiate Guidelines Network (SIGN). **RESULTADOS:** Las prácticas recomendadas en esta guía se consolidaron en siete apartados: 1) psico-educación; 2) apoyo social; 3) estado de ánimo; 4) adherencia al tratamiento; 5) autoeficacia; 6) autocontrol - automanejo; y 7) manejo de dolor. La guía se encuentra lista para iniciar su validación e implementación en el ámbito clínico. **CONCLUSIONES:** Por primera vez, Colombia cuenta con una guía de intervención psicológica basada en la evidencia para la atención de pacientes con AR y el propósito final es que sea adoptada por el Sistema Nacional de Salud. El siguiente paso en el proceso de construcción de esta guía es su validación con expertos clínicos, pacientes, el Ministerio de Salud y otros actores del sistema de salud colombiano para hacer posible su diseminación y puesta en marcha.

NEUROLOGICAL DISORDERS - Clinical Outcomes Studies

PND1: RATES OF ADVERSE EVENTS AND MULTIPLE SCLEROSIS RELAPSES BEFORE AND AFTER INTRODUCTION OF A PURPORTED GENERIC GLATIRAMER ACETATE IN MEXICO: RESULTS FROM A LARGE PATIENT SUPPORT PROGRAM IN MEXICO

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OBJECTIVES: To assess adverse events (AEs) and relapse rates in multiple sclerosis (MS) patients on Glatiramer Acetate (GA) treatment before and after the introduction of a purported generic GA (pgGA) in Mexico.**METHODS:** A pgGA was introduced in Mexico in January 2013. The dispensation decision of branded versus pgGA was made by each Pharmacy based on a predetermined national quota (40% pgGA in 2013, 50% in 2014) and availability, allowing the same patient to receive both treatments over time. Patient-reported data on AEs, relapses and pgGA or branded GA use were collected through branded GA's Patient Support Program. Differences in outcomes during 2012 when only branded GA was available, and during February–May of 2014 when mostly branded GA was dispensed (due to pgGA hold) were compared with outcomes in 2013 and during February–May in 2013, respectively (when both products were dispensed). **RESULTS:** The total number of MS patients in the program during 2012, 2013 and 2014 were 1618, 1552, and 1755, respectively. The total number of AEs and relapses reported in 2013 were significantly higher ($P<0.05$) than 2012. The total number of AEs and relapses in each month in 2013 (except in 1) was higher (AEs – 11 to 92, relapses – 1 to 13) than each of the corresponding 2012 months (AEs – 4 to 26, relapses – 0 to 2). Comparing number of relapses adjusted by number of patients during February–May of 2014 to the same period in 2013, showed a decrease in relapses in this period in 2014 vs. 2013 ($P<0.035$). Further research is needed to fully elucidate the underlying causes for the marked differences reported. **CONCLUSIONS:** The observed increase in AEs and relapses in MS patients in Mexico raise questions about the interchangeability and comparability of pgGA to branded GA on treatment safety and efficacy.

NEUROLOGICAL DISORDERS - Cost Studies

PND2: ESTIMATING THE OPPORTUNITY COSTS OF TREATING MENINGITIS IN SELECTED COUNTRIES OF LATIN AMERICA

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OBJECTIVES: Neisseria meningitidis is a leading cause of bacterial meningitis and septicemia in infants, young children and adolescents, with considerable morbidity and mortality and health system costs. We synthesized available data to estimate the cost associated with meningococcal disease in Brazil, Chile, Colombia, and Panama from the societal perspective. **METHODS:** National treatment guidelines were considered to establish treatment practices of meningococcal disease in each country. A combination of retrospective data collection techniques was used in the study, including structured interviews to physicians and primary caregivers, and review of patient medical records, and medical registers of hospitals, health centers and laboratory centers. All cost components were based on 2014 prices and were converted to US dollars using the official exchange rate. **RESULTS:** The economics of meningococcal disease is complex and multifaceted. The country that reported the highest treatment cost of meningococcal disease was Panama, taking up 62% of the total cost across the three countries. This was followed by Colombia and Chile with both taking up to 22% and 16% of the total costs of meningococcal disease, respectively. Direct medical costs and, more specifically, hospital care costs took up the biggest proportion of the total cost of meningococcal disease in all three countries, ranging from 63% to 72%, reflecting on the level of disease severity. Loss of productivity contributed up to 2.4% of the total cost for meningococcal disease in Chile, in contrast to 1.7% and 1.3% of the total cost estimated in Colombia and Panama, respectively. **CONCLUSIONS:** Findings of this study underscore the importance of meningococcal disease in the region in terms of cost. Future research should focus on more detailed investigation of costs of meningococcal cases and outbreaks from the societal perspective.

PND3: HEALTHCARE COSTS ASSOCIATED WITH PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS

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OBJECTIVES: The objective of this study is to assess the health care costs associated with Disease Modifying Therapies (DMTs) for patients diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS). **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for at least a year. Descriptive statistics were performed on the data where appropriate. **RESULTS:** There were a total of 741,065 patients that met the study inclusion criteria. Patients on average were charged $4161.40 ± 2817.59 for their DMTs treatment during the study period. However, the allowed amount by the health plan was $3681.33 ± 1847.82 and the actual paid amount was $3580.63 ± 1859.14. On average, patient's deductible was $21.72 ± 228.50 and patient co-payment was $82.94 ± 285.47. For patients whose prescription was on their health plans formulary paid on average higher costs compared to patients who were not (paid amount $3595 vs $3370; allowed amount $3686 vs 3493). Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3677 vs $3689; paid amount $3576 vs $3590; deductible $21 vs $23; co-payment $82 vs $84). Patients who received treatment in the Midwest region of the USA had a higher costs compared to east, south, and west regions (paid amount $3672 vs $3596 vs $3468 vs $3461). **CONCLUSIONS:** The mean cost of treatment with any DMTs for the treatment of RRMS patients is $4161. The drug formulary status did not play a role in determining overall healthcare costs. Females and patients from Midwest region generally had higher costs.

PND4: HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH PEDIATRIC PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS

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OBJECTIVES: The objective of this study is to assess the health care resource utilization and costs associated with Disease Modifying Therapies (DMTs) for pediatric patients diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS). **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≤ 17 years of age and continuously enrolled in the same health plan at least for a year. **RESULTS:** There were a total of 359 patients that met the study inclusion criteria and they were on the following DMTs: Gilenya (N=7 (1.9%)), Extavia (N=17 (4.7%)), Rebif (N=32 (8.9%)), Copaxone (N=117 (32.6%)), Avonex (N=108 (30.1%)), and Betaseron (N=78 (21.7%)). Patients on average were charged $3750.58 ± 1438.26 for their DMTs treatment during the study period. However, the allowed amount by the health plan was $3547.05 ± 1380.56 and the actual paid amount was $3355.10 ± 1510.97. On average, patient's deductible was $56.47 ± 401.03 and patient co-payment was $144.57 ± 371.65. For patients whose prescription was on their health plans formulary paid on average higher costs compared to patients who were not (paid amount $3406 vs $3223; allowed amount $3641 vs $3309). Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3311 vs $3924; paid amount $3126 vs $3721; deductible $2.5 vs $155; co-payment $193 vs $66). Patients who received treatment in the east region of the USA had a higher costs compared to Midwest, south, and west regions (paid amount $3764 vs $3425 vs $3504 vs $3243). **CONCLUSIONS:** Costs were high for males and formulary status of the DMTs did not have an impact on the amount paid by the patients.

PND5: HEATLH CARE COSTS ASSOCIATED WITH PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS TAKING ONCE DAILY TERIFLUNOMIDE TABLETS IN THE UNITED STATES

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OBJECTIVES: The objective of this study is to assess the health care costs associated with Teriflunomide treatment for patients diagnosed with relapsing remitting multiple sclerosis (RRMS) in 2012 in the US **METHODS:**A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed Terfilunomide between September 2012 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were a total of 157 patients that met the study inclusion criteria. Patients on average were charged $3816.90 ± 1702.83 for their treatment with Teriflunomide during the study period. However, the allowed amount by the health plan was $3635.28 ± 1314.56 and the actual paid amount was $3552.75 ± 1320.71. On average, patient's deductible was $12.81 ± 96.33 and patient co-payment was $84.66 ± 184.95. For patients whose prescription was on their health plans formulary were charged less but paid more on the deductible and co-payment compared to patients who were not (charged amount $3646 vs $3829; deductible $14 vs $11; co-payment $122 vs $63) on the formulary. Even though most of the patients were females, but they had overall lower costs compared to males (amount allowed $3475 vs $4057; paid amount $3391 vs $3980). Patients who received treatment in the southern region of the USA had a higher costs compared to east, Midwest, and west regions (paid amount $3720 vs $3592 vs $3673 vs $2613). **CONCLUSIONS:** The cost of Teriflunomide treatment for RRMS patients is higher and costing the health plan around $3552 per month. The cost of the drug treatment was higher in southern of the USA and males were paying more in general.

PND6: COST-UTILITY ANALYSIS OF NATALIZUMAB AS FIRST-LINE TREATMENT OF HIGHLY-ACTIVE RELAPSING-REMITTING MULTIPLE SCLEROSIS IN THE BRAZILIAN PUBLIC HEALTHCARE SYSTEM

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OBJECTIVES: To assess the cost-effectiveness of natalizumab (NAT) as first-line treatment of Highly-Active Relapsing-Remitting Multiple Sclerosis (HARRMS) versus pooled interferon-beta (IFN) and glatiramer acetate (GA) from the Brazilian Public Healthcare (SUS) perspective. Natalizumab is currently only reimbursed for RRMS patients that failed therapy with IFN and GA. Currently, no guidance exist for patients with HARRMS in Brazil. **METHODS:** A microsimulation model was developed with yearly cycles over a 20-year time horizon. Four different treatment sequences are included in the model: T1=NAT-IFN-GA, T2=NAT-GA-IFN, T3=IFN-GA-NAT and T4=GA-IFN-NAT, allowing treatment failures [i.e., >=1-point increase in the Expanded Disability Status Scale (EDSS)] to alternate therapies. Patients may experience EDSS progression, relapses, remain stable, discontinue treatment, or die. Natural history was parameterized from the 2005 UK MS Survey. Efficacy, utilities and safety/discontinuation data were derived from respective pivotal trials. HARRMS was defined as >2 disabling relapses in previous year and >1 gadolinium-enhancing lesions or a significant increase in T2 lesions. Direct costs were from government reimbursement lists (i.e., DATASUS, BPS, SIGTAP), discounted at 5% yearly, and reported in Brazilian currency (1BRL=0.35USD). Consequences were assessed in quality adjusted life years (QALY). Monte-Carlo first-order was used. **RESULTS:** Natalizumab as first-line for HARRMS (sequences T1 and T2) was considered cost-effective in comparison to sequences T3 and T4 (standard practice). Total costs (K=thousands) and QALYs for each treatment arm were: T4=BRL187K/5.43QALY, T3=BRL203K/5.41QALY, T2=BRL227K/7.02QALY and T1=BRL228K/7.01QALY. The incremental cost-effectiveness ratio (ICER) for T1 and T2 relative to the least costly sequence (T4) were BRL25,258/QALY and BRL26,324/QALY respectively, and considered acceptable assuming a threshold of 3x the national gross domestic product (GDP) per capita (~BRL70,000/QALY). **CONCLUSIONS:** Since patients with HARRMS experience higher relapse rates and faster disability progression than the general RRMS population, natalizumab as first-line option is cost-effective and brings additional benefits to Brazilian patients.

PND7: SOCIOECONOMIC IMPACT OF IMMUNOGLOBULIN REPLACEMENT THERAPY FOR PRIMARY IMMUNODEFICIENCY PATIENTS ON THE HEALTH PUBLIC SYSTEM IN BRAZIL: A SINGLE CENTER STUDY

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OBJECTIVES: Evaluate the costs and socioeconomic aspects of Immunoglobulin replacement therapy in patients with Primary Immunodeficiency (PID) treated at a Public health clinic in Brazil. **METHODS:** Transversal study with 42 patients who are being treated with intravenous immunoglobulin (IVIG) at the Division of Allergy Clinical Immunology and Rheumatology, Federal University Federal of São Paulo. Costs data were obtained from patient charts and Ministry of Health public reimbursement prices during the year of 2014. Socioeconomic data were obtained from a questionnaire answered by patients or their caregivers. A cost-minimization modeling was performed comparing intravenous and subcutaneous routes. **RESULTS:** Median patient age was 17 years old (6 months - 58 years) and 71% were male. Mean IVIG dose was 639 mg/kg (400-1000 mg) under a 4 weeks regimen. Seventy-one percent of patients used public transportation, with mean daily expenditure (MDE) of R$ 19 and median duration of locomotion (MDL) of 4h (2:00-9:30); 25% used their own vehicle, with MDE of R$ 39 (0-100.00) and MDL of 3:00h (0:45 to 4:45); 4% utilized an ambulance for transportation, with a MDL of 9:45h (5:00-14:30). Mean direct medical costs (drugs, infusion sets and health professional and administrative salaries) were R$ 2,298/patient/year for intravenous administration. Thirteen school/ workdays were lost per year in this group, with a mean impact of RS 796/year/patient. Total cost (mean) of IVIG replacement was R$ 34,169/patient/year while for subcutaneous route the cost calculated was R$ 32,245year (an R$ 1.833 difference). A 3 year cost minimization modeling comparing intravenous to subcutaneous route showed an average difference of R$ 1,128 per patient/year favoring the subcutaneous route. **CONCLUSIONS:** This is first study

evaluating the cost of immunoglobulin replacement therapy in PID patients in Brazil. The cost-minimization analysis showed that the choice of subcutaneous route could bring benefits for the Public Health System.

PND8: AN ANALYSIS OF MEDICINE PROCUREMENT FOR ALZHEIMER'S DISEASE IN BRAZIL FROM FEDERAL PURCHASES

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OBJECTIVES: To describe the profile of medicines procurement for Alzheimer's disease (AD) in a Brazilian federal database. **METHODS:** This study investigated procurement of medicines for AD in the Sistema Integrado de Administração de Serviços Gerais (SIASG). A profile of purchases, expenditures and prices from 2008 to 2013 was drawn. The following medicines used for treatment of AD — donepezil, galantamine, rivastigmine and memantine — in several dosage forms were investigated, including those not present in the Brazilian guidelines (PCDT). The extracted information included date of purchase; quantity of units purchased; unit price; responsible body; form of acquisition (tendering or waivered emergency purchase) and justification for purchase (regular use or health litigation). Unit prices were deflated to December 2013 by the IPCA (Brazilian Pricing Index) to allow comparability and evaluation of trends. **RESULTS:** More than 47 million units of medicines for AD were bought and expenditures reached 90.1 million reais, with rivastigmine purchases in the forefront. Medicines not present in the guidelines represented 3% of expenditures and purchases associated to health litigation were negligible. The Ministry of Defense was the largest buyer of medicines not included in the guidelines. Over the entire period, a reduction of corrected weighted average prices of PCDT and non-PCDT medicines was observed. **CONCLUSIONS:** We noted a significant increase in the amount of medicine purchases over time. Updates on PCDT, changes in medicines financing and procurement, and the establishment of Productive Development Partnerships may have contributed with the scale-up of AD treatment availability. The reduction of lawsuits demanding medicines suggests normalization of medicine procurement mechanisms for these drugs. The resources consumed with non-PCDT medicines increased in the period.

PND9: A SYSTEMATIC LITERATURE REVIEW OF GLOBAL ECONOMIC EVALUATIONS OF RASAGILINE FOR PARKINSON'S DISEASE

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OBJECTIVES: This systematic review is conducted to investigate the impact of rasagiline on economics of care for patients with PD. **METHODS:** A literature search using the online version of Index Medicus identified relevant publications, abstracts, technology assessments of rasagiline using search terms; title: rasagiline and Parkinson* AND economic OR budget OR cost; language: English; publication dates 01/01/2009 to 01/30/2015. In addition, websites were searched for health technology assessments. **RESULTS:** A total of 15 studies (7 cost models, 1 economic database analysis and 7 resource utilization studies) were eligible for inclusion. The four US based cost effectiveness models suggest that initiating treatment (tx) with rasagiline had lower costs ($1600) and higher expected QALYs (0.0608) over 5 years compared with ropinirole XL; total medical and pharmacy costs were $115,653 less per patient for rasagiline vs standard of care over 25 years. In addition, initiating tx with rasagiline was cost effective relative to generic ropinirole (CE ratio of $25,939 per QALY); and a US cost-utility analysis showed adjunctive use of rasagiline with levodopa and carbidopa/levodopa/entacapone were both dominant strategies over levodopa monotherapy. In a Mexico-based model using a 5-year time horizon the cost per QALY for rasagiline was $33,400 (Mexico peso). Medication and adverse event costs were also evaluated in a Russian model. Observational study results (8) were based on US, UK and Croatian data. US studies results comparing rasagiline to selegiline show fewer hospitalizations (1.119 vs 2.113, p=0.013) shorter length of stay (2.762 vs 5.556, p=0.014) and lower likelihood of emergency department visits (OR=0.791, 95% CI 0.677 to 0.926) with rasagiline. **CONCLUSIONS:** Rasagiline was found cost effective across multiple countries compared with commonly used PD medications. The beneficial impact of rasagiline on resource utilization in the observational studies highlights the real world potential of rasagiline to result in economic benefits to healthcare systems.

NEUROLOGICAL DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PND10: ADHERENCE AND PERSISTENCE AMONG PATIENTS TREATED WITH FIRST-LINE THERAPIES FOR RELAPSING-REMITTING MULTIPLE SCLEROSIS IN BRAZIL

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OBJECTIVES: To estimate the levels of adherence and persistence of patients with Relapsing-Remitting Multiple Sclerosis (RRMS) and treated with platform therapies in Brazil. **METHODS:** DATASUS, a nation-wide, anonymized, healthcare claims database was used as primary data source. Naïve patients starting on one of the platform therapies for RRMS, between January and June 2013 were followed for at least 13 months (up to 18), until September 2014) after the first entry in DATASUS (considered for this analysis as treatment initiation). Therapies included intramuscular (IM) interferon beta-1a (IFNβ-1a), subcutaneous (SC) IFNβ-1a, IFNβ-1b, and glatiramer acetate (GA).Adherence was measured as medication possession ratio (MPR), calculated as the proportion of months patients possessed their therapies independently of drug change until the end of the analyzed period, where MPR>0.80 was considered adherent. Persistence was time in months from initiation date until a 30-day gap in therapy or the last claim during follow-up.

Chi-square assessed the association between treatments and time on-therapy. Median difference between MPR was assessed through Kruskal-Wallis' Method. Analyses were performed using R, version 3.1. **RESULTS:** Total number of patients was 1,052: IM-IFNβ-1a (N=351, 33.4%); IFNβ-1b (N=145, 13.8%); GA (N=264, 25.1%); and SC-IFNβ-1a (N=292, 27.8%). MPR>0.80 was significantly higher (p<0.001) in the IM-IFNβ-1a group (71.8%) versus IFNβ-1b (58.6%), GA (65.5%), and SC-IFNβ-1a (63.7%). There were no consistent differences in persistence between the groups. **CONCLUSIONS:** While there are limitations in measuring adherence even in controlled trials, MPR seems to be appropriate in real life scenario. Patients initiating treatment with IM-IFNβ-1a showed better adherence than those initiating with other platform therapies for RRMS in Brazil. The literature reports similar efficacy and safety profile among platform therapies, however, they differ in terms of administration route and dose scheduling. Better adherence results for IM-IFNβ-1a may be associated with dosing regimen and convenient administration from an auto-injector device.

NEUROLOGICAL DISORDERS - Health Care Use & Policy Studies

PND11: NATIONAL ESTIMATES OF PREVALENCE AND PATTERNS OF PSYCHOTROPIC POLYPHARMACY AMONG ELDERLY INDIVIDUALS WITH PARKINSON'S DISEASE IN NURSING HOME AND HOME HEALTHCARE SETTINGS IN THE UNITED STATES

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OBJECTIVES: Some elderly individuals with Parkinson's disease (PD) may suffer from more than one psychiatric comorbidity, which necessitates the use of concurrent psychotropic medications. To the best of the author's knowledge there are no nationally representative estimates of psychotropic polypharmacy among elderly individuals with PD in the United States. Therefore, the primary objective of this study was to examine the prevalence and patterns of psychotropic polypharmacy among elderly individuals with PD. **METHODS:** A retrospective, cross-sectional study design with 2004 National Nursing Home Survey (NNHS) and 2007 National Home and Hospice Care Survey (NHHCS) data was used. The analytic sample included elderly (age ≥ 65 years) individuals with PD (identified by ICD-9-CM code of 332.xx). Antidepressants, antipsychotics, sedative/hypnotics, and anti-anxiety medications constituted the psychotropic medication classes. Concurrent use of two or more psychotropic medications was classified as psychotropic polypharmacy. National estimates of psychotropic medication use were obtained by using SAS survey procedures. **RESULTS:** National estimate of approximately 93,648 [95% Confidence Interval (CI), 86535 – 100,761] and 37,439 (95% CI, 25,910 – 48,968) elderly individuals with PD resided in nursing homes and home health settings respectively. Among elderly nursing home residents with PD, the nationally representative prevalence of psychotropic polypharmacy was 26.28% (95% CI, 22.81% – 29.75%), whereas, it was 21.36% (95% CI, 8.12% – 34.6%) in the home health setting. Use of antidepressant medications constituted the majority of the psychotropic medication use among both nursing home (48.91%, 95% CI, 44.9% – 52.8%) and home health (40.98%, 95% CI, 25.37% - 56.61%) residents with PD. Nearly one-third (31.26%, 95% CI, 27.6% - 34.9%) nursing home residents with PD were prescribed antipsychotic medications among whom less than one-fourth had a documented psychotic diagnosis. **CONCLUSIONS:** These findings underscore the importance of evidence-based prescribing when psychotropic medications are used in elderly individuals with PD to reduce unnecessary polypharmacy.

PND12: CHARACTERISTICS OF PATIENTS WITH RELAPSING REMITTING MULTIPLE SCLEROSIS TAKING ONCE DAILY TERIFLUNOMIDE TABLETS IN THE UNITED STATES

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OBJECTIVES: Teriflunomide oral tablets were approved in the United States (US) in September 2012 for the treatment of relapsing remitting multiple sclerosis (RRMS). The objective of this study is to assess the characteristics of RRMS patients taking Teriflunomide tablets in 2012 in the US. **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed Terfilunomide between September 2012 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for a year. Descriptive statistics and chi-square tests were performed on the data and statistical significance level was set a priori at 0.05. **RESULTS:** There were a total of 157 patients that met the study inclusion criteria. Of these, 114 (72.6%) were females, mean age was 50.9±9.7 years, and females were older than males (51.4 vs 49.5 years) with no statistical significance different between them. Thirty three percentage of the patients were from Midwest, 30.6% were from East, 26.1% from south and 10.2% from West of the USA. Twenty eight percentage of the patient's prescription was under their health plan formulary and received an average of supply of 29.4 ± 8.8 days. Majority (61.1%) of the patients was under group coverage and 55.4% of patients were diagnosed with having mental health problems. Males enrolled continuously (60.21 ±21.8 vs 52.5 ± 28.9 months) much longer than females in the same health plan. But, females had a higher number of total claims (514.9 ± 443 vs 391.4 ± 307.6) during the enrollment period. **CONCLUSIONS:** Majority of the patients taking Terfilunomide was females and had more number of claims related to MS than males. And, majority of the patients were dispensed Terfilunomide for only one month supply.

PND13: COSTO EFECTIVIDAD DE LA TERAPIA INMUNOMODULADORA EN ESCLEROSIS MULTIPLE TIPO RECAÍDA REMISION: BUSQUEDA SISTEMÁTICA DE LA LITERATURA

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OBJECTIVOS: Llevar a cabo una revisión de la evidencia disponible de costo-efectividad de la terapia inmunomoduladora con

medicamentos modificadores de la enfermedad aprobados en Colombia para el tratamiento de la Esclerosis Múltiple (EM) tipo recaída remisión. **METODOLOGÍAS:** Búsqueda sistemática de evaluaciones económicas en las bases de datos PUBMED y EMBASE a través de una estrategia de búsqueda estructurada en pacientes adultos con diagnóstico confirmado de esclerosis múltiple tipo recaída remisión bajo tratamiento con IFN B, Acetato de Glatirámero, Natalizumab y/o fingolimod. Se incluyeron estudios de costo-efectividad y/o costo-utilidad y se excluyeron estudios de análisis de impacto presupuestal y de costo de la enfermedad. Se llevó a cabo la evaluación de la calidad de los estudios mediante la herramienta Quality of Health Economics Studies (QHES) **RESULTADOS:** Se analizaron 30 estudios identificados que contenían los criterios de inclusión preestablecidos. El 83% fueron desarrollados en Estados Unidos y Europa. El 90% de los estudios publicados corresponde a países desarrollados y el 10% a países en vía de desarrollo. Los principales resultados en salud fueron Calidad de Vida, número de recaídas evitadas y años libres de recaídas. Siendo la EM una enfermedad crónica es necesario realizar análisis económicos a largo plazo, que den cuenta del impacto de esta enfermedad en los sistemas de salud, sin embargo sólo el 53% de los estudios identificados tienen un horizonte temporal mayor o igual a 10 años. En relación con la evaluación de la calidad de los estudios con QHES, sólo el 43% tuvo ponderación de buena calidad. **CONCLUSIONES:** Es necesario promover la realización de evaluaciones económicas de EM en América Latina que den cuenta del contexto particular pues a pesar de ser una enfermedad de baja prevalencia es de alto costo. Se deben incluir resultados primarios en este tipo de estudios así como hacer estimaciones del impacto a largo plazo.

PND14: DESCRIPTIVE EVALAUTION OF CHARACTERISTICS OF PATIENTS DIAGNOSED WITH RELAPSING REMITTING MULTIPLE SCLEROSIS AND TAKING DISEASE MODIFYING AGENTS

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OBJECTIVES: The objective of this study is to descriptively evaluate the characteristics of patients receiving disease modifying therapies (DMTs) for the treatment of Relapsing Remitting Multiple Sclerosis (RRMS) in the US. **METHODS:** A large US administrative retrospective claims database was used to identify patients diagnosed with RRMS and were prescribed DMTs between January 2010 to December 2012 were included in the study. All patients were ≥ 18 years of age and continuously enrolled in the same health plan for a year. Descriptive statistics and chi-square tests were performed on the data. **RESULTS:** There were 741,065 patients that met the study criteria. And, all of these patients were on any of one of the following DMTs: Gilenya (N=28509 (3.8%)), Extavia (N=3461 (0.5%)), Tysabri (N=7915 (1.1%)), Rebif (N=141373 (19.1%)), Copaxone (N=291871 (39.4%)), Avonex (N=185273 (25%)), Betaseron (N=82147 (11.1%)) and Aubagio (N=157). The mean age of the patients was 52.38 ± 10.50 years, 75.7% of the patients were females, and majority of the patients were between 41 to 64 years of age (73.5%). Thirty two percent of the patients were from East, 34.6% were from Midwest, 25% from South and 7.8% is from West region. 56.6% of the patients were on a group coverage plan and 62.6% of the patients were on a DMT prescription that is under their health plan formulary. Majority of the patients were prescribed DMTs for 30 days (92.9%) with a significant difference between the drugs (P<0.001). Most of the patients were enrolled in the same health plan for 5.36 ± 2.40 years. **CONCLUSIONS:** Around 40% of the patients were on generic Copaxone for the treatment of RRMS. The majority of the patients were females, ages between 41 to 64 years, enrolled in the same health plan for 5 years and received prescription supply for 30 days or less.

PND15: CONDIÇOES SOCIOECONOMICOCULTURAIS DAS FAMÍLIAS DE INDIVÍDUOS NASCIDOS COM FISSURA LABIOPALATINA

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OBJETIVOS: Analisar a situação socioeconômica das famílias de indivíduos adultos nascidos com fissura labiopalatina de associação especializada da cidade de Maringá, Paraná, Brasil. **MÉTODOS:** A amostra foi composta dos prontuários clínicos dos 145 indivíduos fissurados adultos (18 anos ou mais) acompanhados na associação, de ambos os gêneros. Os dados incluíram itens da ficha de classificação socioeconômica utilizada pela associação pesquisada: escolaridade e profissão materna, renda familiar, condições de habitação. A escolha desses dados ocorreu baseada na literatura da área que associa condição socioeconômica, escolaridade e profissão maternas com a ocorrência de fissuras. **RESULTADOS:** A fissura labiopalatina é uma das malformações congênitas mais comuns, com alta incidência no Brasil e etiopatogenia complexa. Os quadros com envolvimento do palato são os de mais difícil solução, implicam em longos tratamentos interdisciplinares e são os de maior risco de sequelas estéticas e de comunicação, com risco de exclusão social. Os resultados mostraram maior ocorrência de famílias de classes sociais inferiores, com renda mensal abaixo de três salários mínimos. Prevaleceu o baixo nível de escolaridade materna, a maior parte das mães não trabalha fora, ou exerce profissões de baixa remuneração. As condições de moradia referidas foram, em geral, boas, em zona urbana, construção de alvenaria, propriedade própria, porém sem condições ideais de saneamento. **CONCLUSÕES:** Os dados permitiram concluir que a maioria dos fissurados labiopalatinos provém de classes socioeconômicas baixas, concordando com a literatura pesquisada.

SENSORY SYSTEMS DISORDERS - Clinical Outcomes Studies

PSS1: ACRYSOF CACHET PARA LA CORRECCIÓN DE MODERADA A ALTA MIOPÍA: UNA REVISIÓN SISTEMÁTICA Y META-ANÁLISIS

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La implantación de lentes intraoculares faquicos (pIOL) es aceptada a nivel mundial como una alternativa para corregir errores refractivos miopicos de moderados a altos en aquellos pacientes con contraindicación de un procedimiento refractivo corneal ya sea LASIK, LASEK o PRK, el lente intraocular AcrySof Cachet Phakic es un lente de cámara anterior y fijación en el ángulo iridocorneal, el cual actualmente se encuentra retirado del mercado por parte del fabricante. **OBJECTIVOS:** El objetivo de este estudio es establecer la efectividad y seguridad del pIOL Cachet en base a la mejor evidencia disponible y analizar las causas que llevaron a su retiro del mercado. **METODOLOGÍAS:** Se realizó una revisión sistemática de la literatura y los cálculos fueron obtenidos mediante un meta-análisis de los datos publicados en los artículos mediante un modelo de efectos aleatorios con un intervalo de confianza del 95% en las estimaciones más sus respectivas desviaciones estándares. **RESULTADOS:** El pIOL Cachet es un excelente método de corrección refractiva con una alta predictibilidad, tiene un índice de eficacia y de seguridad adecuados, presenta una rotación de más de 15 grados en un tercio de los pacientes, la posición final del pIOL está entre 0,85 a 0,94mm delante del cristalino, la distancia más pequeña entre el pIOL y el endotelio corneal corresponde a D3=1.30mm±0.14mm que son los bordes de la óptica del lente, si a esto se le agrega el nivel de rotación del pIOL este podrían producir un daño endotelial importante periférico por cercanía e inestabilidad. **CONCLUSIONES:** Se requiere mejorar la adaptación del lente, reducir el abovedamiento para que la distancia D3 se amplíe y reducir con esto el riesgo de daño endotelial periférico aun cuando se requiera de realizar una iridotomia por riesgo de bloqueo pupilar y finalmente respetar una distancia D2 mayor.

PSS2: IMPLANTE DE AHMED VERSUS IMPLANTE DE BAERVELDT: UNA REVISIÓN SISTEMÁTICA Y META-ANÁLISIS

Fau C, Nabzo S,Fundacion 2020, Santiago, Chile

OBJECTIVOS: Determinar la eficacia del implante de Ahmed en comparación con el implante de Baerveldt en la reducción de la presión intraocular (PIO) en pacientes operados de glaucoma crónico y además determinar su seguridad de acuerdo a la tasa de complicaciones quirúrgicas y postoperatorias. **METODOLOGÍAS:** Se realizó una revisión sistemática, se analizaron 857 referencias, además de sus artículos relacionados, luego de la selección y análisis de validación de los artículos, seis investigaciones fueron incorporadas al análisis en esta investigación. Estos estudios fueron analizados para determinar la eficacia y la seguridad de cada uno de los implantes, esta información se utilizo posteriormente para realizar un meta-análisis. **RESULTADOS:** Se analizaron 26 artículos de acuerdo con las directrices publicadas por el grupo de trabajo de medicina basada en la evidencia de la Universidad de McMaster y el Manual Cochrane para Revisiones Sistemáticas de las intervenciones. Como resultado de este análisis se seleccionaron 6 investigaciones para ser analizadas como parte de esta investigación, un estudio de casos y controles, dos ensayos clínicos y tres estudios retrospectivos. Se analizaron estos estudios para determinar la eficacia y la seguridad de cada uno de los implantes utilizados en los pacientes. Para el meta-análisis los estudios se agruparon en tres categorías de acuerdo al material de la placa, el tamaño de la placa y tipo de estudio. Para el análisis de los datos se utilizó el programa Stata11.1. **CONCLUSIONES:** El meta-análisis mostró que el implante de Baerveldt es más eficaz en la disminución de la PIO y ademas requiere de un menor uso de drogas que el implante de Ahmed, pero este último tiene menos complicaciones quirúrgicas y menos intervenciones quirúrgicas post cirugía de implantación. En cuanto a la hipotonía, no se encontraron diferencias significativas entre los 2 implantes.

SENSORY SYSTEMS DISORDERS - Cost Studies

PSS3: COST-EFFECTIVENESS ANALYSIS OF INTRAVITREAL AFLIBERCEPT COMPARED WITH RANIBIZUMAB-PRN IN PATIENTS WITH WET AGE-RELATED MACULAR DEGENERATION (WAMD)

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OBJECTIVES: Wet Age-Related Macular Degeneration (wAMD) is a degenerative disorder of the macula associated with the aging process and one of the main causes of severe and irreversible loss of vision in people older than 40 years. This study sought to estimate and compare the economic and health consequences of aflibercept vs ranibizumab-PRN in the management of patients with wAMD, from the Mexican Institutional Payer Perspective. **METHODS:** a six-state, monthly cycle Markov model simulated wAMD patients treated with either aflibercept (2mg each 8 weeks after a 3-monthly loading dose injections in the first year, followed by pro re nata (PRN) applications to complete second year) or ranibizumab-PRN (3-montly loading dose injections followed by PRN to complete 2 years). Effectiveness and safety parameters were extracted from international literature. Due lack of head-to-head trials, a Bayesian Network Meta-analysis was conducted with REVMAN 5.1 software to compare outcomes between drugs. Effectiveness measures were the proportion of patients gaining 6+ or 3+ lines of vision (+6L, +3L) and going blind or not-disabled (B, ND). The model assumed that there are only direct medical costs (drug, monitoring/administration, adverse events, and cost of blindness). Both costs and consequences were discounted at 5%/year through a 2-year time horizon. The costs are expressed in 2014 US$ and correspond to Mexican public healthcare institutions. Univariate and probabilistic sensitivity analyses were performed. **RESULTS:** Total expected costs for each alternative were: aflibercept US$8,627 and ranibizumab-PRN US$10,933. Cost reduction for aflibercept was mainly driven due significant lower total expected monitoring costs (≥40%). Results in effectiveness for each alternative (+6L, +3L, B, ND, respectively) were: aflibercept 3.71%, 21.14%, 3.74%, 0.42% and ranibizumab-PRN 2.37%, 17.63%, 5.29%, 0.20%.**CONCLUSIONS:** The results suggest that aflibercept is a dominant alternative for the treatment of wAMD, over ranibizumab-PRN in Mexican Patients, from the perspective of the Public Payer.

PSS4: ESTUDIO DE COSTO EFECTIVIDAD ENTRE EL IMPLANTE DE AHMED VERSUS EL IMPLANTE DE BAERVELDT EN PACIENTES OPERADOS DE GLAUCOMA CRÓNICO

Fau C, Nabzo S,Fundacion 2020, Santiago, Chile

OBJECTIVOS: Determinar la relación de Costo-Efectividad del implante de Ahmed en comparación con el implante de Baerveldt en la reducción de la presión intraocular (PIO) y su seguridad de uso de acuerdo a la tasa de complicaciones quirúrgicas y postoperatorias en pacientes operados de glaucoma crónico. **METHODS:** Se utilizó un modelo de árbol de decisión de costo-efectividad para establecer la comparación entre las alternativas: implante de Ahmed e implante de Baerveldt, las probabilidades del modelo se determinaron mediante una revisión sistemática de la literatura biomédica y meta-análisis, la efectividad es la reducción de la PIO, los costos de los procedimientos fueron calculados en pesos chilenos a valor actual desde el punto de vista de una institución de salud, mediante un método de microcosteo. Los datos fueron integrados en el modelo y analizados mediante el programa DATA TreeAge, con los cuales se calculó la razón de costo-efectividad de cada una de las alternativas de tratamiento. Se realizó un análisis de sensibilidad y una simulación de Montecarlo, además se calculó la razón de Costo-Efectividad Incremental (ICER) generada por una alternativa respecto de la otra. El horizonte de tiempo del análisis fue de 1 año, debido a esto no se utilizaron tasas de descuento. **RESULTADOS:** El implante de Baerveldt es la alternativa dominante del análisis, el análisis de sensibilidad mostró que los resultados obtenidos son robustos. **CONCLUSIONES:** El implante más costo-efectivo según la perspectiva del sistema de salud fue el de Baerveldt para tratar a pacientes adultos operados de glaucoma crónico.

PSS5: ANÁLISIS DE COSTO-EFECTIVIDAD DE INYECCION INTRAVITREA DE RANIBIZUMAB VERSUS AFLIBERCEPT EN EL TRATAMIENTO DE LA PERDIDA VISUAL SECUNDARIA A EDEMA MACULAR DIABETICO DESDE LA PERSPECTIVA DEL SISTEMA DE SALUD EN COLOMBIA

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OBJECTIVOS: Comparar desde la perspectiva del sistema de salud colombiano la costo-efectividad de la inyección intravítrea de ranibizumab en dosificación pro re nata (PRN)**)**versus la inyección intravítrea de aflibercept cada dos meses en el tratamiento de edema macular diabético (EMD) asociado a pérdida de visión. **METODOLOGÍAS:** Un modelo de Markov fue diseñado para simular los beneficios clínicos y económicos asociados con ranibizumab y aflibercept en el tratamiento del EMD. Los resultados de efectividad fueron medidos en ganancia de años sin impedimento visual y en años de vida ajustados por calidad (AVACs) en un horizonte de tiempo a tres años con ciclos de duración anuales utilizando una tasa de descuento del 5% tanto para costos como para desenlaces. Las probabilidades de transición utilizadas para el caso ranimizumab fueron tomadas del estudio RESTORE (1) y para aflibercept del estudio de Regnier y colaboradores (2). Los costos incluidos dentro del modelo fueron tomados de la base de datos del sistema de salud colombiano.**RESULTADOS:** El tratamiento con ranibizumab mostró una ganancia de 0.02 años sin impedimento visual con un costo incremental de USD $ (1.489,27) en relación con aflibercept, con un ICER de USD $(62.922,00). En años de vida ajustados por calidad ranibizumab mostró ser costo ahorrador sobre aflibercept en un horizonte de tiempo de 3 años. El análisis de sensibilidad probabilístico muestra que en 63 % de los casos ranibizumab es una alternativa dominante frente a aflibercept. **CONCLUSIONES:** En el manejo del edema macular diabético y para el sistema de salud colombiano el esquema de inyecciones intravítreas de ranibizumab PRN es una alternativa costo ahorradora frente al esquema de inyecciones intravítreas de aflibercept cada dos meses.

PSS6: COST-MINIMIZATION ANALYSIS OF INTRAVITREAL AFLIBERCEPT COMPARED WITH RANIBIZUMAB ON-LABEL IN PATIENTS WITH WET AGE-RELATED MACULAR DEGENERATION (WAMD)

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OBJECTIVES: Wet Age-Related Macular Degeneration (wAMD) is a degenerative disorder of the macula associated with the aging process and one of the main causes of severe and irreversible loss of vision in people older than 40 years. Aflibercept is an antiangiogenic therapy that leads to results as good as ranibizumab's, with less injections and monitoring. This study sought to estimate the economic consequences of aflibercept vs. ranibizumab, once it was proved that there is no statistically-significant differences (5% equivalence margin) in efficacy and safety profiles, in the management of patients with wAMD, from the Mexican Institutional Payer Perspective. **METHODS:** a cost-minimization set was developed for the comparison between aflibercept (2mg each 8 weeks after a 3-monthly loading dose injections to complete a first year, followed by pro re nata (PRN) applications to complete a second year), vs. ranibizumab on-label (0.5mg each 4 weeks during a first year, followed by PRN applications for a second year) comparison, after proving no statistically-significant differences (5% equivalence margin) in efficacy and safety profiles , based in the results reported in a head-to-head, multicentric, dobule-blind phase III clinical trial (VIEW trial). Costs were discounted at 5%/year through a 2-year time horizon. The costs are expressed in 2014 US$ and correspond to Mexican public healthcare institutions. Univariate sensitivity analyses were performed. **RESULTS:** Total expected costs for each alternative in the cost-minimization set were: aflibercept US$9,839 (US$6,946 related to drug and $2,893 to monitoring/application) and ranibizumab on-label US$14,389 (US$8,989 trelated to drug and $5,400 to monitoring/application).**CONCLUSIONS:** The results indicate that aflibercept is a cost-saving option over ranibizumab on-label for the treatment of wAMD patients in Mexico, from the perspective of the Institutional Payer, without compromising the results in health.

PSS7: ESTIMACIÓN DE CAMBIOS EN LA CALIDAD DE VIDA DEBIDO AL USO DE OCRIPLASMINA EN PACIENTES CON TRACCIÓN VITREOMACULAR EN COLOMBIA

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OBJECTIVOS: estimar la efectividad por el uso de ocriplasmina en pacientes con tracción vitreomacular frente al tratamiento expectante, medida como los cambios en la cantidad de años de vida ajustados por calidad de vida para Colombia. **METODOLOGÍAS:** mediante un modelo de árbol de decisión, que luego de seis meses prosigue con un modelo de Markov, donde el paciente es evaluado en diferentes niveles de agudeza visual, se comparó el tratamiento con ocriplasmina frente a la opción de "observar y esperar". Los parámetros clínicos fueron tomados de estudios pivotales de la tecnología, el de servicios fue obtenido a través de la opinión de expertos por medio de encuestas y las utilidades del estudio fueron tomadas del estudio de Fukuda 2009. El modelo fue analizado para un paciente promedio de 72,5 años y en un horizonte temporal de todo la vida.**RESULTADOS:** los resultados mostraron una ganancia de efectividad por el uso de ocriplasmina y son similares a los resultados de los estudios pivotales. La estimación de los años de vida ajustados por calidad de vida es de 3,607 frente a 3,543 con el tratamiento expectante. En un análisis por subgrupos se mostró que el grupo con mayor ganancia en efectividad fue el de pacientes que presentan agujero macular en estadio II igual o menor a 400 µm con un incremental en años de vida ajustados por calidad de 0,077. **CONCLUSIONES:** se demuestra cómo el uso de ocrisplamina significa una mejora en la calidad de vida de los pacientes frente al tratamiento expectante, siendo esta diferencia mayor en ciertos grupos objetivos del tratamiento, con los que se puede demostrar sus beneficios en la atención en salud de esta enfermedad.