

# Impact of Nephrological Care on Dialysis Initiation and Survival

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REGISTRO DE URUGUAYO DIALISIS

## BACKGROUND

Despite significant improvement in dialysis technology, mortality rate (MR) in chronic dialysis (CD) patients (Pts) still remains extremely high. Late referral to nephrologist has been linked to higher morbidity and short term mortality.

The **OBJECTIVE** of the study is to analyze the impact of predialysis nephrological care (PNC) on selected clinical indicators and first year survival on CD

## METHODS

Data from the Uruguayan Registry of Dialysis of Pts beginning CD between 11/1/2008-12/31/2011 were analyzed. PNC was assessed by stage 4 Pts included in the CKD Registry with follow-up  $\geq 3$  months. Quality of care indicators at CD initiation included: hemoglobin (Hb)  $\geq 10$  g/dL, fistula  $\geq 60$  days (FAV60) and hepatitis B (HB) immunization. Initial CD modality was assessed. Hospitalization time at CD initiation and first year survival were compared regarding PNC, including PNC time and number of visits.

Logistic regression analysis age, gender and diabetes adjusted was performed for hospitalization  $< 5$  days.

Univariate first year survival was compared by Log Rank Mantel Cox, and Cox regression analysis for MR risk factors. Significant differences were considered as  $p < 0.05$

### Conclusions:

Pts with PNC had better quality of care indicators, lower initial hospitalization time CD and of most importance greater first year survival allowing timely fistula confection. Our study emphasizes the importance predialysis care in order to reduce costs and improve outcomes.

## RESULTS

Of 1666 Pts that began CD, 194 (11.6%) had PNC. Pts with PNC had older age and were more commonly than those without PNC (Table I).

TABLE I. PATIENTS CHARACTERISTICS ACCORDING PREDIALYSIS NEPHROLOGICAL CARE

	PNC YES	PNC NO
Age (Mean $\pm$ DS)	67.1	60.5
Gender: Female (%)	49.5	40.1

PNC was significantly associated to higher Hb, higher rate of Hepatitis B immunization, and more frequently arterio-venous fistula or graft performed more than 60 days previous to dialysis beginning (Table II).

TABLE II. QUALITY OF CARE INDICATORS ACCORDING TO PREDIALYSIS NEPHROLOGICAL CARE

	PNC YES	PNC NO
Hb $\geq 10$ g/dL (%)	61	41.5
Hepatitis B Vaccine (%)	54.6	23.1
A-V Fistulae $\geq 60$ days (%)	34.6	17.3
Hospitalization time (Mean $\pm$ DS)	8.5 $\pm$ 14.5	15.6 $\pm$ 20.2

Peritoneal Dialysis choice was not significantly higher in patients with PDC (14.9 vs 9.8%).

**Hospitalization time** was significantly lower in PNC Pts but didn't differ with PNC time or number of visits. Less hospitalization was associated to PNC and Hb  $\geq 10$ g/dL.

**First year survival** was higher in Pts with PNC (87.1 vs 82.4%;  $p=0.11$ )  
Cox regression analysis showed that previous AVF reduced significantly (72%) first year mortality Adjusted to age, gender diabetes and PNC.