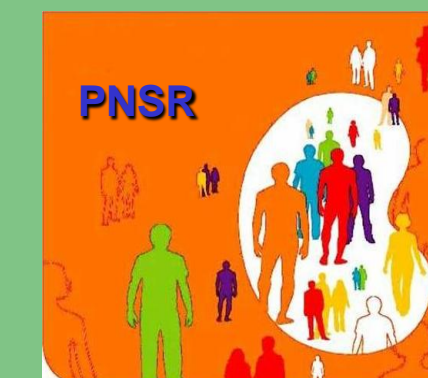




RISK FACTORS FOR END STAGE RENAL DISEASE AND DEATH IN ADVANCED CHRONIC KIDNEY DISEASE PATIENTS

Laura Sola^{*1,2}, Nancy De souza^{1,2}, Pablo Rios², Emma Schwedt² and Nelson Mazzuchi²

¹Advanced CKD Clinic, Hospital Maciel, Uruguay and ²Renal Healthcare Program, Uruguay



Background

Patient's referral to nephrologists allows implementing measures to slow progression and reduce the risk (R) of death in patients (Pts) with advanced chronic kidney disease (ACKD).

Objectives

The objective of this study is to evaluate R factors (RF) for death and End Stage Renal Disease (ESRD) in ACKD Pts in the Renal Health Program of Uruguay Registry (RHP-U)

Methods

Pts registered in the RHP-U (10/1/2004-10/1/2011) were included if estimated glomerular filtration rate (eGFR) was < 30 ml / min in ≥ 2 controls and follow-up was ≥ 90 days. At each visit it was registered: systolic (SBP) and diastolic (DBP) blood pressure, proteinuria, cholesterol and triglycerides levels, renin angiotensin system blockers (RAS-B) use.

Late referral was defined as registered in ACKD. Formal multidisciplinary team (FMT) was compared to usual care.

Methods

ESRD and death rates were calculated and RF were analyzed with Cox regression model. Was considered significant $p < 0.05$.

Results

991 Pts: 483 (48.7%) males

Mean age 69.9 ± 13.5 ys

Diabetes (D): 405 (41%)

Coronary heart disease (CHD): 235 (23.8%)

Nephropaty: D187(18.9%), vascular398(40.2%)

During follow-up (median 1.57 (IQ: 0.90-2-57) ys)

123 Pts died (6.63 /100 pts-ys) and 161 Pts reached ESRD (8.68 / 100 pts-ys).

Rapid progression (eGFR loss ≥ 3 ml/min/year), in 399 pts (40.3%) increased with higher SBP (OR: 1.02: 1.01-1.03), proteinuria (OR 1.38: 1.17-1.64), and D nephropathy (OR 1.49: 1.05-2.10).

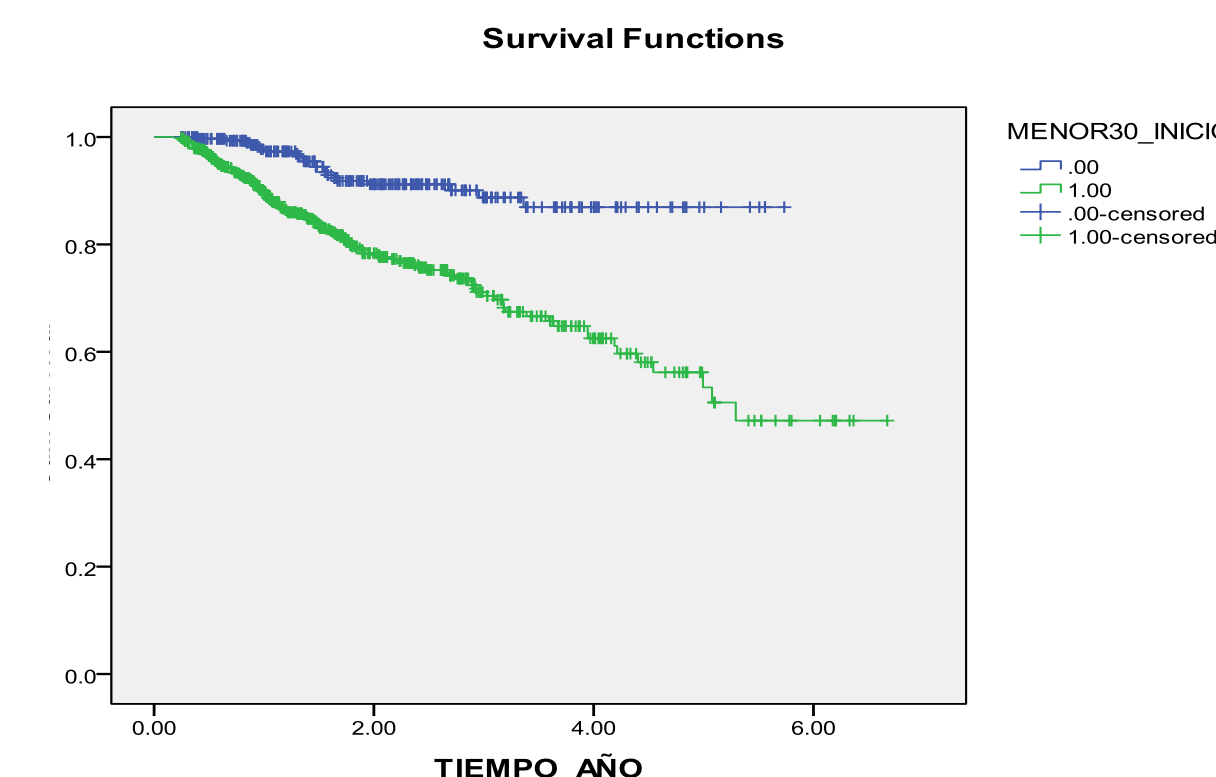
ESRD risk increased with

- SBP (HR 1.016: 1.006-1.026)
 - proteinuria (HR 1.183: 1.056-1.325)
 - age <45 ys (OR 2.35: 1.25-4.41)
 - phosphatemia (HR 1.20: 1.09-1.31)
 - late referral (HR 3.77: 2.39- 5.95);
- and decreased with RAS-B use (HR 0.59: 0.41-0.84) and FMT (HR 0.56:0.36-0.86).

Results

ESRD risk decreases with: RAS-B use (HR 0.59: 0.41-0.84), FMT (HR 0.56:0.36-0.86).

Fig.1 ESRD RISK according CKD stage at referral



Death risk increase in: males (HR 1.66: 1.14-2.43), age (HR 1.05: 1.03-1.07), proteinuria (HR 1.24:1.06-1.44), and CHD (HR1.97:1.44-2.71)

Death risk reduced by FMT (HR 0.58:0.35-0.94).

Conclusions

Proteinuria is a common RF for death and ESRD. Using RAS-B and PAS control reduces ESRD risk. Early referral to nephrologists and a FMT care allow the reduction of CKD progression and death