INTRODUCTION AND AIMS: Glomerulonephritis (GN) is associated with an increased likelihood of progression to end-stage renal disease (ESRD) and death. The use of immunosuppressive drugs, monoclonal antibodies and new treatment protocols (i.e., immunosuppressive drugs combination, prolonged treatment period) may decrease those risks. Objective: To evaluate changes in the incidence of GN as a cause of ESRD at long-term, the impact of ESRD related to GN on mortality compared to other aetiologies, and the effect of kidney transplant (Ktx) as an equivalent of chronic immunosuppression treatment on these outcomes.

METHODS: We analysed all incident patients starting chronic renal replacement therapy (CRT: haemodialysis or peritoneal dialysis) from 2004 to 2015 at a tertiary hospital. To evaluate changes in the percentage incidence, the sample was stratified into three periods: A: from 2004 to 2007; B: from 2008 to 2011; and C: from 2012 to 2015.

RESULTS: N = 506 patients. GN represents 19% of all aetiologies (n = 97). GN patients who started CRT decreased from 23% to 22%, and 14% during the periods of time A, B and C, respectively (P = 0.030 for A vs C). GN patients started CRT younger than those with non-GN ESRD [median = 9 (95% CI: 6 - 13) yrs]. Deaths occurred in 238 patients (47%) of the cohort. Non-GN patients had a higher mortality risk [HR = 2.10; (95% CI: 1.43-3.10) and were less likely to be transplanted [HR = 0.69 (95% CI): 0.49-0.98] than those with GN. As a whole, age below 60 yrs and Ktx were independently related to a better survival. The hazard ratio of mortality comparing not-Ktx versus Ktx in non-GN and GN was 4.5 (95% CI: 2.4-8.3) and 12.3 (95% CI: 3.6-41.1), respectively. Furthermore, age was no longer a significant predictor for mortality in that last subset of patients. However, we did not find any significant differences on mortality between non-GN and GN patients in not-Ktx subjects.

CONCLUSIONS: In our population, GN seems to be decreased as a cause for ESRD in the last decade. GN patients started younger on CRT. However, they showed a higher probability to be transplanted, even though its condition is associated with a better survival. This finding may be related to the chronic immunosuppression of those patients.