

# ACUTE KIDNEY FAILURE REQUIRING RENAL REPLACEMENT THERAPY - RISK FACTORS AND OUTCOME OF FOLLOW-UP IN THE FIRST YEAR -

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## INTRODUCTION

Acute kidney injury (AKI) is an important public health problem. AKI is a risk factor for progression of kidney disease, incidence of chronic kidney disease (CKD) and mortality. The aim of the study was to assess characteristics, renal survival and mortality of patients who developed AKI stage 3, according to KDIGO guidelines, and needed renal replacement therapy (RRT), not in intensive care unit.

## MATERIAL AND METHODS

All patients who required RRT due to AKI stage 3 along two years were included, excluding patients in intensive care unit. Demographic and personal history data, previous renal function, cause of AKI, renal function, renal survival, and mortality at one, three, six and twelve months after AKI were recorded.

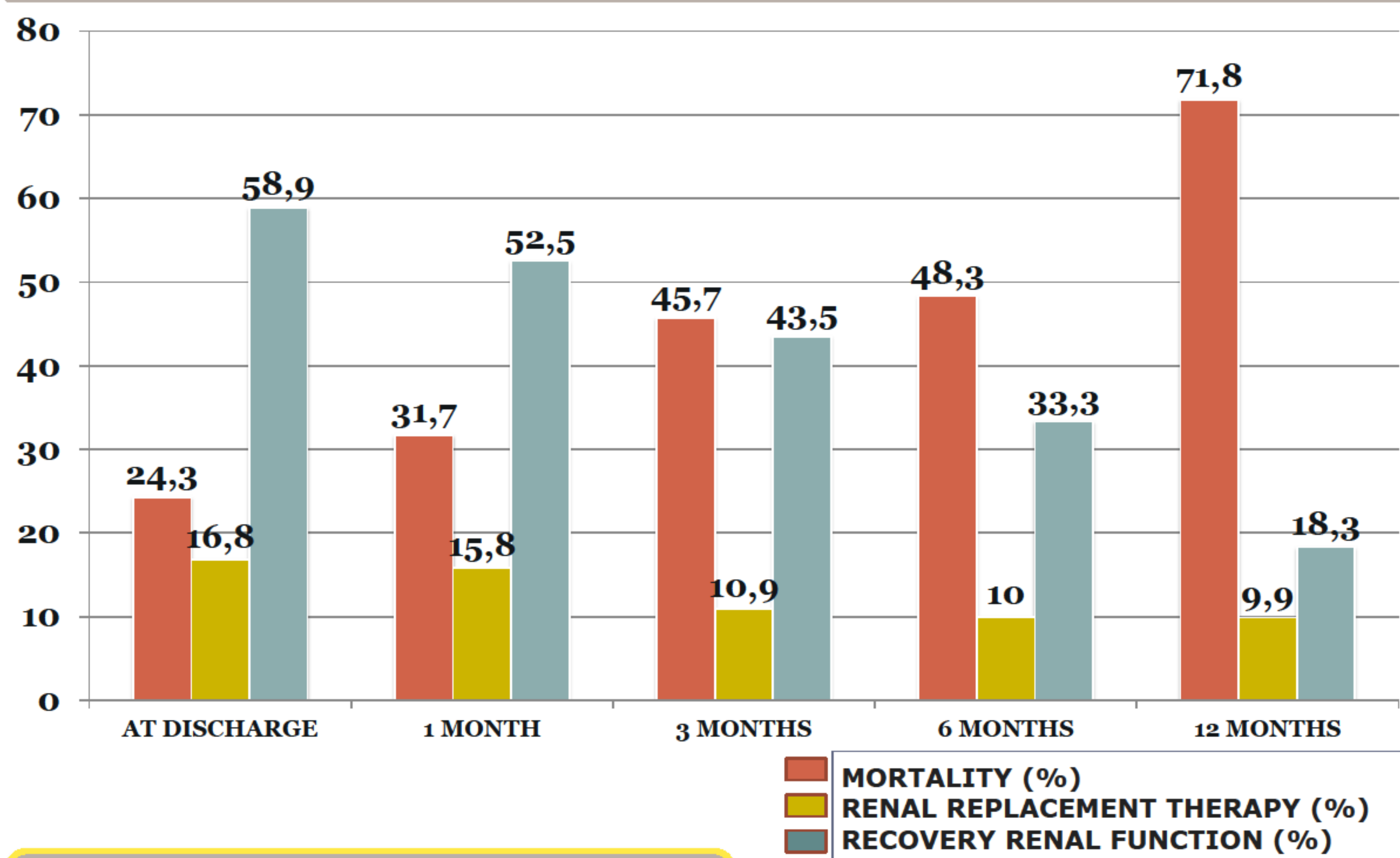
## RESULTS

- ✓ A total of 107 patients were enrolled (incidence 134 patients/10<sup>6</sup> population/year).
- ✓ Mean age 72.2±13.9 (range 25-92), 57.9% men.
- ✓ Patient's characteristics: 77.6% were hypertensive, 40.2% were diabetics, 45.8% were dyslipemics, 41.1% were obese, 27.1% were smokers, and 61.2% with chronic renal failure (eFG<60mil/min) of which 54% stage 3, 36.5% stage 4, and 9.5% stage 5.
- ✓ Cause of AKI: renal disease 63.6%, prerenal 28.9% and obstructive causes 7.5%.
- ✓ AKI in diabetic or dyslipemic patients has an increased mortality (p=0.03 and p=0.06 respectively).
- ✓ CKD before AKI is not associated with increased mortality.

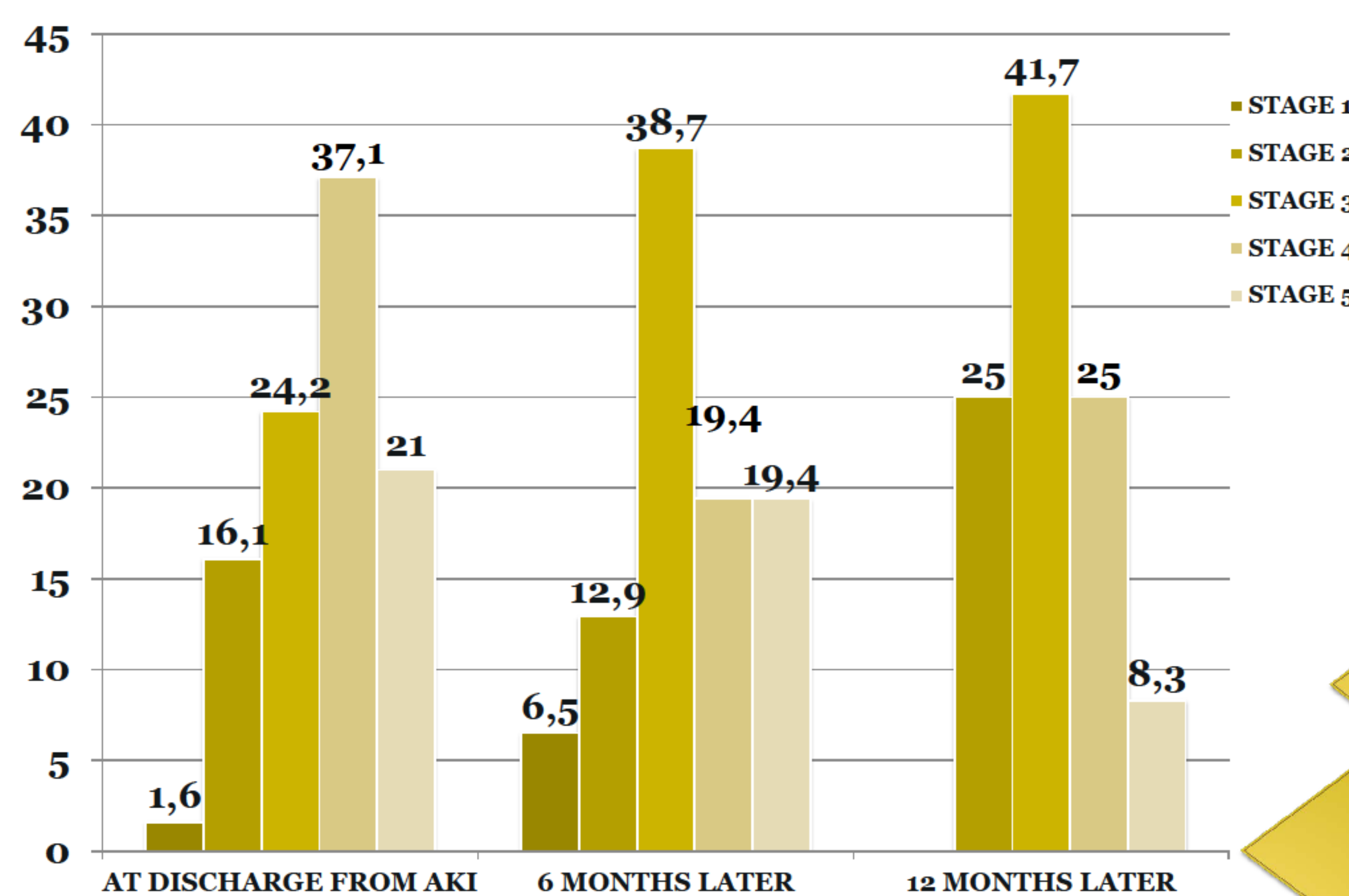
### RENAL FUNCTION

Serum creatinine before AKI	Maximum serum creatinine during AKI hospitalization	Serum creatinine at discharge from AKI	Serum creatinine 1 month later from AKI	Serum creatinine 3 months later from AKI	Serum creatinine 6 months later from AKI	Serum creatinine 12 months later from AKI
1.78±1.12 mg/dL	7.39±4.43 mg/dL	2.64±1.62 mg/dL	2.07±1.36 mg/dL	2.35±1.60 mg/dL	2.25±1.85 mg/dL	1.95±1.14 mg/dL

### EVOLUTION OF ACUTE KIDNEY INJURY REQUIRING RENAL REPLACEMENT THERAPY



### RENAL FUNCTION ACCORDING TO KDOQI CLASSIFICATION (%)



## CONCLUSIONS

- ❖ In our health area AKI stage 3 requiring RRT have a incidence similar to other studies.
- ❖ Mortality in AKI patients exceeds 70% one year after AKI episode and renal survival decreases in this period.
- ❖ Nephrology follow-up must be established in patients who survive AKI. The develop of tools to identify high-risk patients and to promote renal recovery is important to reduce burden of CKD and mortality.