

RENAL TRANSPLANTATION IN AN INTENSIVE CARE UNIT: AN 11 YEAR PORTRAIT

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Renal transplantation. Clinical.

INTRODUCTION

- Kidney Transplantation – greatest potential for restoring a healthy productive life;
- Immunosuppression → higher risk for infection
- Infection is the most frequent cause of death in non-cardiac intensive care units (ICU)

RESULTS

11 years → 88 kidney transplant patients admitted in UCI

MALE	64%
AGE (mean)	54 (+- 13,6) years
CADAVER DONOR	99%
1 ST TRANSPLANT	90%
EXPANDED CRITERIA	48%
POST-TRANSP TIME	38,7 months (median)
INDUCTION	64% Basiliximab
MAINTENANCE	54% steroids + calcineurin inhibitors + MMF

ADMISSION CAUSE → 86% INFECTION

RESPIRATORY	47%
Nosocomial pneumonia	N=24
Community-acquired pneumonia	N=10
URINARY	21%
Urinary tract infection	N=13
Peri-graft abscess	N=3
ABDOMINAL	17%
Intestinal ischaemia	N=6
Intestinal perforation	N=2
OTHER	15%

OBJECTIVES

RENAL TRANSPLANT PATIENTS ADMITTED TO AN ICU

- Demographic data
- Infectious complications
- Graft outcome
- Patient outcome
- Mortality predictors

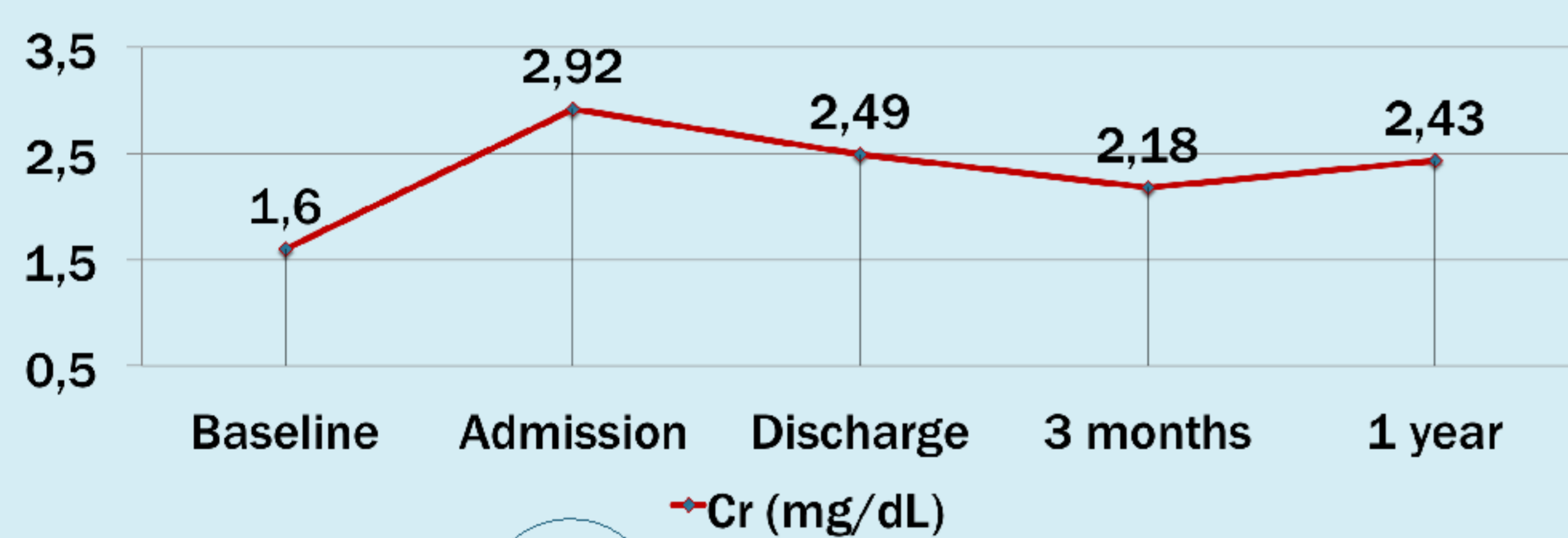
MATERIALS AND METHODS

- 11-year retrospective observational study of all the renal transplant patients admitted to an ICU
- Convenience sample
- SPSS v. 23 for Mac (SPSS, Chicago, IL, USA)

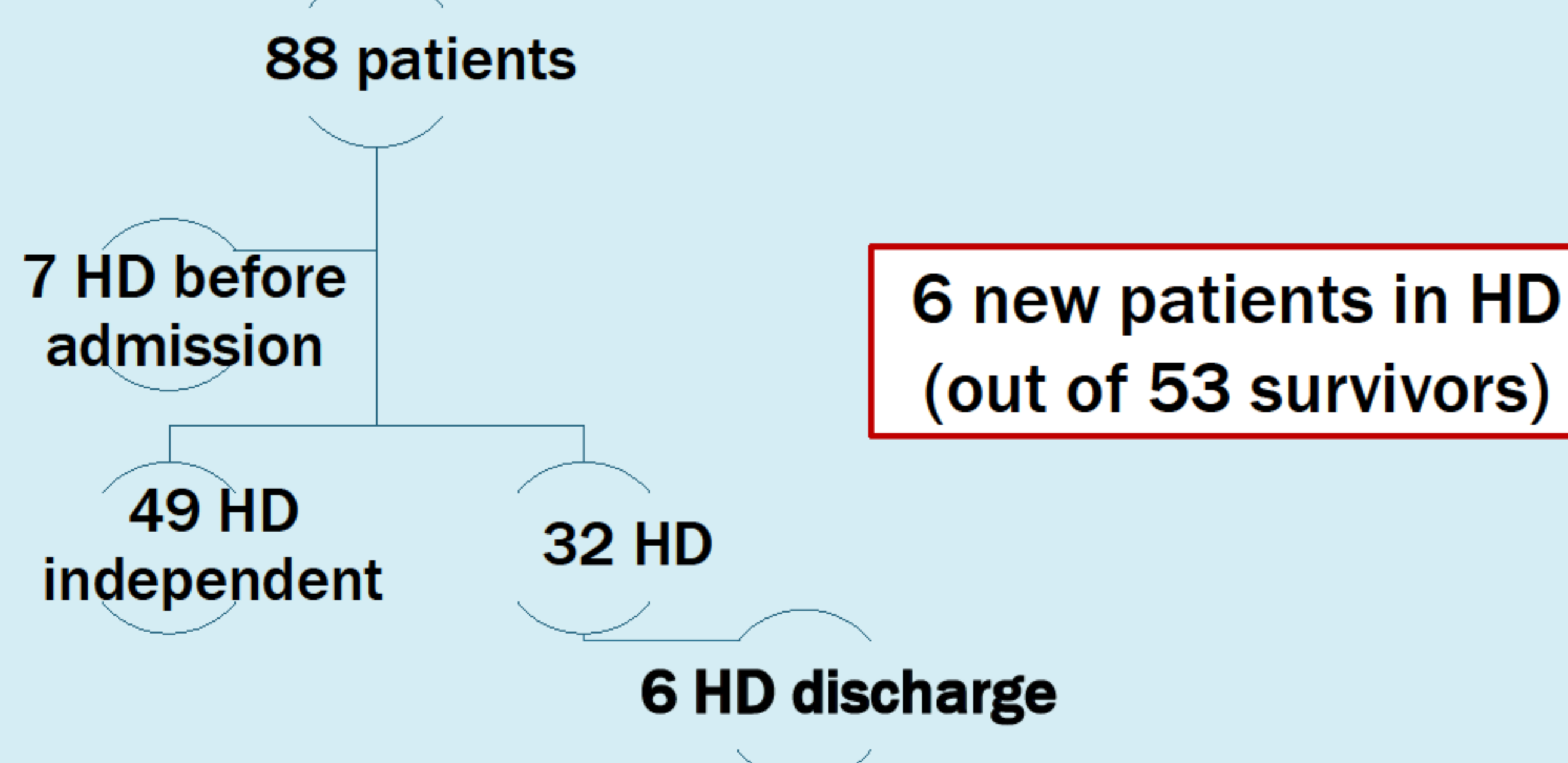
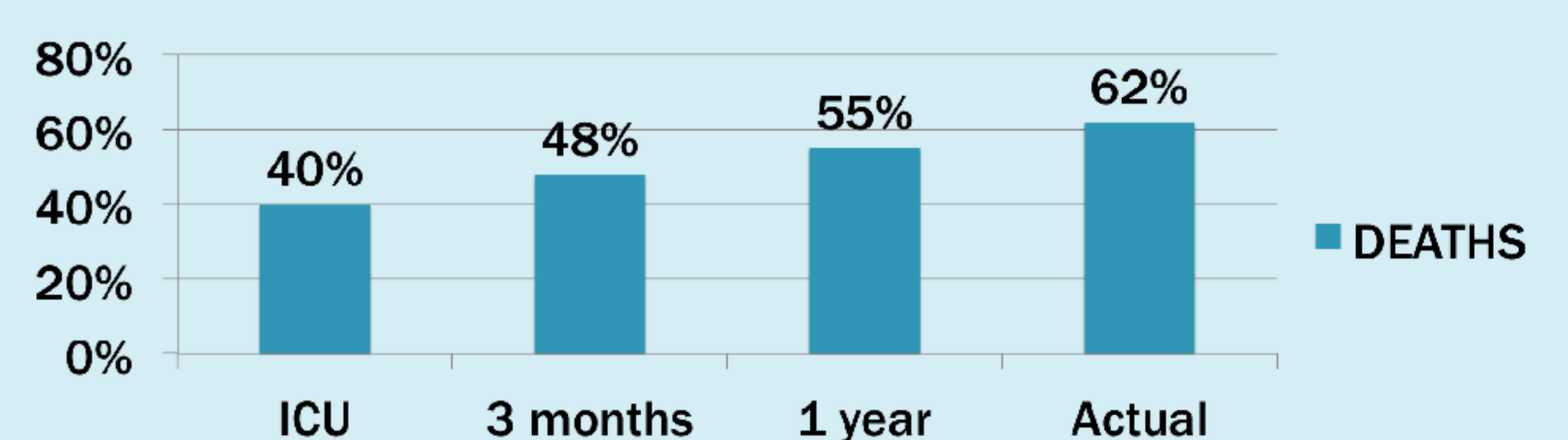
MICROBIOLOGY

RESPIRATORY SAMPLES	N
<i>Pseudomonas aeruginosa</i>	5
<i>Pneumocystis jirovecii</i>	4
<i>Acinetobacter baumani</i>	3
Fungos (<i>Candida</i> , <i>Aspergillus</i>)	4
<i>Staphylococcus aureus</i>	2
<i>Influenza H1N1</i>	1
URINARY SAMPLES	N
<i>Escherichia coli</i>	8
<i>Klebsiella pneumoniae</i>	6
<i>Pseudomonas aeruginosa</i>	1
ABDOMINAL SAMPLES	N
<i>Enterococcus faecium</i>	2
<i>Pseudomonas aeruginosa</i>	2
<i>Bacteroides fragilis</i>	1
<i>Escherichia coli</i>	1
<i>Staphylococcus aureus MR</i>	1

Graft outcome



Patient outcome



MORTALITY PREDICTORS

	Survivors (N=53)	Death (N=35)	p	Odds Ratio	95% CI
Post-tx time >1 year	37 (70%)	19 (54%)	0,14		
Admission Cr (mg/dL)	2,8	3,5	0,07		
Dialysis in UCI	17 (32%)	22 (63%)	0,04	31,8	3,6-280
Septic shock UCI	56 (63%)	27 (51%)	0,01	8,13	1,4-48

CONCLUSIONS

- The main cause for ICU admission is infection, with septic chock, mainly from respiratory infection;
- The presence of septic shock in admission represents an increased mortality risk of 8 times;
- The need of dialysis during admission in UCI increases mortality risk 31 times;
- Mortality rate in kidney transplant patients admitted in UCI is about two folds higher than general population;

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- Klouche K., et al; Outcome of Renal Transplant Recipients Admitted to an Intensive Care Unit: a 10-year Cohort Study. Transplantation 2009 Mar 27; 87(6):889-95
- Sadaghdar MD, et al; Outcome of Renal Transplant Recipients in the ICU; Clinical Investigations in Critical Care. Chest 1995; 107 (5): 1402-5
- Mouloudi E, et al; Infections Related to Renal Transplantation Requiring Intensive Care Admission: A 20-Year Study; Transplant Proc 2012 Nov; 44 (9): 2721-2733
- Mouloudi E, et al; Course and Outcome of Renal Transplant Recipients Admitted to the Intensive Care Unit: a 20-Year Study; Transplant Proc 2012 Nov; 44 (9): 2718-2720

