

# PAEDIATRIC KIDNEY TRANSPLANT PROGRAM IN KAZAKHSTAN

Venera Altynova <sup>1</sup>, Dinara Galiyeva <sup>2</sup>

<sup>1</sup>Corporate Foundation "University Medical Center", National Research Center for Maternal and Child Health, Astana, Kazakhstan

<sup>2</sup>Centre for Population Health Sciences, University of Edinburgh, Edinburgh, the United Kingdom

## BACKGROUND

In Kazakhstan the prevalence of renal replacement therapy in children with end stage renal disease (ESRD) was 6 per million of the age-related population in 2013. Kidney transplantation is the best way to reach the medical and social rehabilitation of children with ESRD. Paediatric kidney transplant program in Kazakhstan was launched in 2012 at the National Research Centre for Maternal and Child Health in Astana.

## OBJECTIVE

The aim of this study is to evaluate the results of the renal transplantation in children in Kazakhstan in the period from 2012 to 2015.

## METHODS

We have conducted a retrospective analysis of the 29 transplanted children under the age of 18 who received kidney transplants at the National Research Centre for Maternal and Child Health in Astana during 2012-2015 years within paediatric kidney transplant program.

## CONCLUSIONS

Assessing the experience of the first 29 transplanted children at the National Research Centre for Maternal and Child Health in Astana from 2012 to 2015, we can conclude that all the efforts that have been made for the implementation of this program have been successful.

However, there are number of issues that require further consideration, such as allowing nephrologists to use protocols with minimal immunosuppressive support (early cancellation of steroids), carrying out a kidney transplantation in children with incompatible ABO system, increasing the number of cadaveric transplantation and the introduction of post-mortem donation for children.

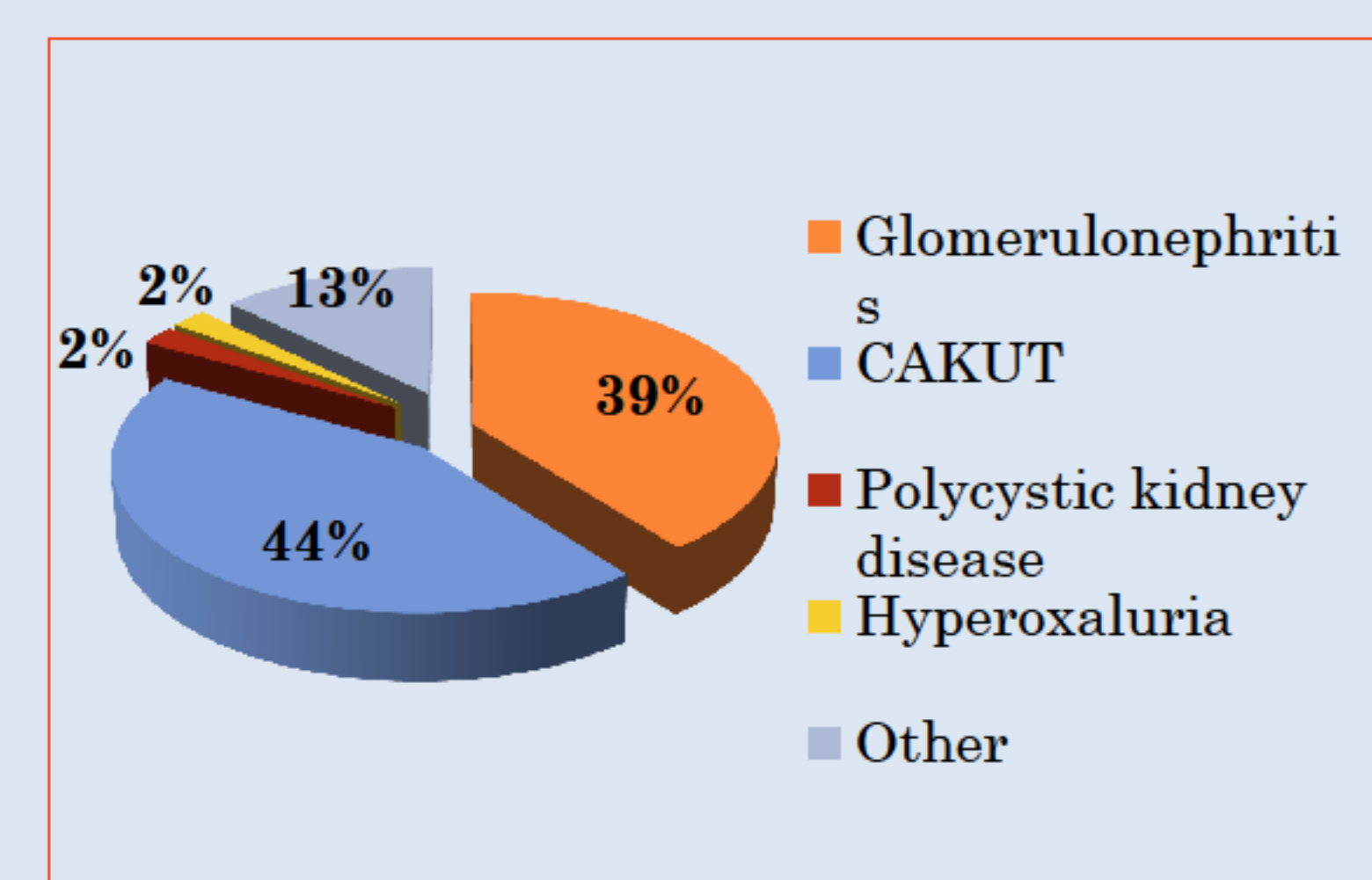
## Contact details

- Dr. Venera Altynova-email: Venera.Altynova@nrcmc.kz
- Dr. Dinara Galiyeva-email: Dinara.Galiyeva@ed.ac.uk

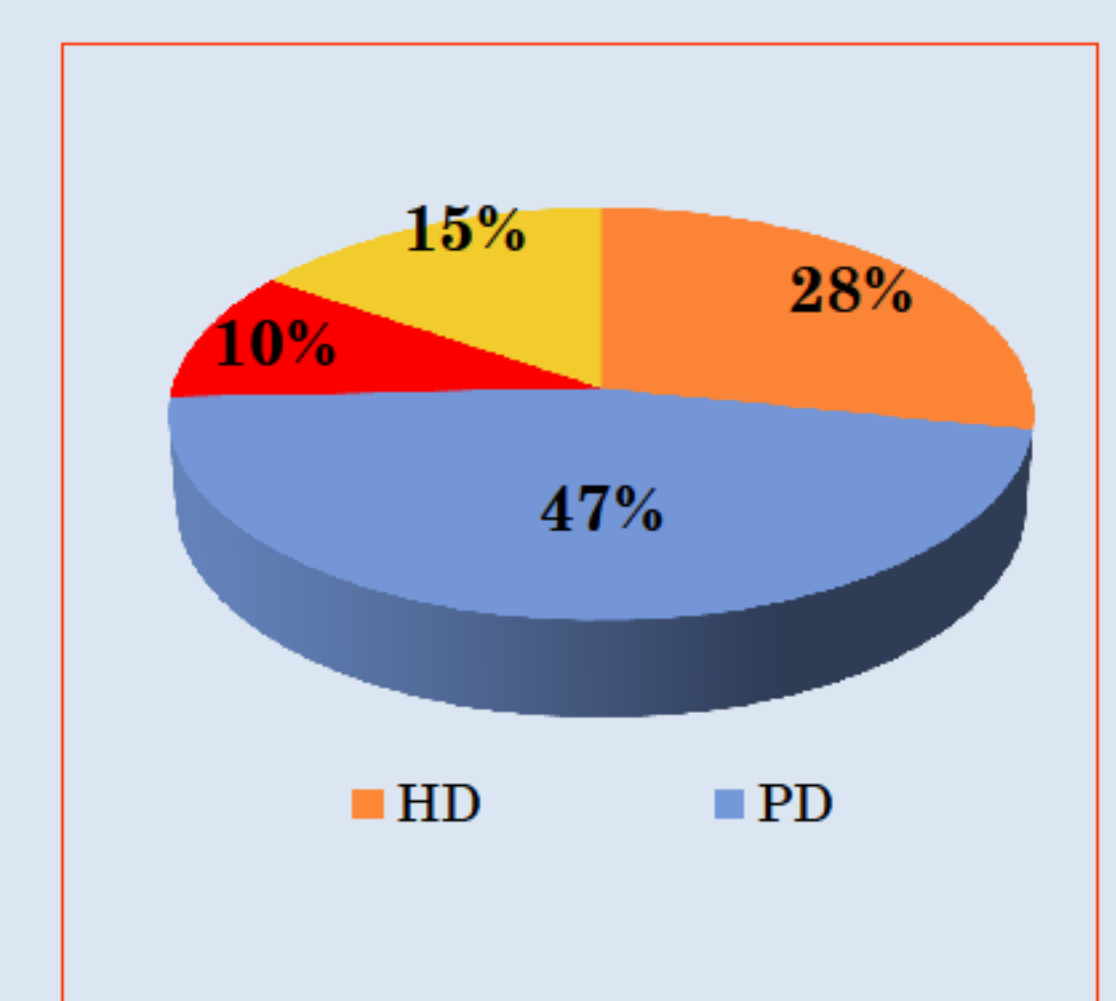
## RESULTS

- Mean age 11.2 years (Standard Deviation 3.9)
- Females-69% (n=20).
- Living donor recipients -72% (n=21)
- Deceased donor recipients- 28% (n=8)
- Median waiting time for transplantation-1 year (Interquartile Range 0.5-2.5).

### Primary Renal Disease



### RRT type before kidney transplantation



## Immunosuppressive therapy:

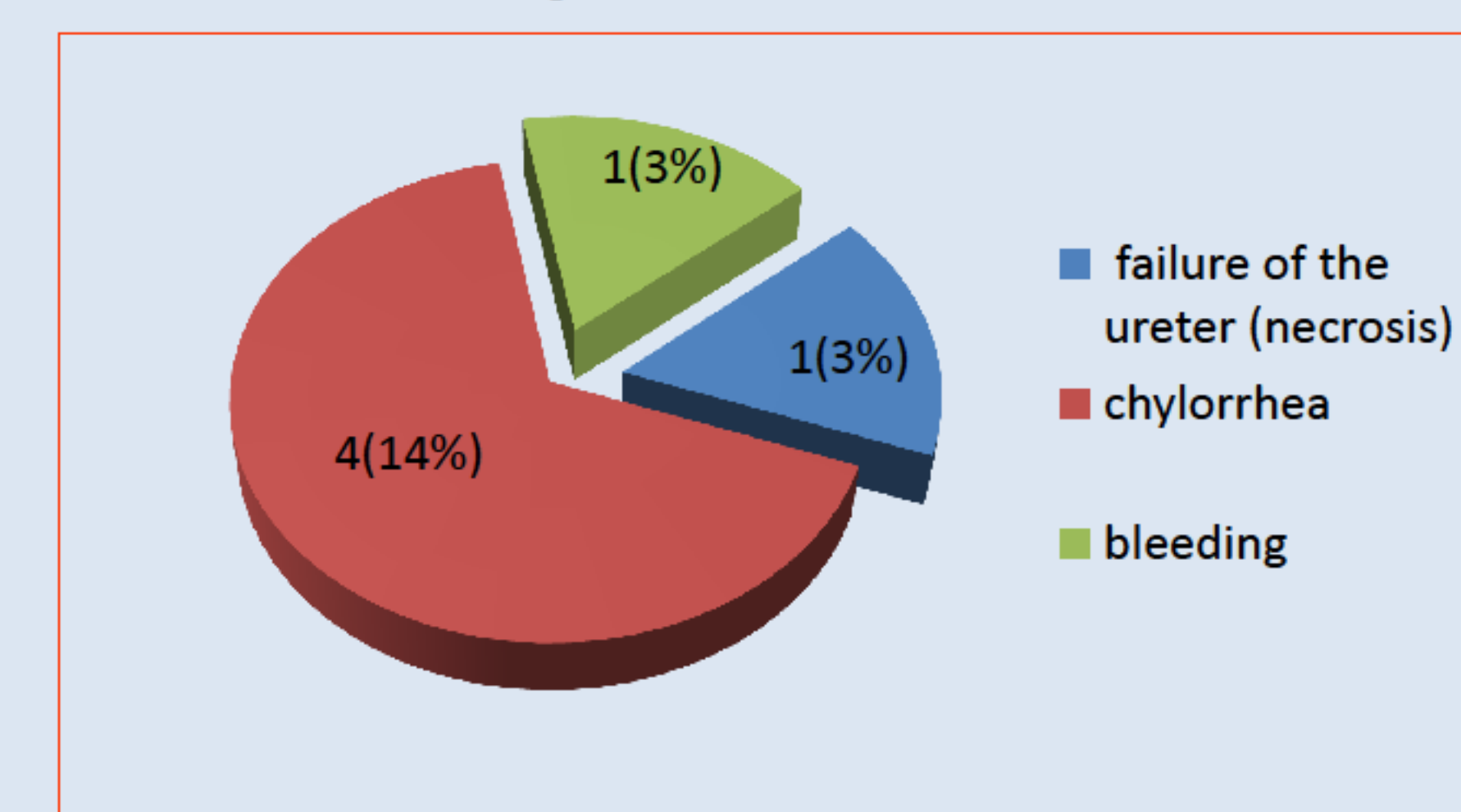
### Induction therapy

- Monoclonal antibodies -Basiliximab (Simulect)
- Anti-thymocyte immunoglobulin –Thymoglobuline

### Basic therapy

- Calcineurin inhibitors -Tacrolimus or Cyclosporine
- Mycophenolic acid (Cell-Sept)
- Glucocorticoids -Prednisolone or Methylprednisolone

## Surgery complications after kidney transplantation, n=6



## Patient and graft survival analysis

Mean follow-up time - 1.4 years (SD 0.9)/ 43 patient-years.

Death-n=2 (7%).

Mortality rate - 4.7 per 100 patient-years.

One-year patient survival -94%

Three-year patient survival 92%

Graft loss -n=1

Graft dysfunction=8

One-year graft survival -97%

Three-year graft survival 85%