



Outcomes after return to dialysis following first kidney allograft loss in children

By Sevcan Bakkaloglu, the Chair of the ESPN/ERA Registry Committee



As the Chair of the ESPN/ERA Registry and an experienced pediatric nephrologist at Gazi University, Ankara, Türkiye, I was honored to receive the ESPN/ERA Registry Travel Grant. This opportunity allowed me to spend 10 weeks at the Registry in Amsterdam, working within a highly collaborative international epidemiological research environment and closely engaging with one of the most comprehensive pediatric nephrology databases worldwide.

During this period, I performed a multinational registry-based study examining outcomes after return to dialysis following first kidney allograft loss in children, using data from 33 countries. This high-risk transition remains insufficiently characterized. Our analyses demonstrated that, while overall 5-year patient survival was favorable (94%), important risk factors for mortality included early graft loss and unknown primary renal disease. We also identified disparities in access to re-transplantation, underscoring the need for more equitable and timely transplant strategies, particularly for vulnerable subgroups.

I had the privilege of working closely with Marjolein Bonthuis, Iris Montez de Sousa, and Vianda Stel, whose expertise and support were instrumental in bringing this study to completion.

The findings of this work were submitted to the ERA Congress and selected among the Top 10 abstracts, highlighting both the scientific impact of the study and the value of international registry collaborations in advancing pediatric nephrology care. I am confident that this collaboration will continue to grow and the Registry data will continue to generate highly impactful and productive research outcomes.

I would like to once again extend my sincere appreciation and warmest thanks to the Registry team for their generous hosting and invaluable support throughout my stay.

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For more details, please attend the presentation on Friday, June 5, 8:15 - 9:45 (BST), Room M1

Factors behind the varying kidney transplant recipient survival in Europe

By Rianne Boenink, Epidemiologist at the ERA Registry

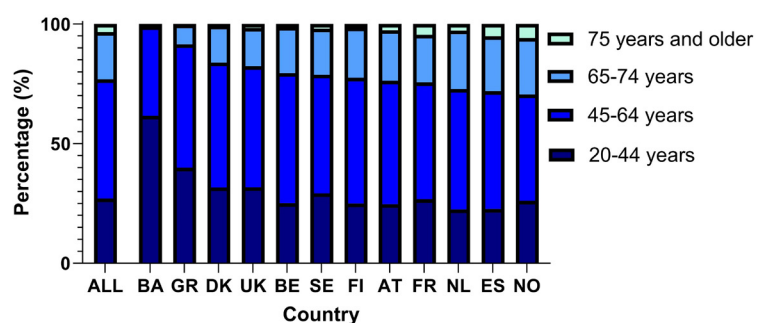


Kidney transplantation is the preferred treatment for most patients with kidney failure, offering better quality of life and longer life expectancy than maintenance dialysis. However, limited donor organ availability keeps many otherwise eligible candidates on dialysis, with access to transplantation varying across countries. Previous ERA Registry studies have shown substantial variation in kidney transplantation rates across European countries, as well as differences in the evaluation of kidney transplant candidates, recipient characteristics, and the distribution of living vs. deceased donors (1-3). Among these differences, countries with higher kidney transplantation rates tend to transplant a greater proportion of recipients aged 65 years and older (Figure 1) (2).

International variation in patient- and country-level factors, such as those mentioned above, may contribute to differences in post-transplant survival between countries. While annual reports from kidney replacement therapy registries and most scientific studies report kidney transplantation survival either at the European level or within a single country, no study to date has directly compared post-transplant survival across individual European countries. This leaves an important gap in understanding how international differences in patient- and country-level factors may impact post-transplant survival.

Our study is based on 51,379 adult patients, from 14 European countries from the ERA Registry database, who received a first kidney transplant between 2013 and 2017. Although crude 5-year patient survival following kidney transplantation varied substantially across European countries, most of these differences were explained by patient- and country-level factors, such as recipient age at kidney transplantation and national kidney transplantation rate. These findings highlight the importance of accounting for international differences in patient- and country-level factors when benchmarking post-transplant survival. Overall, this study provides valuable insights for identifying areas of improvement and informing policy makers to enhance kidney transplantation success across Europe.

Figure 1. Age distribution of all first kidney transplant adult recipients between 2010 and 2019 by country. The order of countries is based on the percentage of recipients aged 65 years or older. Adapted from: Boenink R, et al. International comparison and time trends of first kidney transplant recipient characteristics across Europe: an ERA Registry study. *Nephrol Dial Transplant.* 2024;39(4):648–58 (2).



For more details, please attend the ERA Registry Symposium on Thursday, June 4, 14:45 - 15:45 (BST), Hall 3A

References:

- Boenink R, Kramer A, Tuinhout RE, Savoye E, Åsberg A, Idrizi A, et al. Trends in kidney transplantation rate across Europe: study from the ERA Registry. *Nephrol Dial Transplant.* 2023;38(6):1528–39.
- Boenink R, Kramer A, Masoud S, Rodríguez-Benot A, Helve J, Bistrup C, et al. International comparison and time trends of first kidney transplant recipient characteristics across Europe: an ERA Registry study. *Nephrol Dial Transplant.* 2024;39(4):648–58.
- Boerstra BA, Pippias M, Kramer A, Dirix M, Daams J, Jager KJ, et al. The evaluation of kidney transplant candidates prior to waitlisting: a scoping review. *Clin Kidney J.* 2025;18(1):fae377.

Temporal trends in comorbidity and mortality among kidney transplant recipients

By Brittany Boerstra, PhD student at the ERA Registry



Over the past two decades, kidney transplantation has gradually been offered to older and more comorbid patients. Although this demographic shift is widely recognized in clinical practice, the supporting evidence remains limited. Only a few studies have described how comorbidities among kidney transplant recipients have evolved over time, and none have examined how these trends relate to trends in mortality.

We used data from four countries/regions in the ERA Registry database, namely Catalonia (Spain), Denmark, France, and Norway, which provided us with individual patient data on comorbidities at the time of waitlisting. Our findings, show a clear increase in both recipient age at transplantation and comorbidity burden at waitlisting between 2005 and 2016. For instance, the proportion of recipients aged ≥ 65 rose from nearly 20% in 2005-2007 to nearly 35% in 2014-2016. Over the same period, the prevalence of diabetes increased from 20% to 24% and cardiovascular disease from 18% to 20%.

We then examined how these changes were reflected in all-cause and cause-specific mortality in the same patients, whom we followed through the end of 2019, before the onset of the COVID pandemic in 2020. Crude analyses reflect outcomes as observed in the population and showed increases in 5-year all-cause and infection-related mortality, while cardiovascular and malignancy-related mortality remained stable. Interestingly, after accounting for changes in recipient characteristics over time, the picture changed: adjusted analyses showed a decline in 5-year all-cause mortality, driven by reduction in cardiovascular and malignancy-related mortality, whereas infection-related mortality remained stable.

Together, these findings show that the rise in crude mortality can be explained by the growing proportion of older and more comorbid recipients over time, rather than an actual rise in individual risk. Once these population changes are considered, results suggest that patient survival after kidney transplantation has improved over time, likely reflecting advances in patient and transplant care. These findings offer important insights into the ongoing discussion regarding the factors driving temporal changes in patient survival following kidney transplantation.

For more details, please attend the presentation on Friday, June 5, 16:00 - 17:00 (BST), Forth Room

References:

- ¹ Boenink et al. International comparison and time trends of first kidney transplant recipient characteristics across Europe: an ERA Registry study. *Nephrol Dial Transplant*. 2023; 39(4): 648–658.
- ² Pippas et al. Access to kidney transplantation in European adults aged 75–84 years and related outcomes: an analysis of the European Renal Association–European Dialysis and Transplant Association Registry. *Transpl Int*. 2018 ;31(5): 540–553.



ERA Registry Activities during the 63rd ERA Congress June 3-6, 2026, Glasgow

REGISTRY COMMITTEE

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Alberto Ortiz, Spain - ERA Renal Science Chair
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PhD student
Anneke Kramer, PhD
Data lead | Medical Informatician
Agnes Liem
Management assistant
Arno Weerstra, MSc
Software Engineer

Chronic Kidney Disease

Thursday, June 4, 8:15 - 9:45 (BST), Focussed Oral, Room 7

- Burden of fatigue in older non-dialysis CKD stage 4-5 patients: 7-year follow-up of the EQUAL study - **Enise Çelebi**

Chronic Kidney Disease

Thursday, June 4, 11:15 - 12:45 (BST), Room M1

- Comparing Age- and Sex-Specific Reference Values of Estimated Glomerular Filtration Rate between the United States and Europe - **Megan Astley**

ERA Registry Symposium

Thursday, June 4, 14:45 - 15:45 (BST), Hall 3A

- Age-related trends in kidney replacement therapy - **Marin Hoekstra**
- Factors behind the varying kidney transplant survival rates in Europe - **Rianne Boenink**

Hypertension & Diabetes

Thursday, June 4, 16:00 - 17:00 (BST), Hall 3A

- Sex differences in incidence and outcomes of kidney replacement therapy - **Vianda Stel**

Dialysis

Friday, June 5, 8:15 - 9:45 (BST), Room M1

- Outcomes After Return to Dialysis Following First Kidney Allograft Loss in Children- results from the ESPN/ERA Registry - **Sevcan Bakkaloglu**

Kidney Transplantation

Friday, June 5, 14:45 - 15:45 (BST), Focussed Oral, Room 11

- Characteristics of kidney replacement therapy patients transferring from paediatric to adult nephrology care in Europe: an ESPN/ERA Registry study - **Iris Montez de Sousa**

Kidney Transplantation

Friday, June 5, 16:00 - 17:00 (BST), Forth Room

- Temporal trends in comorbidities and causes of death in kidney transplant recipients from four European countries: an ERA Registry study - **Brittany Boerstra**

Chronic Kidney Disease

Friday, June 5, 16:00 - 17:00 (BST), Focussed Oral, Room 4

- A comparison of reduced eGFR prevalence between the United States and Europe using the KDIGO and age-adapted eGFR thresholds - **Megan Astley**

Chronic Kidney Disease

Wednesday, June 3 - Saturday, June 6, (moderated e-poster, Research Zone)

- Understanding and overcoming biases in longitudinal research: A guide to using the G-formula for clinicians - **Lorenza Magagnoli**