ESPN Research Grant Application interim report

Title of the project:	
CODIART - Comparison of outcome parameters in pediatric dialysis patients with a prior history of allograft failure and kidney transplant naive ones: An ESPN/ERA Registry Report.	
Principal investigator	**Year of award**
Sevcan A. Bakkaloğlu – ESPN/ERA Registry Travel Grant	2024
Please provide an update of the project since the last report	
The project was carried out between August and October 2025 in Amsterdam at Amsterdam UMC, within the ESPN/ERA Registry Center.	
How has the grant been spent to date and what plans are there for remaining funds?	
The grant has been fully utilized over a 10-week period between August and October 2025 during my visit to Amsterdam. It covered expenses related to travel, accommodation, city tax, and daily living costs.	
Please list any completed/planned publications since last report	
One publication is currently planned.	
Please list any completed/planned presentations since last report	
There is one accepted free communication at the 63rd ERA Congress. My abstract has been selected among the Top 10 abstracts and is the only one chosen from the Dialysis category. I presented this abstract in ERA Registry Meeting in Amsterdam on the 15th of April. I have also submitted this abstract to the 58th ESPN Congress. (see attached abstract – I have revised the title in the abstract) *ERA26-RES-3324 - Outcomes After Return to Dialysis Following First Kidney Allograft Loss in Children-results from the ESPN/ERA Registry*	
When do you anticipate the project directly supported by this grant will be complete?	
Through the support of this grant, the relevant data have been acquired and analyzed, leading to the preparation of abstracts. I intend to finalize the project by November 2026 and submit the resulting manuscript to a high-impact journal.	

An update report is due annually prior to the ESPN congress with a final report on completion of the project or after 3 years (whichever comes sooner).

Abstract N°: 3324
Topic: DIALYSIS
Subtopic: Epidemiology & outcome
submission supported by / on behalf of: ESPN (ESPN/ERA Registry Travel Grant)

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

Sevcan A Bakkaloglu[1], Iris R Montez de Sousa[2, 3], Julien Hogan[4, 5], Marjolein Bonthuis[2, 3, 6], Vianda S. Stel[3, 6]

[1] Division of Pediatric Nephrology, Department of Pediatrics, Gazi University Faculty of Medicine, Ankara, Türkiye, [2] ESPN/ERA Registry, Amsterdam UMC, University of Amsterdam, Department of Medical Informatics, Amsterdam, Netherlands, [3] Amsterdam Public Health, Quality of Care, Amsterdam, Netherlands, [4] Division of Pediatric Nephrology, Robert Debré Hospital, AP-HP, Paris, France, [5] Université Paris Cité, INSERM Unité 970, Paris Institute for Transplantation and Organ Regeneration, Paris, France, [6] ERA Registry, Amsterdam UMC, University of Amsterdam, Department of Medical Informatics, Amsterdam, Netherlands

Background and Aims

Return to dialysis after kidney allograft loss in childhood represents a high-risk clinical transition. However, contemporary large-scale data describing survival and access to re-transplantation in this population remain limited. We aimed to describe the clinical characteristics, outcomes and associated risk factors in paediatric patients who return to dialysis following first kidney allograft loss.

Method

Data on paediatric patients who returned to dialysis following first kidney allograft loss between 2007-2022 were extracted from the ESPN/ERA Registry from 33 countries. Demographic and clinical variables, including transplant-related characteristics and dialysis modality after graft loss, were recorded. Five-year patient survival and access to re-transplantation were evaluated using Kaplan–Meier methods and Cox proportional hazards models adjusted for relevant confounders (see Figure footnote).

Results

A total of 956 children were included. Median age at graft loss was 13.9 years (interquartile range (IQR) 9.7–16.4) and median follow-up after graft loss was 3.5 years (IQR 1.8–6.3). The most common primary renal diseases (PRD) were congenital anomalies of the kidney and urinary tract (41.4%) and glomerulonephritis (20.6%); 6.1% had an unknown diagnosis. Time on kidney transplantation (KT) before graft loss was 3.25 (0.49;7.09) years, 12.7% of patients lost their graft within 7 days and 34% within 3 months after KT. Following graft loss, 683 (71.4%) initiated haemodialysis (HD) and 246 (25.7%) peritoneal dialysis (PD). In 2.9% of the patients, dialysis modality was not specified. After graft loss, HD was the most frequently initiated dialysis modality regardless of the initial KRT, being used in 84.6% of patients previously on HD, 60.3% on PD, and 70.8% of those who had undergone pre-emptive KT.

Overall 5-year patient survival after graft loss was 94.0% (95% CI: 92.0–95.7). In adjusted analyses, shorter graft survival (<3 months) (HR 3.04 (95% CI: 1.51–6.14) and an unknown PRD (HR 5.47, 95% CI 2.23–13.45) were significantly associated with a higher mortality risk after graft loss, whereas pre-emptive KT as initial KRT was associated with improved survival after graft loss (HR 0.21, 95% CI 0.05–0.89) (Figure).

Five-year access to re-transplantation was 63.7% (95% CI 59.5–67.8). After adjustment, male sex

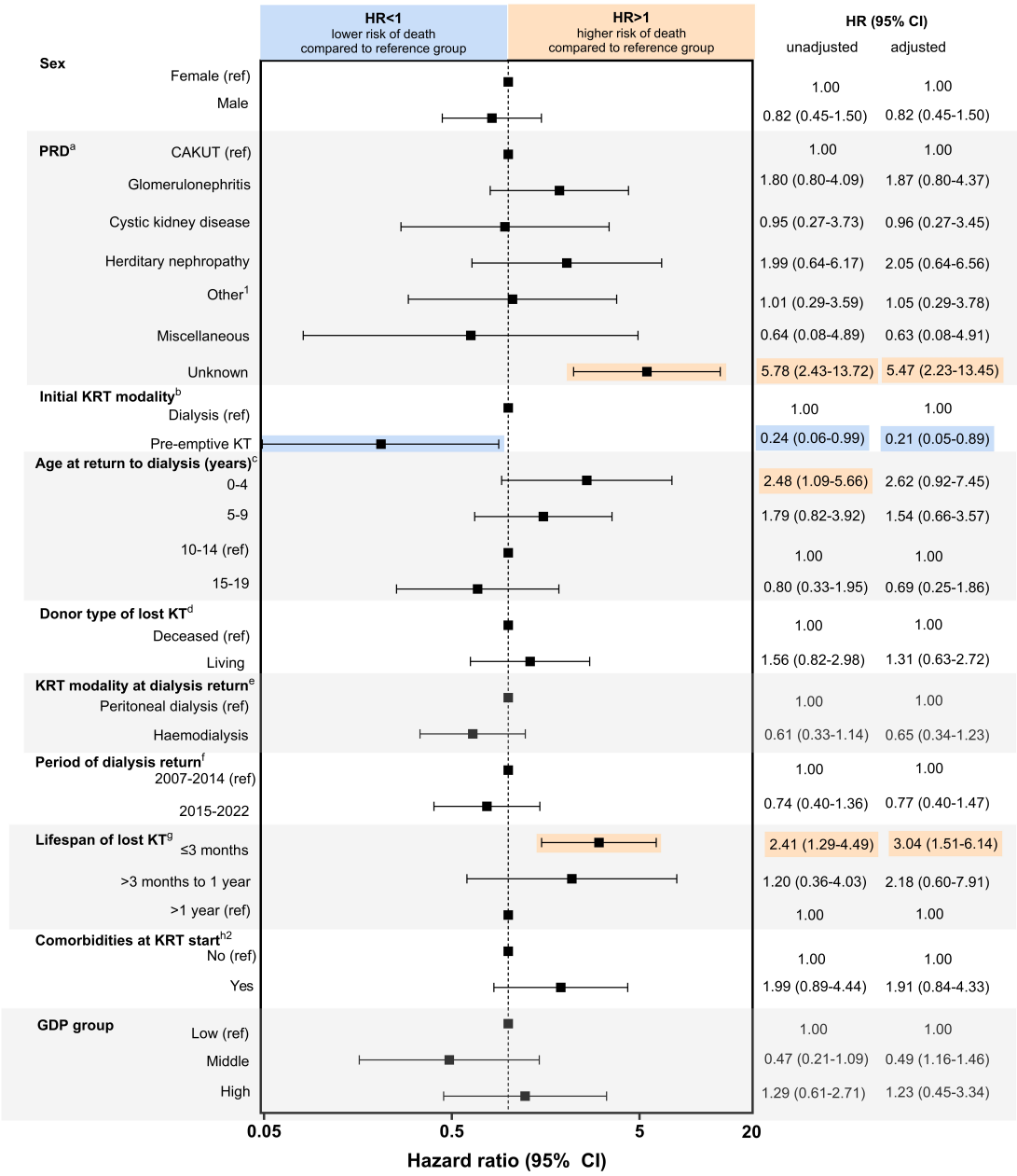
(HR: 1.23; (CI 95%: 1.01-1.50)) and a history of pre-emptive KT (HR: 1.33 (CI 95%: 1.02-1.74)) were significantly associated with a higher likelihood of re-transplantation, while being 15-19 years old (HR: 0.64 (CI 95%: 0.49- 0.83)) was associated with a lower likelihood.

Conclusion

Children returning to dialysis after first kidney allograft loss demonstrated favourable mid-term survival but limited access to re-transplantation, with HD remaining the predominant modality. Unknown PRD was associated with lower survival, whereas pre-emptive KT was associated with both improved survival and greater access to a second transplant, highlighting the importance of comprehensive diagnostic evaluation and timely, pre-emptive transplant strategies. Early graft failure identifies a high-risk subgroup with increased mortality, yet may facilitate earlier re-evaluation and accelerated re-transplantation. Persistent inequities affecting females and late adolescents warrant targeted interventions to ensure equitable access to re-transplantation.

Image

Figure. Hazard ratios for 5-year mortality of paediatric patients who returned to dialysis following the loss of their first kidney allograft unadjusted and after adjustment for potential confounders



All adjusted models contain "country" as random intercept. [a]Adjusted for sex and era of KRT start. [b]Adjusted for sex, PRD and era of KRT start. [c]Adjusted for sex, PRD, donor type of 1st KT, era of graft loss, pre-emptive KT and age at 1st KT. [d]Adjusted for sex, PRD, age at 1st KT, pre-emptive KT and era of 1st KT. [e]Adjusted for sex, PRD, age at graft loss, era of graft loss and lifespan of 1st KT. [f]Adjusted for sex, PRD, age at 1st KT, donor type of 1st KT, pre-emptive KT, age at graft loss and lifespan of 1st KT. [g]Adjusted for sex, PRD, donor type of 1st KT, era of 1st KT, pre-emptive KT and age at 1st KT. [h]Adjusted for sex, PRD and age at 1st KT. [1]Includes ischaemic renal failure, haemolytic uraemic syndrome, metabolic disorders and vasculitis. [2]A total of 550 patients had comorbidity data. Abreviations: KT, kidney transplantation; GDP, gross domestic product; eGFR, estimted glomerular filtration rate, KRT, kidney replacement therapy; HUS, haemolytic uraemic syndrome; CAKUT, congenital anomalies of the kidney and urinary tract; HR, hazard ratio.

Top 10 Abstracts

Abstract Number	Title	Track	Presenter First Name	Presenter Last Name	Presenter Country
ERA26-RES-2600	Transcriptomic Profiling of Autosomal Dominant Polycystic Kidney Disease by Single-Nucleus RNA Sequencing	PHYSIOLOGY, CELL BIOLOGY & GENETIC DISEASES	Yueh-An	Lu	Taiwan, R.O.C.
ERA26-RES-1626	Detection of Anti-Mesangial IgA Antibody–Positive Memory B Cells in tonsils of IgA Nephropathy Patients	GLOMERULAR & TUBULO-INTERSTITIAL DISEASES	Nozomi	Kadota	Japan
ERA26-RES-4063	AUTOANTIBODY AVIDITY MEDIATES PODOCYTE SIGNALING AND PROTEINURIA IN IDIOPATHIC PODOCYTOPATHIES	GLOMERULAR & TUBULO-INTERSTITIAL DISEASES	Simon	Leclerc	Canada
ERA26-RES-2704	In Situ Complementomics For Kidney Diseases	GLOMERULAR & TUBULO-INTERSTITIAL DISEASES	idris	boudhabhay	France
ERA26-RES-3783	Kidney outcomes with GLP1-RA in people with type 2 diabetes already receiving SGLT2-inhibitors: a target trial emulation using UK primary care data.	HYPERTENSION & DIABETES	Thijs	Jansz	United Kingdom
ERA26-RES-1784	CD35-EVs ameliorate sepsis-associated AKI and multi-organ injury by regulating monocyte complosome activation	AKI & CRITICAL CARE NEPHROLOGY	Ning	Li	P.R. China
ERA26-RES-3324	Outcomes After Return to Dialysis Following First Kidney Allograft Loss in Children- results from the ESPN/ERA Registry	DIALYSIS	Sevcan A	Bakkaloglu	Türkiye
ERA26-RES-1479	Kidney-related adverse events associated with intravitreal VEGF-inhibitor use in England: a national cohort study	CHRONIC KIDNEY DISEASE	Jennifer	Lees	United Kingdom
ERA26-RES-2798	Normoalbuminuria and subsequent risks of adverse outcomes in patients with CKD: a nationwide cohort study	CHRONIC KIDNEY DISEASE	Charikleia	Chrysostomou	Sweden
ERA26-RES-3273	Molecular Analogues of Banff 2024 Activity and Chronicity Indices Reveal Early Alloimmune Signals and High-Risk Histology-Molecular Discordance	KIDNEY TRANSPLANTATION	Lukas	Weidmann	Switzerland