REGISTRY

NEWSLETTER - N° 30 - May 2022

Trends in kidney transplant rates in Europe

By Rianne Boenink, PhD student and epidemiologist at ERA Registry

Data from renal registries have shown large international differences in total, deceased and living donor kidney transplant rates (KTRs). Many countries have taken initiatives aiming to increase their KTR, such as early referral of potential organ donors to the ICU transplantation teams or using cross-over donation and chain donation for incompatible donors. On the other hand, countries may also face barriers that affect access to kidney transplantation, like legislation and distrust in the healthcare system.

In an ongoing study, the ERA Registry identified time trends in KTRs in almost all European countries between 2010 and 2018 using both ERA Registry database and the Global Observatory on Donation and Transplantation (GODT) database. The overall KTR in the 40 participating countries combined increased by an average of 1.9% per year from 29.6 per million population (pmp) in 2010 to 34.7 pmp in 2018. In 16 countries (40%) the KTR rose significantly during the study period. Although Norway and Croatia experienced a decreasing trend in the KTR, it was still relatively high at the end of the study period. Spain already had one of the highest KTRs in 2010 and had the highest KTR in 2018 (70.9 pmp).

In addition, the ERA Registry developed the Kidney Transplant Rate Survey in which 89 kidney transplant experts from 39 European countries were asked about initiatives and barriers on kidney transplantation to explain the trends that were observed in this study. According to these experts, middlev and high KTR countries had more measures to increase KTR in force already a decade ago (such as the use of expanded criteria donors) and took more initiatives thereafter to increase the KTR compared to low KTR countries. Moreover, low KTR countries perceived more

barriers. Particularly in low KTR countries, in addition to measures to specifically target deceased or living donation, it is needed to optimize staff, equipment, and facilities to increase the KTR.

The results of the current study may guide the medical community and policymakers on how and where to focus new strategies to increase the number of patients with end-stage kidney disease that can be treated with kidney transplantation.

For more details, please attend the presentation of Rianne Boenink at the ERA Registry symposium S0.2 on Friday 20/05/2022, at 8:00 (CEST).

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The risk of major adverse cardiovascular events in older men and women with advanced CKD - Results from the EQUAL study

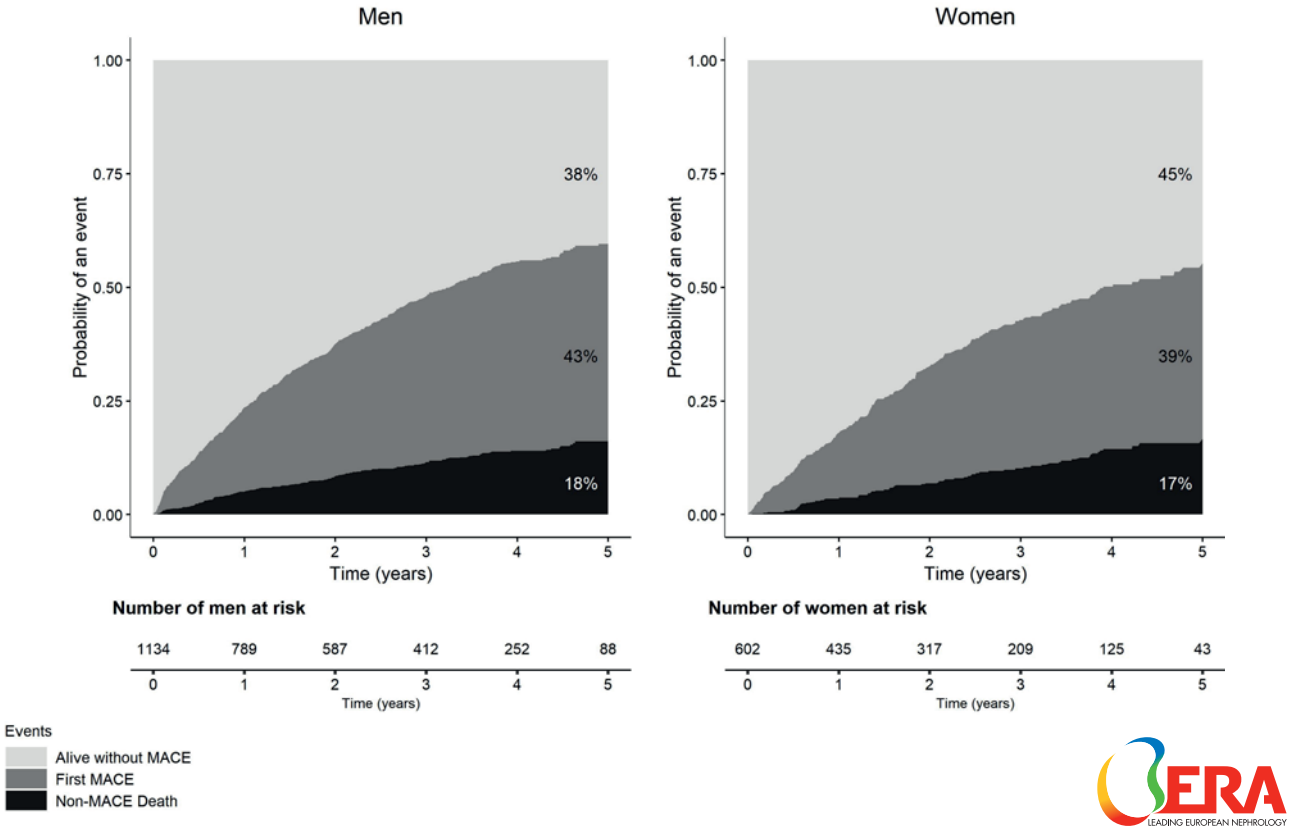
By Megan Astley, PhD student at ERA Registry

In the general population, women are known to have a lower risk of major adverse cardiovascular events (MACE) compared to men. However, due to a lack of studies, and differences in study populations, it remains unknown whether this sex difference can be extrapolated to the CKD population. Additionally, despite the age-related risks seen in older patients, few studies have assessed the sex-specific risk of MACE in CKD patients over the age of 65 that are not yet on kidney replacement therapy (KRT). An understanding of the differences in MACE risks between men and women is necessary in order to improve sex-specific health care in this high-risk population, and potentially to reduce the burden of MACE. Therefore, using data from the EQUAL study, which includes patients ≥65 years from 6 European countries with stage 4-5 CKD not yet on dialysis, we aimed to 1) describe the sex-specific risk of first, recurrent, and fatal MACE and 2) understand the mechanisms underlying these differences.

Our preliminary results show that women have a 18% lower relative risk of a first MACE compared with men during 5 years of follow-up. This sex effect was smaller and non-significant when looking at recurrent and fatal MACE. In patients aged 65-75, the MACE risk difference between men and women was larger than in patients aged >75, suggesting that the protective effect of the female sex may be reduced with increasing age. The differences in MACE risks observed between men and women were attenuated after accounting for pre-existing comorbidities and cardiovascular risk factors, which were more prominent in men, and highlights the importance of reducing the prevalence of modifiable cardiovascular risk factors in CKD patients.

For more details, please attend the session Sex differences in Nephrology - does it matter for patient outcome? on Saturday 21/05/2022, at 17:43 (CEST).

Cumulative incidence competing risk curve for MACE over a 5-year follow up period. Non-MACE death was the competing risk and 'Alive without MACE' included patients who were censored or did not experience MACE or death.



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Methods papers on clinical research a hidden treasure

By Kitty J. Jager, MD PhD, ERA Registry Director

Fifteen years ago the Registry – together with its Chairman at the time Carmine Zoccali – engaged upon writing series of publications on clinical research methods.

This was just after its introductory courses in epidemiology for nephrologists had shown to fulfil a need. The first series including basic subjects like study designs, bias, confounding and regression analysis was published in Kidney International. The idea was to educate nephrologists by accessible papers primarily using nephrology examples that could help them in their efforts to perform clinical research.

After Kidney International series in other journals like NDT, Nephron Clinical Practice, Clinical Kidney Journal and Nephrology Carlton followed, both on basic and advanced topics. Nowadays some of those papers are highly cited, like the ones on sample size calculations and on competing risk analyses1,2.

In case you need to brush up your knowledge in this area, please have a look at our repository. References of more than 60 papers on a variety of topics that were co-authored by Registry staff can be found here as well many educational series from other journals and authors. Should you prefer to participate in an Introductory course on Epidemiology where we lecture and discuss basic principles you will be very welcome to the course in Krakow (Poland) which will be held on June 10-11, 2022. Details on how to register can be found here.

1. Noordzij M, Tripepi G, Dekker FW, Zoccali C, Tanck MW, Jager KJ. Sample size calculations: basic principles and common pitfalls. Nephrol Dial Transplant 2010;25:1388-93.

2. Noordzij M, Leffondré K, van Stralen KJ, Zoccali C, Dekker FW, Jager KJ. When do we need competing risks methods for survival analysis in nephrology? Nephrol Dial Transplant 2013 Nov;28:2670-7.

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59th ERA Congress
May 20, 2022 - 08:00-09:30 (CEST)
Symposium 0.2 - HALL N03

ERA REGISTRY

Chairs: *Kitty J. Jager, Netherlands - Alberto Ortiz, Spain*

1. Results of the European transplant survey: initiatives and barriers affecting kidney transplant rates - *Rianne Boenink, Netherlands*
2. Mortality due to malignancies in children starting kidney replacement therapy after cancer therapy - *Henna Puusaari, Finland*
3. Effect of dialysis initiation on health-related quality of life and symptoms in older patients - *Esther de Rooij, Netherlands*

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