

Is being a refugee associated with increased 30-days mortality after visiting the emergency department? – A register-based cohort study using Danish data

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Background: Refugees face many challenges that could lead to disparity in quality of care from the healthcare system compared with native Danes. These challenges could be language barriers, cultural differences, mental health comorbidities and socioeconomic status (SES). The aim of this study was to compare 30-day mortality of refugees and native Danes after visiting the Emergency Department (ED) at Aarhus University Hospital, Denmark.

Methods: In this register-based cohort study linking clinical and sociodemographics data, we included all visits to a major Danish ED from January 1st 2016 to December 31st 2018. We defined refugee as exposure, which were compared to native Danes. Outcome was defined as 30-day mortality after discharge from the ED. According to the pre-defined analysis plan, non-parametric Kaplan-Meier plots and propensity score-weighted analysis was used to estimate the outcome.

Results: We included 29,257 eligible, unique patients of which 631 were refugees. In the 30-day time period after discharge from the ED 11 deaths occurred in the group of refugees, resulting in a Kaplan Meier estimate of 1.8% (95% confidence interval (CI): 0.7%;2.8%) and 1,638 deaths occurred in the group of Danes, resulting in a Kaplan Meier estimate of 5.9% (95% CI: 5.6%;6.1%). The adjusted 30-day mortality risk difference was 1.6 percentage points (95% CI: -2.0;-1.2 percentage points) lower for refugees compared to native Danes. The 30-day mortality risk difference decreased from approximately 4 to 1.6 percentage points in the adjusted analysis. Thus, there were 16 fewer deaths among refugees within 30 days per 1000 discharged from the ED compared with native Danes when adjusting for age, sex, SES and comorbidities.

Conclusion: This study shows that refugees had a lower 30-day mortality after visiting the ED compared with native Danes