

RESEARCH ARTICLE

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Effects of immigrant status on Emergency Room (ER) utilisation by children under age one: a population-based study in the province of Reggio Emilia (Italy)

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Abstract

Background: The primary aim of this study was to assess the effect of immigrant status on Emergency Room (ER) utilisation by children under age one, considering all, non-urgent, very urgent, and followed by hospitalisation visits. The second aim was to investigate the role played by mother's educational level in the relationship between citizenship and ER utilisation.

Methods: The cohort study included all healthy singleton live births in the years 2008–2009 and residing in the province of Reggio Emilia, followed for the first year of life in order to study their ER visits. The outcomes were the ER utilisation rate for all, non-urgent, very urgent, and followed by hospitalisation visits. The main explanatory variable was mother's citizenship. Other covariates were mother's educational level, maternal age, parity, and child gender. Multivariate analyses (negative binomial regression and zero inflated when appropriate) were performed. Adjusted utilisation Rate Ratios (RR) and their 95% Confidence Intervals (95% CI) were calculated. Trend for age in months by citizenship is depicted.

Results: There were 3,191 children (36.4%) with at least one ER visit in the first year of life. Adjusted RR show a significantly greater risk of ER visit for immigrants than for Italians: (RR 1.51; 95% CI 1.39-1.63). Immigrants also had a higher risk of non-urgent visits (RR 1.72; 95% CI 1.48-2.00) and for visits followed by hospitalizations (RR 1.58; 95% CI 1.33-1.89). For very urgent visits, the immigrants had a slightly higher risk compared to Italians (RR 1.25; 95% CI 0.98-1.59).

The risk of ER visits is higher in the first two months of life (RR_{1st vs 3rd-12th} 2.08; 95% CI 1.93-2.24 and RR_{2nd vs 3rd-12th} 1.45; 95% CI 1.33-1.58, respectively). Considering all visits, the ER utilisation rate was inversely related with maternal education only for Italians (low educational level 44.0 and high educational level 73.9 for 100 children; p value for trend test < 0.001).

Conclusions: Our study observed a higher use of ER services by immigrant children and, to a lesser extent, by children of less educated Italian mothers. In immigrants, the excess is mostly due to non-urgent visits and only slightly to high acute conditions.

Keywords: Emergency, Access, Immigrants, Citizenship, Socioeconomic status, Paediatric care

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