Tuberculosis incidence among migrants: migrant status does matter

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Background: Migrants experience the burden of tuberculosis (TB) in low-incidence countries in Western Europe. Rates of TB in these populations might be influenced by the pattern of migration, but this is not well understood. This study aimed to investigate differences in the risk of TB across migrant groups according to migrant status.

Materials/methods: A cohort study included all migrants over 17 years and obtaining residency in Denmark between 01.01.1993 and 31.12.2015 matched 1:6 to Danish-born individuals. Migrants were divided into groups based on legal status of residency: i) asylum seekers, ii) quota refugees, iii) family reunified to Danish/Nordic citizens, iv) family reunified to immigrants, and v) family reunified to refugees. TB diagnoses were retrieved from the National Reference Laboratory of Mycobacteriology and the National Surveillance Register. Incidence rates (IR) and incidence rate ratios (IRR) of TB were estimated by Poisson regression analyses.

Results: We included 146,257 migrants. Overall, migrants had significantly higher incidence of TB (IR 117/100.000 PYR, 95 % CI 113-123) than Danish-born (IR 4/100.000 PYR, 95 % CI 4-4) with the highest incidence among quota refugees (IR 191/100.000 PYR, 95 % CI 160-227), family reunified to refugees (IR 189/100.000, 95 % CI 170-211) and asylum seekers (IR 152/100.000, 95 % CI 143-162). The adjusted IRR for TB was significantly higher in all migrant groups compared to Danish-born. There was an especially high risk among family reunified to refugees (IRR 57.9, 95% CI 49.5-67.8), quota refugees (IRR 46.5, 95% CI 37.1-58.2) and asylum seekers (44.3, 95% CI 39.3-50.0), whereas the lowest risk was seen among family reunified to Danish/Nordic citizens (IRR 15.9, 95% CI 13.6-18.4) and family reunified to immigrants (IRR 17.2, 95% CI 13.7-21.6) compared to Danish-born.

Conclusions: All groups of migrants experienced significantly higher incidence of TB compared to Danish-born. In particular, family reunified to refugees, asylum seekers and quota refugees had a high risk of TB, suggesting that we should target screening programmes at these high-risk groups.