Reviewer’s report

Title: The role of entry screening in case finding of tuberculosis among asylum seekers in Norway

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Reviewer: Alberto Matteelli

Reviewer’s report:

This is a retrospective cohort study aiming to assess the effectiveness of current TB screening practices among asylum seekers in Norway.

The strengths of the study are the well organised and monitored screening system for asylum seekers and the high proportion of TB cases being diagnosed by microbiological criteria.

Major revisions

The conclusions of the authors derive logically from the study results: careful control of chest x-ray results at entry and strengthening of the programme for diagnosis and treatment of latent TB infection are likely to decrease TB incidence among asylum seekers ion Norway. However, the way data are presented is a little bit confusing. I suggest a different classification of the TB cases identified in the context of this study:

Case diagnosed with 2 months: correctly identified by the screening system for active TB
Case diagnosed 2 – 6 months after immigration: it is conceivable that these cases represent a failure of the screening system.
Cases diagnosed more than 6 months after immigration could result from the failure of the system to diagnose and treat latent TB infection or from the progression of a new infection acquired in Norway. This group of cases is of unknown significance since it strongly depends on the time of follow-up that, in the present study, was as short as two years. Still, this study suggest that all the 13 cases of this group could have been intercepted by the current screening programme.

Overall the performance of the screening system for active TB disease was good, as 15/17 – 88% of the immigrants with active TB at entry were identified. However, significant TB morbidity continues to occur among asylum seekers despite this intervention. The most likely explanation being a failure of the system to diagnose and treat latent TB infection.

The part describing TB cases is less original and based on a limited number of cases.

Minor revisions.
Introduction: the authors do not clearly differentiate between screening for active disease and screening for latent infection.

The methods describe the flow of patients from the National Reception Centre to the specialist; however do not describe the criteria used by the specialist to diagnose active TB and latent TB infection.

Page 4: is country of origin a risk factor for developing active TB disease?

Page 5: the authors state that a case diagnosed with latent TB infection can be offered treatment or follow-up. The authors should provide details on follow-up practices.

Page 9. Results. Please provide detailed figures on timing of TB cases after immigration. Please note that Table 2 is not included, though it is of central importance.

Page 9, results, (and table 3): there is little sense in including abnormal chest x-ray and TST among factors associated with TB diagnosis, since these were used as screening tools.

Page 9 and table 4: the multivariable analysis is difficult to read and probably of little clinical relevance. Consider deleting or justify importance.

Page 10 results: please consider reclassifications of TB cases according to timing of diagnosis.

**Level of interest:** An article whose findings are important to those with closely related research interests.

**Quality of written English:** Acceptable.

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.