

Screening for tuberculosis in asylum seekers: Comparison of chest radiography with an interview-based system

SETTING: Mandatory initial screening of asylum seekers for tuberculosis (TB) in Switzerland, 2004–2005 and 2007–2008.

OBJECTIVE: To compare the yield of screening by chest radiography with an individual assessment based on geographic origin, personal history and symptoms.

DESIGN: Cross-sectional retrospective comparison of two 2-year periods.

RESULTS: The prevalence of detected TB cases was defined as the proportion of screenees starting antituberculosis treatment for culture-confirmed pulmonary TB within 90 days. TB prevalence was 14.3 per 10 000 asylum seekers screened (31/21 727) using chest radiography and 12.4 (29/23 402) using individual assessment.

The sensitivity of radiography was 100% vs. 55% for individual assessment, but its specificity was lower (89.9% vs. 96.0%, respectively). The higher sensitivity of radiography meant shorter delays between screening and start of treatment (median 6 vs. 25 days). Its lower specificity led to a larger proportion of screenees needing further investigations for suspicion of TB (12% vs. 4%).

CONCLUSION: The interview-based system initially missed more cases, but the ultimate 90-day yield was comparable for the two periods. The main difference is the delay until start of treatment, which potentially increases transmission and secondary cases. The radiograph system was more burdensome to both the health care system and the screenees, as more suspects required further investigations.