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**Systematic active tuberculosis screening in asylum seekers in the Emilia Romagna region, Italy**

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**Background:** Global migration due to conflict or humanitarian crisis has dramatically increased in recent decades. The high flow of migrants arriving from high tuberculosis (TB) incidence countries to lower TB incidence European ones raises concerns of TB transmission among migrants/asylum seekers. Different screening algorithms for TB have been proposed and utilized in European area. However, few countries use a nationally-standardized screening algorithm. We report one-year data of active TB-screening of migrants (hereafter intended as asylum seekers) performed in an Italian reception centre located in Bologna, Emilia Romagna Region, Northern Italy

**Material/methods:** An active TB screening to all migrants arriving to the regional hub in Bologna is being implemented since August 2014. A mobile chest X-ray machine was installed inside the reception centre and all the individuals who agree to be registered in Italy undergo chest X-ray the day after their arrival to the centre, regardless the presence of TB suggestive symptoms. The X-rays are read by experienced radiologists within three days: in case of abnormal X-ray, the hub's medical doctor and the infectious diseases specialist decide patient's management (i.e. performing chest high resolution computed tomography, collection of respiratory specimens, admission to hospital). All children <5 years are excluded from the X-ray screening and rapid pregnancy test is administered to all women in fertile age before chest X-ray. An individual questionnaire collecting travel history, general clinical conditions, and presence of TB suggestive symptoms is filled with the aid of cultural mediators.

**Results:** From August 2014 to July 2015, 3366 individuals were screened for active TB with chest-X ray. Overall, 18 individuals were diagnosed with TB: all were males, mean age was 25 year (range 17-38); 84% (n=15) were from West Africa while the others from Indian subcontinent. Overall, 94% (n=17/18) of patients were affected by pulmonary TB, while 1/18 had extra-pulmonary TB. Six patients (33%) were completely asymptomatic at diagnosis.

**Conclusions:** These preliminary findings reveal a post-entry screening prevalence rate of 535/100,000 individuals screened (18/3366) and a number of needed to screen (NNS) equal to 187. The high proportion of asymptomatic cases (33%) detected by chest X-ray shows the higher sensitivity of chest X-ray compared to screening based on patient-reported symptoms. The to our knowledge this is the first report of results of active TB screening using chest X-ray as first line test implemented in Italy. It will be essential to continue monitoring TB screening results and share all Italian hubs' findings to identify the most appropriate screening approach for early identification of TB among migrants' target group.