

## LETTER

## Rethinking TB screening: politics, practicalities and the press

In support of the urgent need for improvements to new entrant TB screening,<sup>1</sup> which must encourage the diagnosis of both active and latent forms of TB, we would like to offer two audits of new entrant screening from an area with a low TB incidence (4.3/100 000).<sup>2</sup>

In 2006, we audited 29 new entrant referrals, all of whom had a chest x-ray reported by the Port Health Control Unit at Heathrow Airport as 'abnormal' (predominantly hilar calcification).<sup>3</sup> Of the 29 referrals, 22 attended for local screening. Each received a tuberculin skin test (TST) and a repeat chest x-ray that was reported by a respiratory consultant and then by a consultant radiologist. Sixteen (73%) were subsequently reported as having a normal chest x-ray (and negative TST).

While the practical difficulties of screening large numbers of new entrants at the point of entry (in a short space of time) are high, inaccurate reporting of chest x-rays results in wasted resource and a financial burden that is passed on to both the new entrant and local TB services through the need for repeated screening.

Further, the NICE new entrant TB screening guidelines (2006)<sup>4</sup> allow certain groups of new entrants to be screened solely via chest x-ray (CXR), limiting a TST to all those aged 0–15 and those aged 16–34 from sub-Saharan Africa. As the authors highlight, this potentially under-diagnoses the latent TB infection (LTBI).

To investigate this, we undertook a retrospective case-note analysis of 547 new entrants over a 44-month period (2006–2009).<sup>5</sup> All patients were invited for screening using a locally adapted 'Dorset' algorithm that combined CXR and TST unless contra-indicated. Each case was then re-evaluated using the NICE algorithm. This allowed direct comparison of each algorithm's ability to detect LTBI. Results: 397 (72%) new entrants attended screening, 41 (10.3%) patients were diagnosed with LTBI (all HIV negative). Comparison of the algorithms showed that only 27/41 cases (65.8%) were detected when using the NICE algorithm. This represents a 34.1% shortfall in LTBI detection when following NICE guidance (95% CI 19.63% to 48.67%, 99% CI 15.04% to 53.26%).

The results from these two audits lend strength to the authors' argument that over-reliance on CXR alone is inadequate; combination screening with TST or IGRAs should be considered. There remains a need for a robust national screening strategy that promotes the detection of latent as well as active tuberculosis.

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**Competing interests** None.

**Provenance and peer review** Not commissioned; not externally peer reviewed.

Accepted 2 December 2010

Thorax 2011; 65:1. doi:10.1136/thx.2010.152868

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