

Immigrant screening misses majority of imported latent TB, finds study

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Current UK procedures to screen new immigrants for tuberculosis (TB) fail to detect more than 70 per cent of cases of latent infection, according to a new study published in *The Lancet Infectious Diseases*.

TB is caused by a [bacterial infection](#) which is normally asymptomatic, but around one in 10 infections leads to active disease, which attacks the lungs and kills around half of people affected.

Today's research showed that better selection of which [immigrants](#) to screen with new blood tests can detect over 90 per cent of imported latent TB. These people can be given a course of [antibiotic treatment](#) to prevent them from developing the active form of the disease. This would reduce both the spread of the disease and the health costs of treating people with active TB.

The incidence of TB has risen dramatically in Britain over the last decade, increasing by almost 50 per cent between 1998 and 2009. Much of this increase has been driven by a 98 per cent increase in cases among people who move to the country from overseas. Foreign-born individuals account for nearly three quarters of the country's TB cases, and have a 20 times higher incidence of TB than people born in the UK.

The current UK policy requires that all immigrants from countries with a TB incidence higher than 40 in 100,000 per year have a chest X-ray on arrival to check for active TB, although very few immigrants have active TB on arrival. However, a substantial proportion of immigrants are

carriers of latent TB which though initially silent and non-infectious, often progresses to full-blown, infectious active TB within a few years of arrival in the UK.

The research team from Imperial College London analysed results from over 1,200 recent immigrants at centres using new blood tests to screen for latent TB in London, Leeds and Blackburn.

The investigators found that a fifth of recent immigrants from the Indian Subcontinent and almost 30 per cent from Sub-Saharan Africa are carriers of latent TB and that national screening policy, which does not include immigrants from the Indian Subcontinent, has been missing 70 per cent of imported latent TB.

The researchers also assessed how cost-effective it would be to lower the threshold so that people from more countries are screened. They found that including immigrants from the Indian Subcontinent for screening would detect 90 per cent of latent TB cases, and would cost little more than what is spent on screening now, relative to the number of active TB cases prevented.

Professor Ajit Lalvani, Director of the Tuberculosis Research Unit at Imperial College London, who led the study, said: "Our findings indicate that immigrants arriving in the UK from countries with high burdens of TB have a high prevalence of latent tuberculosis infection, which is strongly associated with tuberculosis incidence in their country of origin.

"UK national guidance for which groups to screen has hitherto missed most immigrants with latent infection. We've shown that by changing the threshold for screening, and including immigrants from the Indian Subcontinent, we could pick up 92% of imported [latent TB](#).

"By treating people at that early stage, we can prevent them from

developing a serious illness and becoming infectious. Crucially, this wider screening could substantially reduce TB incidence while remaining cost-effective. Our findings provide the missing evidence-base for the new national strategy to expand immigrant screening."

More information: M. Pareek et al. "Screening of immigrants in the UK for imported latent tuberculosis: a multicentre cohort study and cost-effectiveness analysis." *The Lancet Infectious Diseases*, published online 22 April 2011." *The Lancet Infectious Diseases*, published online 22 April 2011.

Provided by Imperial College London

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