Response to Holzman et al's Evaluation of the latent tuberculosis care cascade among public health clinics in the United States

Authors:

Katherine M Gaskell[1]
Timesh D Pillay[2]
James Brown[3]
Moerida Belton[4]
Stephen O Mepham[5]
David AJ Moore[6]
Marc Lipman[7]

Affiliations
1.Department of Clinical Research, LSHTM, London, UK kate.gaskell@lshtm.ac.uk
Funding Source: Wellcome Trust Clinical PhD Scheme
2. Department of Infectious Diseases Imperial College London. The Francis Crick Institute, London, UK timesh.pillay@crick.ac.uk
3. Respiratory Medicine Department, Royal Free Hospital, London, UK james.brown13@nhs.net
4. Respiratory Medicine Department, The Whittington Hospital, London, UK moerida.belton@nhs.net
5. Microbiology and Infectious Diseases Department, Royal Free Hospital, London, UK smepham@nhs.net
6. Department of Clinical Research, LSHTM, London, UK
The Hospital for Tropical Diseases, University College Hospital London, London, UK David.moore@lshtm.ac.uk
7. UCL -TB research Group, University College London, London, UK
Respiratory Medicine Department, Royal Free Hospital, London UK marclipman@nhs.net

Corresponding Authors
KMGaskell kate.gaskell@lshtm.ac.uk
MLipman marclipman@nhs.net

Dear Editor,

We note with interest the article from Holzman et al (1), which is an important and clinically useful piece not only for the USA but also many other countries with low TB incidence and latent TB infection (LTBI) screening programs. We applaud their endeavours using large scale, 'real world' public health LTBI data collection, collation, and analysis, and believe this needs to be replicated elsewhere.

We would be interested to have the authors comment on the following:

Though the stated study objective was to quantify the 'LTBI care cascade….and identify factors associated with failure to complete each cascade step' only limited data were presented on those associated with loss at every step. We appreciate, and the authors acknowledged, the difficulty of assessing the impact of more than demographic and clinical factors, such as potentially modifiable within-system factors, yet they could report these from one site with a particularly high proportion of pre-employment assessments. Might it be possible to obtain these for other populations and study sites, and so improve the applicability of their findings for other public health services elsewhere? This would be particularly helpful in regard to their data on the homeless who had very low levels of treatment initiation and completion.

Adherence measured by clinic-recorded initiation of LTBI treatment will inherently overestimate true adherence. Thus, despite the authors' useful analysis by drug regimen, it is difficult to draw conclusions from the current data on treatment effectiveness.

Is LTBI treatment free for all populations studied? A fee barrier amongst some groups would clearly affect the LTBI cascade and alter interpretation of these results.

In the presented methods the split of prospective to retrospective data collection and source-site distribution is unclear but important. Interpretation would alter significantly if, for example, all the employment screening data were retrospectively collected.

Finally, a reported 7,228 of 10,962 included US-born patients had no indication for testing and, as we would expect, had a lower rate of LTBI (2% versus 6%). Pre-employment screening, which the authors acknowledge is in low-risk individuals, comprises 59% of US-born and 26% of the non-US born patients included. We would be interested to see a subgroup analysis that excludes low-risk populations, primarily those from pre-employment screening. The current grouping may misrepresent the treatment cascade for high-risk populations that clinicians are most likely to consider when using this publication to assess and improve their programmes.

The data presented by Holzman *et al* add to our understanding of the implementation of TB preventive therapy. Future work should explore specific barriers to uptake of LTBI treatment and how resources can be more effectively focussed on high-risk groups. In addition, there is a need for high-quality prospective data on adherence to LTBI therapy and how this affects future risk of TB disease.

## Notes


### Funding

Authors report no funding related to this work.


### Potential conflicts

KMG reports support unrelated to this work: Wellcome Trust, grant number 210830/Z/18/Z. None of the other authors have any conflicts of interest to declare

### References


1. Holzman SB, Perry A, Saleeb P, Pyan A, Keh C, Salcedo K, et al. Evaluation of the Latent Tuberculosis Care Cascade Among Public Health Clinics in the United States. Clin Infect Dis. 2022 Apr 1;ciac248.