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**Response to Clinical care for patients with post TB lung disease**

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Dear Editor,

The correspondence by Günther and Ithete highlights a number of important issues in post-tuberculosis lung disease (PTLD), many of which were discussed in the forums of the First International Post-TB Symposium in Stellenbosch, South Africa ([www.post-tuberculosis.com](http://www.post-tuberculosis.com)).1 They add their voice to the call for guidelines on the management of PTLD, despite the lack of robust evidence, to assist non-specialists who are tasked with the clinical care of the vast majority of these patients. Interestingly, at the Symposium, patient advocates were most vocal on the urgent need for such guidelines, largely driven by personal experiences in healthcare service, whereas clinician/scientists were perhaps more reticent to advise without evidence. Clearly a balance is needed, and pragmatic, expert-driven guidelines are required. The Union Against Tuberculosis and Lung Disease Post-Tuberculosis Working Group have taken on this task of compiling post-TB management guidelines, which will need to remain fluid and responsive in nature and acknowledge limitations, until evidence is available.

There has been much debate about the burden of PTLD and where it should rank in priority on the global list of chronic lung diseases (CLD). The sheer burden of PTLD seen by clinicians working in high-burden tuberculosis areas, can be under-estimated by those in low-burden settings, and we have suggested that PTLD may be among the most important causes of CLD globally.2 Perhaps this reflects our natural bias, but it certainly is interesting to see in the above correspondence, that in Namibia, a sub-Saharan country with a population of approximately 2.5million and the 6th highest incidence of tuberculosis per population3, PTLD outranks all other CLDs in this specialised respiratory clinic. Naturally, this may not be representative of the whole population, but gives valuable insight into the origins of respiratory symptoms, in this African population seeking care. Epidemiological and modelling data are much needed to inform disease burden estimates on a regional and global basis.

Günther and Ithete go further to describe some of the shared difficulties clinicians encounter in PTLD management, foremost being differentiating PTLD exacerbations from tuberculosis recurrence, and correctly highlight the difficulties in overreliance of Xpert® MTB/Rif. One possible solution would be obtaining a chest X-ray (and lung function where possible) in patients completing tuberculosis treatment as part of National Tuberculosis Programmes. This dovetails nicely with calls for earlier surveillance and diagnosis of PTLD at the end of treatment, but has the added advantage of providing clinicians a baseline against which future presentations to clinical services can be measured, with the potential for improving decision making and reducing the number of unnecessary “trials of empiric tuberculosis treatment” in patients with PTLD. Exactly when these baseline tests should be performed is more controversial. Although end of treatment is a natural patient contact opportunity, changes can occur in the lungs up to a year after treatment completion,4,5 and argument can be made for assessment at 6 months or even 12 months.

We thank these authors for sharing their experience and collecting and publishing this data under what is undoubtedly difficult clinical conditions.

REFERENCES:

1. Allwood B.W., van der Zalm M., Amaral A. F. S., et al. Post-tuberculosis lung health: perspectives from the First International Symposium. Int J Tuberc Lung Dis 24(8):820-828.
2. Allwood B, van der Zalm M, Makanda G, Mortimer K; Steering Committee of the First International Post-Tuberculosis Symposium. The long shadow post-tuberculosis. Lancet Infect Dis. 2019 Nov;19(11):1170-1171.
3. World Health Organization. Global Tuberculosis Report 2020. Available at: <https://www.who.int/publications/i/item/9789240013131> (accessed 3 Dec 2020).
4. Allwood B.W., Maasdorp E, Kim G .J. et al. Transition from Restrictive to Obstructive Lung Function Impairment During Treatment and Follow-Up of Active Tuberculosis. Int J of Chronic Obstruct Pulmon Dis. 2020:15 1039–1047
5. Meghji J, Lesosky M, Joekes E, Banda P, Rylance J, Gordon S, Jacob J, Zonderland H, MacPherson P, Corbett EL, Mortimer K (joint senior), Squire SB. Patient outcomes associated with post-tuberculosis lung damage in Malawi: a prospective cohort study. Thorax 2020 Mar;75(3):269-278.