

Patients with presumed tuberculosis in sub-Saharan Africa that are not diagnosed with tuberculosis: a systematic review and meta-analysis

Jayasooriya S, Dimambro-Denson F, Beecroft C, Balen J, Awokola B, Mitchell C, Kampmann B, Campbell F, Dodd P*, Mortimer K*

Background

The differential access to high quality diagnostics experienced in most low- middle- income countries illustrate important and growing global health disparities.¹

57% of global pulmonary tuberculosis cases are bacteriologically confirmed, the rest are clinically diagnosed with negative or no bacteriological testing.² A proportion of patients with presumed tuberculosis are found not to have tuberculosis, following both bacteriological and clinical investigation.³

The burden of ill-health in patients with presumed tuberculosis subsequently found not to have tuberculosis and their on-going engagement with health systems has been largely overlooked.



Aim

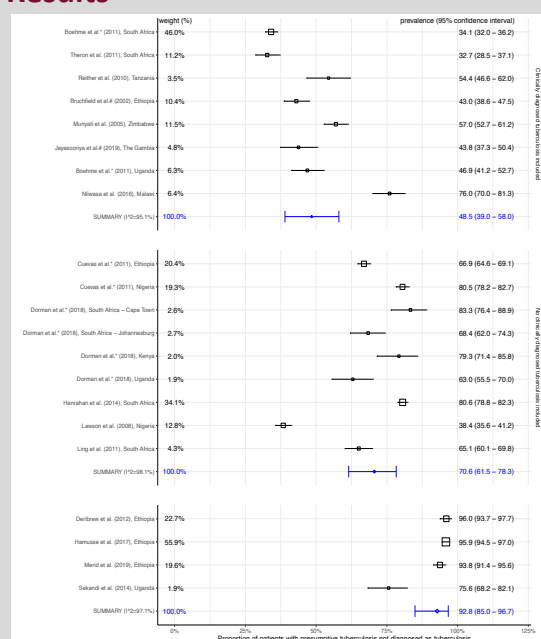
To undertake a systematic review and meta-analysis of the evidence describing the number and nature of alternative final diagnoses among patients with presumed tuberculosis in sub Saharan Africa

Methods

We searched four databases on April 27, 2020. We included all adult pulmonary tuberculosis diagnostic studies from sub-Saharan Africa, excluding case series and inpatient studies. We conducted a random-effects meta-analysis to obtain pooled estimates stratified by passive and active case finding.



Results



The proportion of patients with presumed tuberculosis found not to have tuberculosis was lower in passive case finding studies that included clinically diagnosed cases compared to those that did not and active case finding studies.

Only five studies reported diagnoses other than active tuberculosis, with only two in any depth.

Conclusion

Nearly half of all patients with presumed tuberculosis in sub-Saharan Africa are subsequently found not to have tuberculosis, with few receiving any alternative diagnoses.

Patients with symptoms suggestive of tuberculosis who may eventually receive an alternative diagnosis represent a major unmet need in sub-Saharan Africa

Patients with presumptive tuberculosis require better characterisation through research to develop health system solutions to meet their needs.

References

1. Meghji J, Mortimer K, Agusti A, et al. Improving lung health in low-income and middle-income countries: from challenges to solutions. *Lancet* 2021;397:928-40.
2. WHO. Global Tuberculosis Report: executive summary 2020.
3. Jayasooriya S et al. The burden of non-TB lung disease presenting to TB clinics in The Gambia: preliminary data in the Xpert((R)) MTB/Rif era. *Public health action* 2019;9:166-8.