

'You can save a life if we get those algorithms right'. A multi-country mixed-methods evaluation of new paediatric TB diagnostic algorithms

Sofia Payotte, Epicentre, France; Giulia Scarpa, Epicentre, France

Background

Under-diagnosis of tuberculosis in children remains a major concern worldwide. The World Health Organization (WHO) recommends two new treatment decision algorithms for TB in children less than 10 years presenting with presumptive pulmonary TB. The algorithms are adapted to contexts with, and without radiography, include laboratory testing if available, and aim to facilitate treatment decision by assigning scores to symptoms and radiological features. However, little is known about the feasibility and acceptability of implementing these algorithms in Sub-Saharan Africa settings.

Methods

Using a qualitative study design, we conducted 45 semi-structured interviews with health workers in nine health facilities in Uganda, Niger and Guinea. We analyzed the data thematically, and using the critical discourse analysis with a deductive and inductive approach to identify contextual barriers and acceptance of the intervention among health workers.

Results

Firstly, discourse analysis shows that health workers identify various socio-cultural factors (e.g.: delays in children arriving at health facilities, stigmatization) and structural factors (e.g. high workload for health workers, lack of resources in the health centres) as the major barriers that make TB diagnosis difficult. In this context, implementation of the algorithms is positively perceived (e.g.: the scoring system was found to be useful and user-friendly) but raises some challenges (e.g.: additional paperwork). Otherwise, results shows that the implementation of the algorithms plays a role in strengthening health worker's sense of autonomy and efficiency, and some paramedical staff (nurses) express the wish to be more directly involved in applying the algorithms.

Conclusion

This study found that the new TB algorithms were perceived positively by health workers, and well accepted in the three countries. However, it illustrates the extent to which the implementation of innovative tools in healthcare structures needs to consider the existing system, potential barriers, and opportunities to ensure long-term use.

The new WHO algorithms to diagnose TB in children are user-friendly for health workers. However, several structural and socio-cultural factors influence their longer-term use.

