

Background

Two new WHO-recommended Treatment Decision Algorithms for pulmonary TB in children.

Methods

Multi-country prospective diagnostic accuracy study.

Niger, Nigeria, Guinea, South Sudan, and Uganda



- Inpatients and outpatients
- Primary health care, hospitals
- Nutritional centres
- HIV services



Children under 10 years with signs and symptoms of pulmonary TB

Clinical exam, GeneXpert MTB/RIF, TB-LAM, history of contact with TB, chest X-ray, clinical or clinical-radiological algorithm score



Results

Median age : 1.7 years (IQR: 0.8-3.0)

Female: 856 (46%)

Hospitalized: 1262 (68%)

Severely malnourished: 1152 (62%)

Living with HIV: 210 (11%)

The diagnostic accuracy of the algorithms was high



Sensitivity: 90.0%
(95%CI: 87.3-92.7)

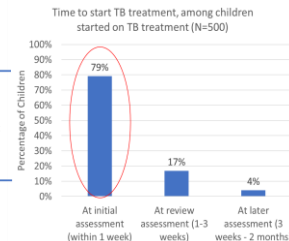
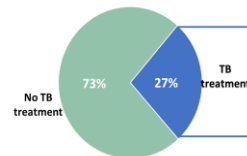


Specificity: 85.4%
(95%CI: 83.5-87.2)

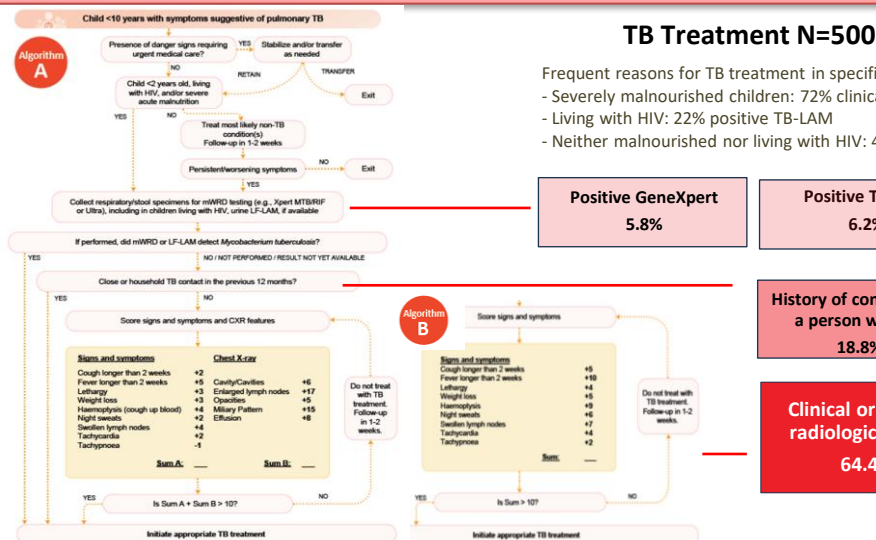
Reference standard based on the International Consensus NIH Definitions for Intrathoracic TB in children (Graham et al. CID 2015)

N=1846 children enrolled

The majority of children diagnosed within the first week of assessment



Clinical and clinical-radiological algorithms scores along with history of TB contact were the main reasons for TB treatment decision



Positive GeneXpert
5.8%

Positive TB-LAM
6.2%

History of contact with a person with TB
18.8%

Clinical or clinical-radiological score
64.4%

Diagnostic Accuracy of New Treatment Decision Algorithms for TB in Children: A Multi-Country Diagnostic study

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