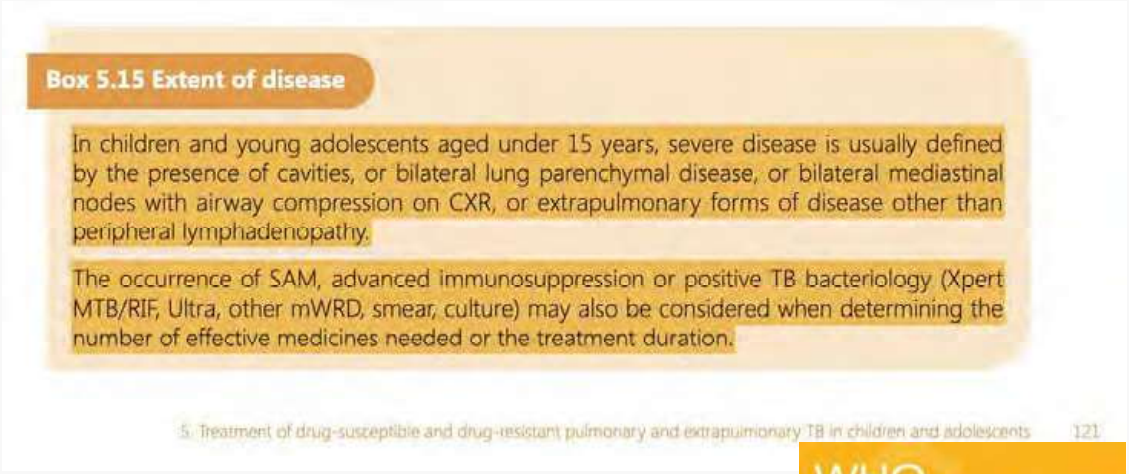
Additional considerations

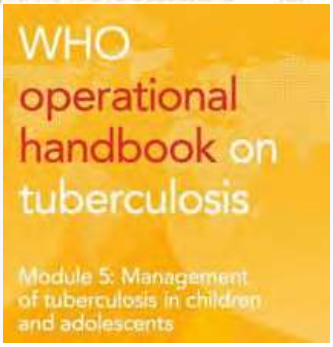


Box 5.15 Extent of disease

In children and young adolescents aged under 15 years, severe disease is usually defined by the presence of cavities, or bilateral lung parenchymal disease, or bilateral mediastinal nodes with airway compression on CXR, or extrapulmonary forms of disease other than peripheral lymphadenopathy.

The occurrence of SAM, advanced immunosuppression or positive TB bacteriology (Xpert MTB/RIF, Ultra, other mWRD, smear, culture) may also be considered when determining the number of effective medicines needed or the treatment duration.

5. Treatment of drug-susceptible and drug-resistant pulmonary and extrapulmonary TB in children and adolescents 121

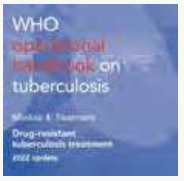


- PNG TB-HIV co-infection rate is ~8% - shows that kids are sick
- Malnutrition rates based off Dr. Landi study ~45%
  - This means up to 50% of our kids cannot get on the WHO shorter regimen

Additional considerations

- Children with non-severe disease only need 6-9 months of treatment
- Severe disease is 9-12 months
- Trying to determine severe disease vs non-severe disease. Is this adding additional complexity to healthcare workers in our setup, particularly in peripheries?
- Duration of therapy: is it 6 months or 9 months or or 12 months? Is it extended for 18 months…Can we just pick one?

The Linezolid balancing act



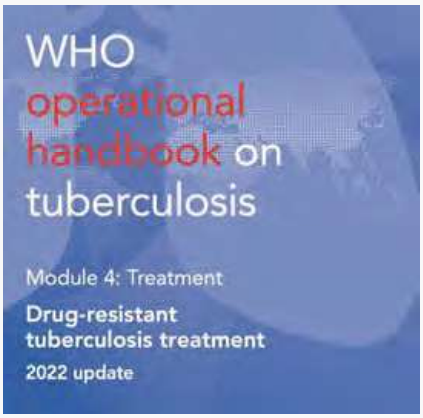
- Optic neuritis and peripheral neuropathies tend to be reported AFTER 2 months of treatment.
- Myelosuppression is dose dependent and occur during the first 2 months of exposure to the drug

- We were using LZD for 18 months. Some children with eye problems. Hard to monitor in peripheries.
- *Use of linezolid for at least 6 months was shown to increase effectiveness, although toxicity may limit its use. The analysis suggested that using linezolid for the whole duration of treatment would optimize its effect (about 70% of patients on linezolid with data received it for more than 6 months, and 30% for 18 months or the whole duration)*[1]
  - This refers to the “long 18 month regiment”.

What about Bedaquiline > 6 months???

- The clinicians may therefore consider continuing bedaquiline for longer than 6 months and adding some flexibility for regimen design and the number of effective drugs (Page 48)
  - Pertains to "longer regimen"

- The recent data review for the WHO consolidated guidelines (1) suggested no additional safety concerns for the use of bedaquiline beyond 6 months, used concurrently with delamanid or in pregnancy- safe to use



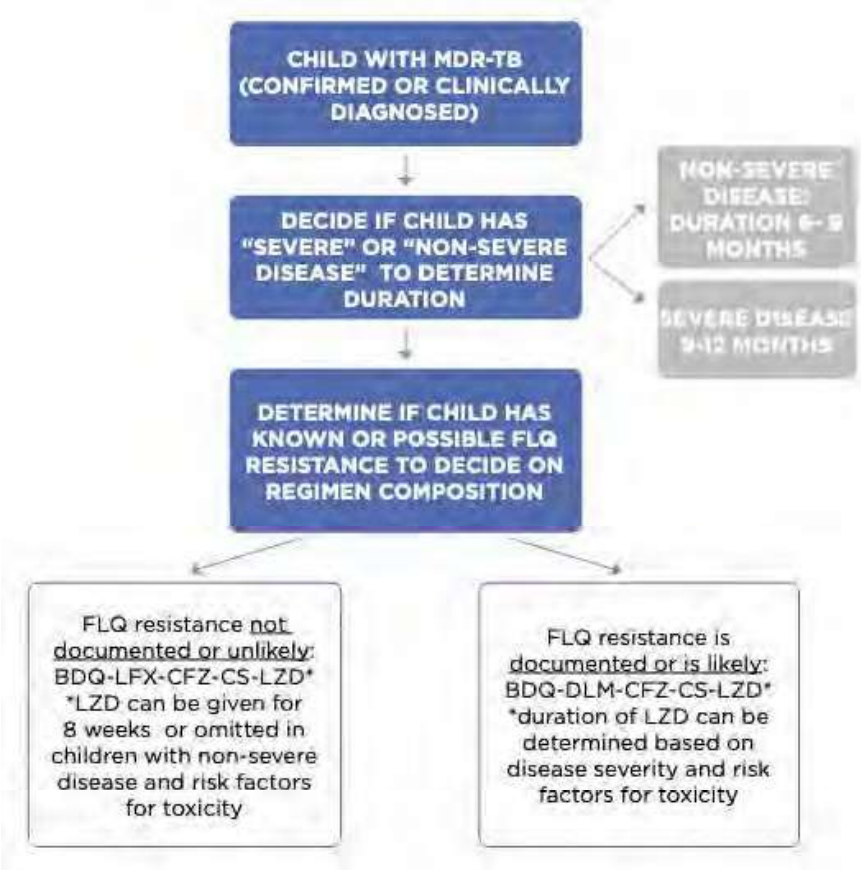
[1] *WHO Module 4 DRTB treatment 2022. Operational Handbook. P. 48*

Consensus recommendation for DRTB treatment for children in PNG – The Paediatric Society of Papua New Guinea

SEPT 2023 & Nov 2023

Ok thanks for that information – can it be summarized IN ONE SLIDE what we should do for PNG children

yes



Practical guidance

Management of Multidrug-Resistant Tuberculosis in Children:

A FIELD GUIDE

Fifth Edition, March 2022

2022

Key updates to the treatment of drug-resistant tuberculosis

Rapid communication

June 2024

WHO suggests the use of a 6-month treatment regimen composed of bedaquiline, delamanid, linezolid (600 mg), levofloxacin, and clofazimine (BDLLfxC) in MDR/RR-TB patients with or without fluoroquinolone resistance(conditional recommendation, very low certainty of evidence).

Recommendation – BEAT-TB regimen

WHO suggests the use of a 6-month treatment regimen composed of bedaquiline, delamanid, linezolid (600 mg), levofloxacin, and clofazimine (BDLLfxC) in MDR/RR-TB patients with or without fluoroquinolone resistance

(Conditional recommendation, very low certainty of evidence)

Remarks

This recommendation applies to the following:

a. People with MDR/RR-TB or pre-XDR-TB (MDR/RR-TB and resistance to fluoroquinolones)
b. People with MDR/RR-TB and less than one month of previous exposure to bedaquiline, linezolid, delamanid, or clofazimine. When exposure is greater than one month, these patients may still receive the regimen if resistance to the specific medicines with such exposure has been ruled out
c. People with diagnosed pulmonary TB, including **children, adolescents, PLHIV, pregnant and breastfeeding women**
d. People with all forms of extrapulmonary TB except for TB involving the CNS, osteoarticular, or disseminated forms of TB with multi-organ involvement
e. **Children and adolescents without bacteriological confirmation of TB or resistance patterns but with a high likelihood of MDR/RR-TB** (based on clinical signs and symptoms of TB, in combination with a history of contact with a patient with confirmed MDR/RR-TB)

SLIDES CREDIT DR. SABINE VERKUIJL WHO