## TECHNICAL ASSISTANCE REPORT

**Country:** Myanmar  
**Dates of TA provision:** June 5, 2020  
**Consultant(s):** Anthony Garcia-Prats  
**Clearance of the report**  
The content of the report has been fully cleared by the National Tuberculosis Program, Myanmar.  
**Sharing of the report**  
1. The report has been shared with The Global Fund Portfolio Manager, Myanmar and the TGF GLC Focal Point.  
2. In-country circulation of the report done via WHO Country office in Myanmar.  
**TA coordination**  
rGLC/SEAR Secretariat and WHO Country office Myanmar  

### Summary of the TA provided

A training on the care of children with rifampicin-resistant tuberculosis (RR-TB) was held virtually on June 5, 2020. Approximately 150 participants attended the training. The training was a comprehensive overview of pediatric RR-TB and covered the following topics and key concepts:

1. **Pathogenesis and disease manifestations** – children tend to have paucibacillary TB which makes confirming a diagnosis more difficult, that young children are at high risk for rapid progression to disease after infection, and that children usually have transmitted (acquired) drug-resistance with a high strain concordance with their identified source cases.

2. **Epidemiology of childhood MDR-TB** – children have the same or higher setting-specific risk of RR-TB as treatment naïve adults; approximately 5-10% of RR-TB cases would be expected to be in children, with 30-50% of those having a microbiologically confirmed diagnosis. Based on information provided ahead of the training, last year <2% of RR-TB cases in Myanmar were in children and >90% of these were microbiologically confirmed.

3. **Diagnosis of RR-TB** – children should be diagnosed with RR-TB if they have a microbiologically confirmed diagnosis or if they have clinical TB with an exposure to an RR-TB case.

4. **Treatment of RR-TB** – children should be treated according to the drug-susceptibility of their own isolate if identified, or according to the drug-susceptibility of their most likely source case; child-friendly formulations of most 2nd-line drugs are available and should be procured and used in children as a priority; recommendations for pediatric use of bedaquiline and delamanid are rapidly evolving.

5. **Adverse effects, monitoring, other issues** – careful monitoring of clinical indicators of treatment response such as resolution of symptoms and weight gain are critical; safety monitoring should largely follow the same approach as in adults.

6. **Active contact tracing and preventive therapy** – a fluoroquinolone-based preventive therapy regimen can be considered for high-risk contacts of RR-TB such as young children, but high quality evidence on such a strategy from randomized controlled trials is only expected in 2021-2; all child contacts of RR-TB cases should be evaluated and followed-up.

Following this presentation, case histories of children diagnosed and treated for RR-TB were presented and discussed. These cases demonstrated high quality clinical care, with adherence to core principles including clinical diagnosis of RR-TB, well selected treatment
regimens, avoidance of injectable agents, use of child-friendly formulations more recently, and weight-based dosing, which ultimately resulted in good outcomes.

| Summary of the recommendations to follow up | 1. As it seems that an unexpectedly low proportion of RR-TB cases in the country are in children, the number of pediatric cases of RR-TB cases that are diagnosed and treated should be closely monitored to evaluate whether there is increased case finding. As a rough approximation, it is likely that children should represent 5-10% of total RR-TB cases.  
2. As almost all pediatric RR-TB cases reported in the country in the previous year were bacteriologically confirmed, the proportion of cases of pediatric RR-TB that are clinically diagnosed vs bacteriologically confirmed should be monitored closely to ensure there is not an overreliance on microbiological confirmation for diagnosis. As a rough approximation, 30-50% of cases would be expected to be bacteriologically confirmed, with the rest clinically diagnosed.  
3. Continue to monitor and update national practice as pediatric guidance evolves over the next 1-2 years, especially in relation to the use of novel drugs such as bedaquiline and delamanid in young children. |

**rGLC comments:** Follow-up to measure effectiveness of such trainings. This could include regular monitoring of % of RR-TB cases that are paediatric, and the % that are microbiologically confirmed as two indicators to track diagnosis of pediatric TB.