New WHO operational guidance on the management of TB in children and adolescents: A game changer to save young lives
The World Health Organization released consolidated guidelines on the management of tuberculosis (TB) in children and adolescents in March 2022, along with an operational handbook which contains practical guidance on how to implement the WHO recommendations. The new guidance covers the full cascade of care for children and adolescents at risk of TB and with TB.

The objectives of this course are to provide an in-depth orientation on the practical implementation guidance on the management of TB in children and adolescents included in the operational handbook, spanning the entire cascade of care, as well as to share experiences and perspectives from implementing partners.

After attending this workshop participants will be able to:

- Gain an in-depth understanding of the topics covered in the WHO operational handbook on the management of TB in children and adolescents;
- Have the opportunity to learn about successful approaches on the implementation of interventions to improve the diagnosis and management of TB in children and adolescents;
- Have the opportunity to discuss and understand implementation considerations related to the clinical and programmatic management of TB in children and adolescents.

Session sponsor: World Health Organization

Chairs: Dr. Ben Marais, University of Sydney and Dr. Kerri Viney WHO

Coordinators: Sabine Verkuilj, WHO and Annemieke Brands, WHO

Target audience: TB, MCH, HIV and other programme managers, clinicians involved in prevention and care of children and adolescents with TB or at risk of TB, civil society organizations, community organizations, and implementing partners. It is expected that the audience will benefit from the in-depth orientation on the operational handbook and be inspired by successful approaches that can help end TB in children and adolescents.
Sabine Verkuijl (Switzerland): Overview of the WHO operational handbook on the management of TB in children and adolescents

Despite being preventable and curable, TB continues to impact the lives of millions of children and adolescents. The WHO operational handbook on the management of TB in children and adolescents aims to provide practical guidance on the implementation of WHO policy recommendations for these age groups under programmatic circumstances.

The handbook is structured around the cascade of TB care and covers TB screening and contact investigation, prevention, diagnostic approaches, treatment, models of TB care and special situations.

This presentation provides an overview of the operational handbook, focusing on guidance around the new recommendations released in 2022.

Megan Palmer (South Africa): Assessing radiological disease severity of TB using CXR in children and adolescents

The implementation of the shortened tuberculosis (TB) treatment regimen for children with non-severe drug susceptible TB within local TB programs will depend on the confidence of health care providers to risk stratify by disease severity. To this end, the exclusion of radiologically severe disease on chest x-ray (CXR) is a key step in deciding whether a child or adolescent is eligible to receive the recommended shortened 4-month treatment regimen. This presentation will present the current approach to the classification of radiological disease severity outlined in the Union’s updated Diagnostic Atlas for TB in Children.

Anneke Hesseling (South Africa): The rapidly evolving landscape of RR-TB treatment and improving access for children

This presentation will focus on the 2022 guidance regarding treatment of children with RR-TB across ages and disease spectrum, and the role of novel drugs in constructing optimal regimens for children. It will highlight key aspects of regimen design and practical implementation of paediatric RR-TB treatment guidelines to ensure optimal all-oral regimens for children including the bedaquiline and delamanid in young children. Important implementation considerations including the practical use of available formulations, weight-banded dosing, safety monitoring and R&R will be addressed. Key research gaps will be highlighted and potential alignment with emerging treatment recommendations in adults and adolescents will be discussed.

Martina Casenghi (Italy): Closing the pediatric TB case finding and preventive treatment gaps: the role of decentralized and integrated models of care

Pediatric tuberculosis (TB) case finding and coverage of TB preventive treatment (TPT) among child contacts remain critical gaps to address. The CaP-TB project implemented across nine sub-Saharan African countries a multi-pronged case finding intervention which included introduction of systematic TB screening in facility-based child-health services and capacity building for pediatric TB diagnosis at lower-level facilities. The project also supported contact investigation interventions and evaluated the cascade of care for TB detection and TPT.

This presentation will review the contribution to pediatric TB case detection and TPT coverage of the integrated and decentralized approaches implemented and will discuss practical lessons learnt.

Eric Wobudeya (Uganda): Lessons from the TB-Speed project: decentralized models of care and use of alternative specimens in vulnerable children

The TB-Speed project implemented two decentralization models as well as alternative specimens in children to increase TB case detection in six high TB burden countries. The decentralized full diagnosis package was implemented at district hospital and PHC levels in two districts per country. The package included systematic TB screening, clinical evaluation, Xpert Ultra on NPA and stool and simplified digitalized CXR, followed by supportive supervision and clinical mentoring.

This presentation will share experiences and lessons learnt with decentralization of services to district hospital and PHC levels and with the implementation of alternative specimens for the diagnosis of TB in children.
Ben Marais  Prof Marais co-leads the WHO Collaborating Centre for Tuberculosis and the NHMRC Centre for Research Excellence in Tuberculosis Control, and is the acting director of the Sydney Infectious Diseases Institute (Sydney ID) at the University of Sydney. He is a paediatric infectious diseases specialist at the Westmead Children's Hospital.

Kerri Viney  Dr Kerri Viney is a Team Lead in the Global Tuberculosis (TB) Programme, WHO, in the Vulnerable Populations, Communities and Comorbidities Unit. She oversees a team and manages the Global TB Programme’s work on TB-HIV, TB-comorbidities and TB in vulnerable populations, with a focus on ending TB among children and adolescents. Her focus over the last 15 years has been on the improvement of health outcomes in vulnerable populations, including for people exposed to TB or with TB disease.

Sabine Verkuijl  Dr Sabine Verkuijl is a medical officer focusing on child and adolescent TB in the TB Vulnerable Populations, Communities and Comorbidities unit of the Global TB Programme at the World Health Organization. She has worked on the development of the 2022 WHO guidelines and operational handbook on the management of TB in children and adolescents. Prior to this she worked as a consultant for UNICEF on integration of childhood TB into MNCH programmes, as a lecturer on a post-graduate diploma on TB/HIV clinical management for the University of Cape Town and as TB/HIV technical advisor for ICAP South Africa.
**Megan Palmer** Dr Megan Palmer, MD MMed, is a paediatrician and clinical researcher at the Desmond Tutu TB Centre, Stellenbosch University, in Cape Town, South Africa. She has worked in the field of paediatric TB clinical research for the last 8 years focusing on diagnostics and, more recently, TB treatment trials. She is currently a PhD candidate exploring data-driven approaches to the use of imaging to diagnose and manage paediatric TB. Megan and her co-authors wrote the Union’s updated Diagnostic CXR Atlas for TB in Children which was launched in March 2022.

**Anneke Hesseling** Dr Anneke Hesseling, MD, PhD, is a South African clinician scientist dedicated to research in tuberculosis in children and other special populations. She is a Distinguished Professor in Paediatrics and Child Health, Department of Paediatrics and Child Health, Stellenbosch University, where she is the Director of the Desmond Tutu TB Centre. She has 20 years’ experience in designing and conducting paediatric TB research in high-burden settings and holds the first South African National Research Foundation SARChI chair in Paediatric Tuberculosis. She has published more than 290 peer-reviewed papers. Her group has a strong focus on therapeutics for paediatric TB including drug-resistant TB.

**Martina Casenghi** Dr Martina Casenghi, Ph.D., is a public health professional with about 15 years of experience in tuberculosis. She is currently collaborating with EGPAF, acting as Technical Director for the Unitaid-funded pediatric TB Project (CaP TB) that is being implemented in 9 African countries and in India. From 2006 to 2016, she worked as TB Advisor at MSF Access Campaign and her work spanned from supporting the introduction of new TB diagnostics in MSF projects, to executing advocacy strategies aimed at ensuring medical-needs oriented TB; pipelines as well as affordability of end products.
Eric Wobudeya  Dr Eric Wobudeya is a senior consultant Paediatrician and epidemiologist at Mulago National referral hospital where he heads the Pediatric TB unit. He is research scientist focused on pediatric tuberculosis (TB) for over 10 years and the national chair of the Uganda National TB program paediatric TB committee. He has been involved in planning and implementation Pediatric TB case detection strategies in Uganda for the last 17 years. He is one of the 3 coordinating investigators for the TB Speed project together with Olivier Marcy and Maryline Bonnet and the Output Leader for the TB Speed Decentralization study.