Child TB subgroup update

2014
Update

• Members 179 and rising
• New members of core group
  • Anne Detjen, The Union
  • Lindsay McKenna, TAG
  • Connie Erkins, KNCV
• Wider representation being sought
• Terms of reference were adopted
• SOPs developed by Stop TB Partnership
• Consider cross-culturing of other WGs
• Future chair
Global strategy and targets for tuberculosis prevention, care and control after 2015

Innovative approaches
Community-based
Wider health sector
Preventive therapy
Operational research
Increasing recognition that TB is an increasingly important cause of morbidity and mortality in infants and young children globally.
“Know your epidemic”
"Know your epidemic"

**TB in women** – best estimate
3,300,000 cases
Deaths:
330,000 HIV negative
180,000 HIV positive

**TB in children** (0-14 yrs)
actual reported 275,000
15% smear-positive
54% smear-negative
31% EPTB

Best estimates:
550,000 cases and 80,000 deaths
ROADMAP FOR CHILDHOOD TUBERCULOSIS

- Include the needs of children and adolescents in research, policy development, and clinical practices
- Collect and report better data, including data on prevention
- Develop training and reference materials for health care workers
- Foster local expertise and leadership
- Do not miss critical opportunities for intervention
- Engage key stakeholders
- Develop integrated family-centred and community-centred strategies
- Address research gaps
- Meet funding needs for childhood TB
- Form coalitions and partnerships to improve tools for diagnosis and treatment
Xpert MTB/RIF should be used as the initial diagnostic test in children:

suspected of having MDR TB or HIV associated TB
– *strong recommendation, very low quality of evidence*

suspected of TB (incl extrapulmonary TB)
– *conditional recommendation acknowledging resource implications, very low quality of evidence*
Diagnostic yield for pulmonary TB comparing children to adults

Xpert cannot be used to rule out TB

Xpert needs research on implementation to inform optimal usage in children
These are the revised dosages (WHO 2014) for children up to 25 kgs:

- Rifampicin: 15 (10-20) mg/kg/day
- Isoniazid: 10 (7-15) mg/kg/day
- Pyrazinamide: 35 (30-40) mg/kg/day
- Ethambutol: 20 (15-25) mg/kg/day

From 25 kgs, can change to adult dosages and preparations

- Strong recommendation, moderate quality of evidence
Weight band table when using the FDC RHZ 60:30:150

<table>
<thead>
<tr>
<th>Weight bands</th>
<th>Numbers of tablets</th>
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<tr>
<td></td>
<td>Intensive Phase</td>
<td>Continuation Phase</td>
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<tr>
<td></td>
<td>RHZ</td>
<td>E</td>
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<td></td>
<td>60/30/150</td>
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<tr>
<td>4-6kg</td>
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<td>11-14kg</td>
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<td>15-19 kg</td>
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<td>20-24kg</td>
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<tr>
<td>25 kg+</td>
<td>Go to adult dosages and preparations</td>
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</table>
Example of a weight band table when using the “new” FDC being developed

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<td>75/50/150</td>
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Guidance for national tuberculosis programmes on the management of tuberculosis in children

Second edition

CHILDHOOD TB TRAINING TOOLKIT

World Health Organization

International Union Against Tuberculosis and Lung Disease
Health solutions for the poor
In addition,

Freely available on-line training and assessment aimed at health worker in secondary and primary care setting

To be finalised, end 2014

TB Care I project
NTP reviews – 2013/14

- PNG
- Tanzania
- Kenya
- Bangladesh
- Mozambique
- Swaziland
- Malawi
- DPR Korea
- Sri Lanka

- Bhutan
- Cote d’Ivoire
- Madagascar
- Congo
- Benin
- Palestine
- Myanmar
Practical guidance

NTP reviews and child TB

Implementation of community-based contact screening
Suggestions to Global Fund

A lot can be done with what we already have:

1. Political will and prospective planning

2. Improve data recording and reporting

3. Engage the child health sector

4. Support training – emphasizing integration into ongoing training related to TB, TB/HIV, IMCI, MCH

5. Support operational research to determine constraints and barriers
"There are many contributions which the pediatrician can make to a TB control program. First the negativism about tuberculosis so prevalent in pediatrics must be overcome..."

Edith Lincoln, 1961
Child TB working group and NTP

Figure. Interventions that target stages of the continuum in children from susceptibility to disease and outcome.
Child TB working group and NTP

Figure. Interventions that target stages of the continuum in children from susceptibility to disease and outcome

Integration

- Child contact screening and management
- Improved TB control in community – increased case finding and treatment

Collaboration

- Child TB cases suspected and managed

Implementation

- NTP and child health care sector

Advocacy

- NTP data

Operational research

- NTP and child TB – policy, guidelines, priorities, planning, training, health worker support, drug supplies, funding, research, ACSM, community
Regional/national workshops

• Seven francophone African countries, Benin, January

• WHO WPRO, Regional taskforce, Viet Nam, March

• China National Child TB, Beijing, August

• International Child TB training course, South Africa, Sept-Oct

• Global consultation on child TB for high burden countries in EMRO, SEARO and WPRO, Indonesia, Sept
REGIONAL CHILDHOOD TUBERCULOSIS ACTION PLANS DEVELOPMENT WORKSHOP
IN THE WESTERN PACIFIC REGION

Ho Chi Minh City, Viet Nam
26-28 March 2014
Meetings

- iCCM meeting, Ghana
- Save the Children and Nutrition, Nepal
- CORE group, May, Silver Spring, USA
- STAG TB, June, Geneva
- Global TB TEAM meeting, Geneva
- Adolescent AIDS clinical trials group
- Advisory Panel for Global TB Alliance, NY
Comparison of research on TB diagnostics between adults and children 2011

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<td>LAMP</td>
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<tr>
<td>Automated NAAT (Xpert)</td>
<td>32</td>
<td>1</td>
<td></td>
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Cuevas L. Ind J Pediatr 2011
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STEP-TB project

development of child-friendly formulations
Increase in 2013 compared to 2012
Still only around 25% of what is needed
Research

• New diagnostics

• Preventive therapy – DS and DR

• Shorter regimens
Diagnosis of Childhood Tuberculosis and Host RNA Expression in Africa

Suzanne T. Anderson, Ph.D., M.R.C.P.C.H., Myrsini Kaforou, M.Phil., Andrew J. Brent, Ph.D., M.R.C.P., Victoria J. Wright, Ph.D., Claire M. Banwell, Ph.D., George Chagaluka, M.B., B.S., Amelia C. Crampin, F.F.P.H.M., Hazel M. Dockrell, Ph.D.,

Assessment of the novel T-cell activation marker-tuberculosis assay for diagnosis of active tuberculosis in children: a prospective proof-of-concept study

Damien Portevin, Felicien Mavukambi, Petra Clowes, Adi Bauer, Mikunde Chachage, Nyando E Ntinginya, Elirehema Mfinanga, Khadija Said, Frederick Haraka, Andrea Rachow, Elmar Saathoff, Maximilian Mpinga, Levan Jugheli, Fred Lwilla, Ben J Marais, Michael Hoelscher, Claudia Daubenberger, Klaus Reither*, Christof Geldmacher*
Union – MSF Operational Research Courses
TOTAL: 212 participants
Thank you
Terima khasi