Introducing DR-TB diagnosis and treatment for children into TB programmes:

a case study from Tajikistan

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Structure

• Background:
  – MSF and TB
  – Tajikistan and TB
• MSF paediatric DR-TB project in Tajikistan
• Lessons learnt
  – Swaying attention to children in an NTP
  – Tools for treating DR-TB
## MSF and TB (2011)

### DS-TB
- >25 yrs
- 39 countries
- 79 projects
- 26,600 cases

### DR-TB
- Since 1999
- 21 countries
- 39 projects
- 1,300 patients
WHERE **MSF TREATS TB** (2010)

- **MSF treats drug-sensitive tuberculosis in**: Armenia, Burkina Faso, Cambodia, China, Central African Republic, Democratic Republic of Congo, Ethiopia, Georgia, Guinea, India, Kenya, Kyrgyzstan, Liberia, Lesotho, Malawi, Mozambique, Myanmar, Russia, Sierra Leone, South Africa, South Sudan, Somalia, Swaziland, Uganda, Uzbekistan and Zimbabwe (as of January 2012)

- **MSF treats drug-resistant tuberculosis in**: Abkhazia, Armenia, Cambodia, Colombia, Democratic Republic of Congo, Georgia, India, Kenya, Kyrgyzstan, Myanmar, South Africa, South Sudan, Swaziland, Tajikistan, Uganda, Ukraine, Uzbekistan and Zimbabwe (as of January 2012)
Childhood TB case notifications in MSF projects, 2006-2011

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<tr>
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Tajikistan
TB in Tajikistan

- TB incidence: 198 per 100,000
- MDR TB prevalence: 13% (new), 54% (re-tt)
- TB treatment success rates: 81% (new), 70% (re-tt)
- TB/HIV: 2%
- Adult HIV prevalence: 0.2%
Tajikistan: high MDR-TB burden country
• June 2011: Opened project
• October 2011: SLD supply + clinical involvement

• November 2011: First child on DR-TB treatment
• April 2012: Draft Tajikistan paed guidelines

• November 2012: Renovations with IS + GX in place
by end October 2012

- 18 children diagnosed
- 8 biological confirmation
- Mean age – 9.5 yrs
- 8 girls
- 39% HH contact
Pie chart of the treatment history of children diagnosed with MDR-TB, Tajikistan up to October 2012

- Cat I: 44%
- Cat I & II: 22%
- No TB Tx: 28%
- Unknown: 6%
MDR-TB treatment initiation in children, Dushanbe, Nov 2011 to Oct 2012

- New cases
- Cumulative cases
Lessons learnt

Swaying attention to children

Specific training

TB diagnosis confirmatory tools

Treatment tools

Monitoring tools
Swaying attention to children

- Involve respected paediatric unit
- Set aside paediatric resources and targets
- Integrate paediatric DR-TB guidance in national guidelines/protocols
Tools for treating DR-TB in children
## Drug dosage tables

**Annex 2E: MDR TB drug dosages table**

<table>
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<tr>
<th>weight in kg</th>
<th>Capreomycin</th>
<th>Amikacin</th>
<th>Levofloxacin</th>
<th>Moxifloxacin</th>
<th>Pyronamide</th>
<th>Cycloserine</th>
<th>PAS</th>
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Discuss dosage.
Drug formulations

- Cycloserine
- Moxifloxacin
- Amikacin vs Kanamycin
- Side effects drugs

Simple, practical and clear preparation instructions
Education and counselling

• Age adapted messages
• Age and context adapted visual tools
• Trained counsellors
Conclusion

• Introduction of diagnosis and treatment of DR-TB in children in NTPs is feasible BUT
  – Doesn’t come natural in most NTPs
  – Requires specific resources and championing
  – International guidance is insufficient
  – Country-specific tools need to be prepared
  – Confirmatory tests are as important