Treating Patient, Not Disease: People-Centered Approach

7th TB Symposium – Ministry of Health of the Kyrgyz Republic and Médecins Sans Frontières

1-2 March, 2018, BISHKEK, KYRGYZSTAN

Paediatric SCR in Uzbekistan: Challenges and Successes

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Paediatric SCR in Uzbekistan: Challenges and Successes

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Bishkek 2018
Background

- Paediatric DR-TB is a problem
  - Globally 30 000 children get DR-TB yearly (WHO, 2015)

- SCR is a potentially excellent solution
  - Children are good candidates given nature of disease (i.e. low burden)

- But limited global experience with SCR in children

- Current study in Karakalpakstan will be first detailed description of use of SCR in a paediatric cohort
Paediatric SCR Study - Uzbekistan

• Prospective, single armed, cohort study

• Recruiting since July 2016 – (ongoing)

• 5 districts Karakalpakstan, Uzbekistan
SCR Protocol, Uzbekistan

4-6 mo  hdH – Z – E – Km/Cm – Mfx – Pto – Cfz

5 mo  Z – E – – Mfx – Pto – Cfz

7 days a week (DOT)
NB: Mfx 400mg

- High levels of *katG* mutation (95%)
- High levels of Z resistance (>70%)
- High levels of E resistance (>70%)

Ref: Unpublished local laboratory data
# Eligibility

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
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<tbody>
<tr>
<td>&lt;18 years old</td>
<td>Ofx resistance</td>
</tr>
<tr>
<td>Either / OR</td>
<td></td>
</tr>
<tr>
<td>GXP: Rifampicin</td>
<td>Km + Cm resistance</td>
</tr>
<tr>
<td>resistance</td>
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<tr>
<td>&lt;14 years old</td>
<td>&gt;1 month of 2\textsuperscript{nd} line drug use</td>
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<tr>
<td>+ Clinical TB</td>
<td></td>
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<tr>
<td>+ Rif. Resistant contact</td>
<td></td>
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<tr>
<td>Informed consent</td>
<td>Critically unwell</td>
</tr>
<tr>
<td>PTB, Pleural TB,</td>
<td>Other EPTB</td>
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<tr>
<td>Lymph Node TB</td>
<td></td>
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<td></td>
<td>Pregnancy</td>
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</tbody>
</table>
Recruitment

51 Screened

17 Excluded

34 Enrolled

4 Withdrawn

Excluded (17)
- Contact of Pre-XDR/XDR (6)
- Refusal (3)
- Contact with failed MDR (1)
- Previous 2nd line drug use (1)
- DST showed resistance (1)
- TB excluded (1)
- Drug contraindication (1)
- Refused by consilium (1)
- Non-active rayon (1)
- EPTB (1)

Withdrawn (4)
- Incompatible phenotypic DST (3)
- Other (1)

Database closed: 1st February 2018
## Demographics - Enrolled

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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<tbody>
<tr>
<td>Sex</td>
<td>15/34 (44%) female</td>
</tr>
<tr>
<td>Age</td>
<td>16yr 3mo (8mo – 17yr 7mo)</td>
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<tr>
<td>Pulmonary TB</td>
<td>28/34 (82%)</td>
</tr>
<tr>
<td>Microbiological evidence of TB at time of recruitment</td>
<td>29/34 (85%)</td>
</tr>
<tr>
<td>Kanamycin Resistant</td>
<td>15/28 (54%)</td>
</tr>
</tbody>
</table>
Outcomes

12 Enrolled

For those starting prior to 1\textsuperscript{st} Feb \text{2017}

8 Cure

2 Completed

2 Withdrawn
Recruitment Challenges

• Difficulty making microbiological diagnosis
  – Increased use of clinical diagnosis and contact history
  – New diagnostic methods (i.e. stool geneXpert)
  – Invasive diagnostics (i.e. gastric aspiration)
  – Wider access to sputum induction

• Stigma
  – Psychosocial support and improved treatment literacy aiming for family-centred care
Programmatic Challenges

- Sunday dosing
- Access to paediatric formulations
- Knowledge/Experience with paediatric DR-TB less than that for adult DR-TB
Treatment Challenges

• Frequent dose adjustment for weight gain
• Time required to take drugs (often >1hr)
Successes

• Good access to GeneXpert
  – Able to diagnose based on that alone

• Adherence is easier
  – Family often very invested in treatment

• Able to return to school earlier
  – Duration of school exclusion = duration of IP
Successes

• Good access to ambulatory care
  – Usually discharged after a month (can be earlier)

• Good outcomes
  – 85% success rate (end of 2017)
Questions?