Perspectives on maternal and infant outcomes of pregnant people treated for DR-TB

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Pregnant People with DR-TB: A Complex and Under-Served Population

- Increased physical vulnerability to all forms of TB;
- Exclusion from studies and, as a result, access to innovation;
- “Limited information” means counseling often creates additional anxiety;
- Fear-based infection control practices lead to discriminatory and harmful practices;
- Result is that pregnant people with DR-TB feels confused, scared, isolated and alone.
Key recommendations

- **Free family planning services**;
- Pregnant people should be routinely screened using **WHO recommended diagnostic tests**;
- **Compassionate counselling and support** for either continuing or terminating a pregnancy when a pregnant person is diagnosed with DR-TB;
- **Effective treatment** should include new, repurposed and 3rd generation fluoroquinolones even if data on the newer drugs is limited.
- Avoid drugs with **known reproductive toxicity** – pretomanid and the injectables.
- Anyone who has been on effective treatment is no longer infectious after two weeks, so:
  - The routine standard of care should be provided to pregnant people. Discriminatory infection control practices should not be enforced.
  - Newborns should not be separated from their mothers.
  - Newborns should be breastfed if this is the choice of the postpartum parent.
  - The rare exceptions are those started very recently on DR-TB treatment or those who are lost to follow-up.
- **Adherence** challenging post-partum - supportive compassionate counselling necessary.
10 studies (275 patients)

Treatment outcomes:
- Treatment success: 72.5%
- Death: 6.8%
- Loss to follow up: 18.4%
- Treatment failure: 0.6%
Lzd associated with treatment success.

Pregnancy outcomes:
- Favorable pregnancy outcomes: 73.2%.
- Preterm birth: 9.5%
- Pregnancy loss: 6.0%
- Low birth weight: 3.9%
- Stillbirth: 1.9%
A comparison of maternal treatment, pregnancy and infant outcomes: 1\textsuperscript{st} cohort vs 2\textsuperscript{nd} cohort

<table>
<thead>
<tr>
<th></th>
<th>1\textsuperscript{st} cohort</th>
<th>2\textsuperscript{nd} cohort</th>
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<tbody>
<tr>
<td><strong>Maternal treatment outcomes</strong></td>
<td></td>
<td></td>
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<tr>
<td>N=58</td>
<td></td>
<td>N=27</td>
</tr>
<tr>
<td>Favourable treatment outcomes</td>
<td>41 (71%)</td>
<td>16 (59%)</td>
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<tr>
<td>Unfavourable treatment outcomes</td>
<td>17 (29%)</td>
<td>11 (41%)</td>
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<tr>
<td>LTFU</td>
<td>11 (19%)</td>
<td>8 (30%)</td>
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<tr>
<td><strong>Pregnancy outcomes</strong></td>
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<tr>
<td>N=49</td>
<td></td>
<td>N=32</td>
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<tr>
<td>Live births</td>
<td>45 (92%)</td>
<td>32 (100%)</td>
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<tr>
<td>Favourable pregnancy outcomes</td>
<td>24 (49%)</td>
<td>19 (59%)</td>
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<tr>
<td>Unfavourable pregnancy outcomes</td>
<td>25 (51%)</td>
<td>13 (39%)</td>
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<tr>
<td>Foetal and neonatal deaths</td>
<td>4</td>
<td>0</td>
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<tr>
<td>Preterm &lt; 37 weeks</td>
<td>13 (29%)</td>
<td>9 (28%)</td>
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<tr>
<td>Low birth weight &lt; 2500g</td>
<td>20 (45%)</td>
<td>10 (31%)</td>
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<tr>
<td><strong>Infant outcomes</strong></td>
<td></td>
<td></td>
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<tr>
<td>N=41</td>
<td></td>
<td>N=23</td>
</tr>
<tr>
<td>Favourable infant outcomes</td>
<td>36 (88%)</td>
<td>18 (78%)</td>
</tr>
<tr>
<td>Weight gain: Thrive normally</td>
<td>36 (88%)</td>
<td>17 (74%)</td>
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<tr>
<td>Unfavourable infant outcomes</td>
<td>5 (12%)</td>
<td>5 (23%)</td>
</tr>
<tr>
<td>Developed TB in 1\textsuperscript{st} year of life</td>
<td>0</td>
<td>3 (13%)</td>
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New developments, but back to basics

New developments – an example
- Low BDQ exposure in ante- and postpartum women
- BDQ significantly accumulates in breast milk
- Breastfed infants received equivalent mg/KG doses of BDQ as their mothers

High infant plasma concentrations could have implications for infant safety vs potentially protective in infants exposed to DR-TB


Challenges
LTFU: Same in shortened BDQ regimen as in 18 – 24-month regimen with an injectable.
Increasing resistance to new drugs.
Back to basics:
- Supportive adherence counselling
- Family centered/differentiated/wholistic management throughout treatment journey
- TB programme not rocket science

But can an effective TB programme be implemented within a weak health system?
Acknowledgements
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