Integrated Hepatitis B prevention in PMTCT program in Chamanculo maternity Maputo, Mozambique

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Hepatitis B
Is it really a problem? And why?

Hep.B birth dose vaccine has very low implementation in Africa and in Mozambique is not part of routine immunization schedule.
The Intervention: HBV PMTCT

Feasibility and Sustainability

As part of routine antenatal care and delivery services, all pregnant women are offered:

- **screening** with HBsAg RDT (Alere Determine™ HBsAg) together with RDTs (HIV and syphilis) – **MoH**
- if HBsAg RDT is negative, HBV vaccine is provided
- if HBsAg RDT is positive, blood is collected for HBeAg, HBV Viral Load (VL) and AST/Platelets ratio (APRI) - MSF
- **HBV treatment** if WHO criteria, and TDF prophylaxis evaluated
- **HBV birth dose (BD) vaccine** <24hs after birth for all HBV exposed newborns – **MoH**
- Mother and child will be followed until M9, to **evaluate HBV infection in exposed baby** (HBsAg+HBV VL) - MSF
Results

From November 2017 until May 2018

- 2,855 pregnant women were screened for HBsAg as part of routine ANC FU
- Out of them, 100 (3.5%) were diagnosed with positive HBsAg
- HBeAg pos. rate was 6.9%
- HIV coinfection was detected in 35% of all pregnant women screened

Table 1. Baseline Patients' Characteristics
HBsAg reactive pregnant women (N=100)
Chamanculo Maternity, Maputo, Mozambique
November 2017 - May 2018

<table>
<thead>
<tr>
<th>Characteristics at enrollment</th>
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<tr>
<td>Age, mean (IQR)</td>
<td>27 (22-30)</td>
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<tr>
<td>Gestational age, n(%)</td>
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<tr>
<td>1-12 weeks</td>
<td>6 (6%)</td>
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<tr>
<td>13-28 weeks</td>
<td>65 (66%)</td>
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<td>29-42 weeks</td>
<td>21 (21%)</td>
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<tr>
<td>At delivery</td>
<td>7 (7%)</td>
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<tr>
<td>HIV positive, n (%)</td>
<td>35 (35%)</td>
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<tr>
<td>HBeAg positive (N=87)</td>
<td>6 (6.9%)</td>
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<tr>
<td>APRI score (N=68)</td>
<td></td>
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<tr>
<td>&lt;1</td>
<td>66 (97%)</td>
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<tr>
<td>1 - 1.5</td>
<td>2 (3%)</td>
</tr>
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</table>
✓ HBV DNA VL level >200,000 UI/ml, and > 1,000,000 UI/ml, in 4 patients (4.6%)
✓ Among them, 4 were HIV+ who received TDF as part of ART regimen
✓ No patient had abnormal ALT level, and no patient fulfilled WHO treatment criteria
Conclusions

- **Integration of HBV care** into ANC and Maternity routine activities was **feasible**, at least HBV testing and vaccination currently done by MoH staff, supporting the **sustainability** of the intervention for the public health system in long term.

- HBV prevalence of 3.5% documented in a cohort of pregnant women in Maputo, and following WHO recommendation, highlight the need of inclusion in ANC policy for
  - **routine HBsAg screening in ANC and maternity services**
  - **HBV birth dose vaccination in national immunization schedule**, with advocacy for adequate finance mechanism (vaccine not included in GAVI) and new strategies (e.g. controlled temperature chain-CTC-, out of cold chain vaccines) to facilitate administration in homes and communities and improve uptake of Hep.B birth dose vaccines in LMICs
  - **access to HBV treatment and TDF peripartum**

- **Treatment algorithm simplification** (e.g access to POC HBV VL, validated algorithm without the requirement of performing Hep.B VL, HBeAg RDTs) and **affordable drugs** availability could accelerate **access to treatment**.
Acknowledgements

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