Postpartum Hemorrhage Prevention and Management: Quality of Care in Madagascar

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Introduction

- This assessment provides the first data regarding quality of actual PPH-related practices in Madagascar.
- This analysis focuses on facility readiness, provider knowledge, and interventions related to postpartum hemorrhage (PPH).
Context

- Population: 20 M
- DHS IV 2008
  - TFR: 4.8
  - CPR: 40% / Modern method: 29%
  - ANC: 86% at least one
  - MMR: 498 deaths per 100,000 live births
  - Home delivery: 64%
- EMONC survey 2010
  - Major causes of maternal death
    - Hemorrhage: 38.89%
    - Prolonged labor: 22.22% PE/E
    - Infection: 20.37%
    - PE/E: 14.81%
Objective

- To provide information on quality of prevention and management interventions in facility-based care that address maternal complications.
Materials and Methods

- A cross-sectional national assessment in facilities with higher caseload of birth (>2 per day).
- Descriptive statistical analysis was conducted
  - Inventories: 36 facilities
  - Interview: 139 providers, largely midwives,
  - Observations: 347 labor & delivery (L&D) cases occurred mostly in hospitals, of which 84% ended in the spontaneous vaginal delivery.
- Data from observation of each of 15 suspected PPH cases was reviewed.
## Results (1)

### Inventory

- **Injectable uterotonics** were available in 78% of facilities,
- Equipment and supplies (e.g., syringes, suture material) were less available (42-61%).
- Half of facilities had items needed for removal of retained placenta.
- L&D guidelines were observed in only 2 facilities, and guidelines for emergency obstetric care in only 4, among the 9 where PPH cases occurred.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N=36 Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable uterotonic</td>
<td>78%</td>
</tr>
<tr>
<td>Syringes &amp; needles</td>
<td>61%</td>
</tr>
<tr>
<td>IV infusion set</td>
<td>56%</td>
</tr>
<tr>
<td>Suture material &amp; needles</td>
<td>42%</td>
</tr>
<tr>
<td>MVA or D&amp;C kit</td>
<td>50%</td>
</tr>
</tbody>
</table>
Results (2)

- **Providers knowledge**
  - Mean score to assess signs for PPH: 56%.
  - Few knew how to assess for atonic uterus (mean score 39%) or knew the steps in managing retained placenta (36%).
Results (3)

- **PPH cases observed**
  - Among suspected PPH cases, a uterotonic (oxytocin was available in all these cases) was administered in AMTSL in only 4 of 8 cases where the patient delivered at the facility;
  - Uterine massage and controlled cord traction were not performed in most cases.
Results (4)

- **Cases observed**
  - Oxytocin was given during active management of the 3rd stage of labor (AMTSL) in 85% of cases; however, only 13% of observations were fully compliant with AMTSL steps.

<table>
<thead>
<tr>
<th>AMTSL interventions performed* (n=8)</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of uterotonic</td>
<td>4</td>
</tr>
<tr>
<td>Controlled cord traction</td>
<td>3</td>
</tr>
<tr>
<td>Uterine massage</td>
<td>3</td>
</tr>
<tr>
<td>All AMTSL interventions</td>
<td>2</td>
</tr>
</tbody>
</table>
Results (5)

- **Cases observed**
  - A uterotonic was administered for treatment in only 4 of 15 PPH cases.
  - Manual removal of placenta was attempted in 5 cases, but not performed correctly.

<table>
<thead>
<tr>
<th>Type of treatment provided</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of uterotonic</td>
<td>4</td>
</tr>
<tr>
<td>Massage fundus</td>
<td>5</td>
</tr>
<tr>
<td>Repair of lacerations</td>
<td>2</td>
</tr>
<tr>
<td>Manual removal of placenta</td>
<td>5</td>
</tr>
<tr>
<td>Bimanual compression</td>
<td>--</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>0</td>
</tr>
<tr>
<td>Surgery</td>
<td>3</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td></td>
</tr>
<tr>
<td>Maternal deaths</td>
<td>0</td>
</tr>
<tr>
<td>Perinatal deaths</td>
<td>4**</td>
</tr>
</tbody>
</table>
Conclusions

- AMTSL and PPH management were not adequate even when drugs were available or special equipment was not required.
- Providers need more support to ensure complete provision of AMTSL and correct PPH management and improved PPH knowledge and skills.
- Recommendations include visible job aids at each facility, and sustained training and regular supervision of providers.
- AMTSL should be incorporated into national service delivery guidelines.
Bibliography


