Threatened Preterm Birth Care
A Global Curriculum

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+ >30 external reviewers
Helping Mothers and Babies Survive:
Threatened PTB Care

Helping Mothers Survive
Bleeding After Birth
Pre-eclampsia/eclampsia
(in progress)

Helping Babies Survive
Helping Babies Breathe
Essential Care for Every Baby
Essential Care for Small Babies

Threatened Preterm Birth Care
Criteria for Use of Action Plan

Use this action plan only in facilities able to provide:

- Accurate gestational age assessment
- Accurate diagnosis of conditions leading to PTB
- Rapid identification and treatment of maternal infection
- Adequate PT newborn care, including:
  - Resuscitation
  - Thermal care
  - Feeding support
  - Infection treatment
  - Safe oxygen use

Why?...Safe use of Antenatal Corticosteroids
Assess: mom, baby, GA, condition leading to PTB
Offer care: dependent on GA and condition
Follow up

Monitor frequently
Mother and fetus stable?

Stable

Ensure follow up doses

Prepare for PTB
See HBS Essential care for Small Babies

Monitor outcomes to improve care
Additional Concepts

- Don’t forget mom in quest to save baby
- She requires maternal care for most conditions leading to PTB

Care for Woman

- “Offer” not “Give”

Counseling

- HMS: Pre-eclampsia/Eclampsia
- HBS: Essential Care for Small Babies

Tie-ins to other modules

Quality Improvement
Field Testing: Kogi State, Nigeria
August 31th – September 4th
## Key Findings: Materials

### Threatened Preterm Birth Care - Medication Information

<table>
<thead>
<tr>
<th>Medication</th>
<th>Eligibility</th>
<th>Benefits</th>
<th>Regimen</th>
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<tbody>
<tr>
<td><strong>Dexamethasone</strong>&lt;br&gt;for lung maturity</td>
<td>• High confidence GA &lt;34 weeks&lt;br&gt; • High confidence likely to deliver in 7 days&lt;br&gt; • No suspicion of maternal sepsis or chorioamnionitis&lt;br&gt; • Advanced preterm postnatal care is available: resuscitation, thermal care, feeding support, infection treatment and safe oxygen use</td>
<td>Can reduce death in preterm babies by 30% by:&lt;br&gt; • Maturing fetal lungs&lt;br&gt; • Protecting fetal intestines and blood vessels in the brain&lt;br&gt; May increase risk of:&lt;br&gt; • Maternal sepsis&lt;br&gt; • Perinatal mortality in infants born at term</td>
<td>24 mg IM in divided doses&lt;br&gt; Recommended: 12 mg IM every 12 hrs x 2</td>
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<tr>
<td><strong>Repeat Dose</strong>&lt;br&gt;</td>
<td>• It has been &gt;7 days since the first dose&lt;br&gt; • GA is still &lt;34 weeks&lt;br&gt; • There is a high risk of birth within 7 days based on a new clinical assessment&lt;br&gt; • Patient has only received 1 prior course</td>
<td>Benefits disappear after 7 days, repeat dose may restore&lt;br&gt; • More than 2 courses can be harmful to the fetus</td>
<td>May repeat 24 mg IM in divided doses ONE time if all eligibility criteria have been met</td>
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<tr>
<td><strong>Magnesium Sulfate</strong>&lt;br&gt;for neuroprotection</td>
<td>• Viability &lt;32 weeks GA&lt;br&gt; • High risk of birth in the next 24 hours&lt;br&gt; • No known maternal cardiac problems or myasthenia gravis&lt;br&gt; • Do not give maintenance doses to women with impaired renal functioning</td>
<td>Decreases the risk of cerebral palsy and motor major dysfunction</td>
<td>Loading dose:&lt;br&gt; • 4 g 20% solution IV loading dose over 10-15 minutes&lt;br&gt; • 10 g IM 50% solution (5g in each buttock)&lt;br&gt; Maintenance Dose:&lt;br&gt; • 5 g 50% solution IM in alternating buttocks every 4 hours x 24hrs or birth, whichever occurs first&lt;br&gt; Hold if:&lt;br&gt; • Respiration &lt;16/minute&lt;br&gt; • Patellar reflex absent&lt;br&gt; • Urinary output &lt;120mL over 4 hours</td>
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<tr>
<td><strong>Nifedipine</strong>&lt;br&gt;to slow or stop contractions and delay birth 24-48 hours</td>
<td>• High confidence GA &lt;34 weeks&lt;br&gt; • In preterm labor&lt;br&gt; • Has been given dexamethasone&lt;br&gt; • Is not being given MgSO4&lt;br&gt; • No known cardiac problems&lt;br&gt; • Not in active labor</td>
<td>May delay birth by 24-48 hours to get the benefit of dexamethasone or to transport patient</td>
<td>Loading Dose:&lt;br&gt; 20 mg PO Standard release&lt;br&gt; Maintenance Dose:&lt;br&gt; 10-20 mg every 4-8 hours for up to 48 hours&lt;br&gt; Do not exceed 180 mg in 24 hours&lt;br&gt; Common Side Effects:&lt;br&gt; • Nausea, Headache, Flushing&lt;br&gt; • Heart palpitations, Dizziness&lt;br&gt; • Severe hypotension&lt;br&gt; • Shortness of breath&lt;br&gt; Risks:&lt;br&gt; • Respiratory or cardiac arrest related to magnesium toxicity (very rare)</td>
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<tr>
<td><strong>Erythromycin</strong>&lt;br&gt;for PPROM to prevent infection and delay birth</td>
<td>• GA&lt;37 weeks (deliver by 37 weeks) &lt;br&gt; • Ruptured Membranes&lt;br&gt; • No known allergy to erythromycin&lt;br&gt; Monitor closely and change to treatment protocol if signs of infection appear</td>
<td>Helps prevent infection which also reduces prematurity related problems for baby&lt;br&gt; • Diarrhea, Nausea, Vomiting&lt;br&gt; • Risk of allergic reaction&lt;br&gt; Recommendation: 250 mg orally 4x/day for 10 days. Stop antibiotics after vaginal birth. If erythromycin unavailable use a penicillin. Do NOT use co-amoxiclav/augmentin due to increased rates of necrotizing enterocolitis</td>
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*Never delay delivery for medication, if delivery is necessary for the safety of the mother or fetus

![Photo: Jhpiego](https://example.com/photo.png)

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Key Findings:

Gestational Age (GA)

- GA wheels not widely available but desired
- Job aid easy to follow; case studies useful
- Late entry to ANC key barrier for GA accuracy
Key Findings: Interventions

- ACS already in use; not all sites meet WHO criteria
  - Adequate preterm newborn care biggest gap
  - GA challenge with >50% of patients

- Ob-Gyn residents knowledgeable about MgSO4 for neuro-protection
  - Supply, cost, and staffing for monitoring are barriers to use

- Inappropriate antibiotics currently in use for PPROM
  - Co-Amoxiclav; Metronidazole
Key Findings: Audience

• Team training valuable: “Now we understand where the others are coming from”
  • Requires attention to power dynamics; caution in assuming baseline knowledge
  • High level of interest in perinatal teams

• Materials for lower-level facilities desired
  • TPTB recognition, stabilization and referral
MCSP Next Steps: Module Completion

• Incorporate external reviewers’ final edits

• Upload materials to http://reprolineplus.org/
  • Freely available; adaptable
MCSP Next Steps: Implementation

- Prioritize countries/facilities already using ACS
- MCSP maternal and newborn teams will simultaneously plan and strengthen TPTB and preterm newborn interventions
  - Focus on continuous quality improvement; facility led data for decision making
  - Support development of perinatal teams
MCSP Next Steps: GA

Improving GA dating requires:

• Provider behavior shift to seek and record accurate GA
  • Observational study in India and Cambodia examining GA assessment, documentation, and use in clinical decision-making

• Better techniques/algorithms to support estimations w/imperfect information
  • Development of mobile app with gestational age algorithm in India

• Cultural behavior shift to note LMP and seek early ANC
  • Continue integrating and strengthening BCC messaging
For more information, please visit www.mcsprogram.org

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