MATERNAL HEALTH MEDICINES:

SPECIAL FOCUS ON MAGNESIUM SULFATE

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RHSC 2014 Meeting
Mexico City, Mexico
### Principal causes of maternal deaths

Between 2003-2009: Total of 2,443,000 deaths worldwide

- **Haemorrhage**: 27% (661,000 deaths)
- **Hypertensive disorders**: 14% (343,000 deaths)
- **Sepsis**: 11%
- **Abortion**: 8%
- **Embolism**: 3%
- **Other direct**: 10%
- **Indirect**: 10%

What Commodities Do We Need?

At the heart of good maternal health care is a set of basic, low-cost, but essential supplies, including medicines that prevent the leading causes of maternal death.

Every two minutes one woman dies from pregnancy or childbirth-related complications.

99% of them live in the developing world, with India and Nigeria bearing the greatest burden.

This does not have to be the reality.

The two greatest causes of maternal deaths—which total 287,000 annually—are preventable.

1. Postpartum hemorrhage, or excessive bleeding after childbirth, causes 25% of all maternal deaths.

2. Pre-eclampsia and eclampsia, which is caused by high blood pressure during pregnancy, is attributed to 22% of all maternal deaths.
Key Barriers to Access and Utilization of MgSO4

**Market Failures**
- Little commercial interest (low price, small market)
- Need to package product for emergency use
- Single loading dose not available

**Regulatory Issues**
- Multiple formulations available (requires complicated dilutions; provider fear of error)
- No WHO support yet for community use
- Midwife use not allowed (many countries); not allowed at lowest facility level

**Knowledge Gaps**
- Lack awareness among women and families about signs and symptoms, and where to seek care
- Inadequate provider awareness of correct dosage
- Provider concerns related to toxicity

Source: UN Commission on Life-Saving Commodities for Women and Children, Commissioner’s Report, 2012
Understanding MgSO4 Supply: Nigeria

**MgSO4 widely available at all facility levels**

- 100% of MSS and SURE-P MCH facilities (586) have supplies and can provide loading dose to women with eclampsia before referral by 2014

**Policies and pre-service and in-service curriculums supportive of use**

- 100% healthcare workers in public facilities can identify signs and symptoms of eclampsia and can administer MgSO4 correctly by end of 2015
Example #1: MgS04 in Nigeria

- Many products but of uncertain quality
- No single local manufacturer in country
- Limited commercial interest in importing due to unreliable estimates
- High costs of undertaking WHO-PQ likely deterrent to new entrants
- Different formulations and dosages pose challenges to providers
Example #2: MgSO4 in Bangladesh

- MgSO4 registered and now in service guidelines
- Unavailability of magnesium sulfate in appropriate dose formulations
- Manufacture of a single loading dose for severe PE/E is needed, but pharmaceutical companies lack interest
- Products of varying quality; not available at lowest-level facilities
- Sub-district stock levels low due to low demand
Example #3: MgS04 in Ethiopia

| MgS04 not available, while Oxytocin is largely available and availability of misoprostol is limited |
| All 3 MH medicines are in guidelines and service protocols |
| Limited knowledge across providers and managers about MgS04 and misoprostol |
| MgS04 not in procurement, requisition and distribution systems |
| Over reliance on public sector for supply of key medicines |
Key Learnings

- Barriers continue to exist in range of areas: regulatory, service guidelines, policy support and financing

- Ongoing efforts by MH TRT for alternate presentation of MgSO4 and for changing wording in EMLs

- Business case for MgSO4 has been made

- MgSO4 alone not sufficient; need to pay attention to quality of maternal care more generally

- Increase community awareness of PE/E and need to seek care

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