INCREASING THE USE AND QUALITY OF ANTENATAL CORTICOSTEROIDS IN UGANDA

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ACS PROJECT OBJECTIVE

• Support MoH to identify baseline use, barriers and through quality improvement methods increase use of ACS in a “slice” of the health system (4 hospitals, 2 health centers).

• Obtain key knowledge on ACS implementation issues towards a future MoH scale up plan.
A SYSTEMS APPROACH: DRIVERS OF CORRECT USE OF ACS

**INPUTS**
- Clear orientation from leadership
- Updated national technical guidelines disseminated
- Knowledgeable and skilled health workers
- Opportune access to dexamethasone
- Data on ACS in real time at facility, district and national levels
- Operational QI teams
- A CQI system that continually measures and improves ACS as part of preterm birth care

**PROCESSES**
- Sustained and correct use of ACS in women at risk of preterm birth
- Continuous identification of gaps and testing of improvement interventions
CONTINUOUSLY MEASURING AND IMPROVING THE QUALITY OF ACS USE

- QI teams at each facility
- Monitoring processes of care and identifying deficiencies through indicators
- Testing changes aimed at improving care
- Coaching QI teams
4 STEPS (AND INDICATORS) FOR ACS IN UGANDA FACILITIES

**Step 1**
In all pregnant women:
Establish gestational age

**Step 2:**
Mothers between 24 and less than 37 weeks:
Establish if they are “AT RISK OF A PRETERM BIRTH”

**Step 3:**
Mothers AT RISK OF A PRETERM BIRTH:
Give dexamethasone

**Step 4:**
Give dexamethasone correctly

Patient has:
- Painful contractions (pre-term labor)
- Fluid leaking from vagina (premature ROM)
- Vaginal bleeding (antepartum hemorrhage)
- Severe pre-eclampsia or eclampsia (DBP > 110 with 3+ proteinuria)
LEARNING HOW TO IMPROVE ACS USE: ESTIMATING GESTATIONAL AGE

**Process deficiency**

- GA estimation done weakly and mostly through fundal height
  - Scarcity of personnel, no time to do calculations
  - Not enough measuring tapes
  - No clarity on what to do when estimation by fundal height and by LMP differ much

**Changes tested**

- Using GA “calculation wheel”
- Posting job aids
- Distributing measuring tapes
Percentage of mothers whose gestational age was assessed by fundal height measurement, by LMP and by both methods, ACS Project, 6 hospitals. URC Uganda 2014.
LEARNING HOW TO IMPROVE ACS USE: IDENTIFYING MOTHERS AT RISK OF PRETERM BIRTH

**Process deficiency**

- Health workers not identifying women eligible for ACS
  - Difficulties assessing GA
  - Many women arrive in labour and are thought not to benefit from ACS
  - High volume of deliveries makes eligible women be “lost” and not receive ACS
  - Criteria for Severe Preeclampsia not known or clear

**Changes being tested**

- Yellow stickers for “GA 24-37 weeks”, Red stickers for “risk of preterm birth”

*This mother is "AT RISK OF PRETERM BIRTH" START DEXAMETHASONE NOW*
Percentage of mothers 24-36 weeks GA and with risk factors, who were effectively recognized as being At Risk Of Preterm Birth. ACS Project, 6 Hospitals. URC, Uganda 2014.
Percentage of risk factors for preterm birth in mothers 24-36 weeks GA. ACS Project, 6 hospitals. URC Uganda 2014

- Labour Contractions: 61, 57, 56, 72, 73, 69, 66
- PROM: 8, 14, 9, 16, 14, 15, 23
- Antepartum hemorrhage: 14, 15, 7, 9, 6, 3, 13
- Severe Preeclampsia: 3, 4, 4, 2, 6, 7, 8
LEARNING HOW TO IMPROVE ACS USE: ADMINISTRATION OF DEXAMETHASONE

Process deficiency

• No use of ACS, except for one hospital where 13% of mothers at risk of preterm birth were receiving ACS
  – Most deliveries attended by midwives
  – Midwives extremely busy

Changes tested

• Establishing hospital logistics process for requesting dexamethasone
• “Low-dose, high frequency” training and coaching
• Job aids
• Collective discussion on failed cases
Percentage of women at risk of Preterm Birth who received dexamethasone and who received the correct dosage. ACS Project, 6 hospitals. URC, Uganda 2014

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<thead>
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<th>Month</th>
<th>% received dexamethasone</th>
<th>% received right dose</th>
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Percentage of preterm babies who received dexamethasone (live births). ACS Project, 6 hospitals. URC, Uganda 2014

<table>
<thead>
<tr>
<th>Month</th>
<th>% babies received dexamethasone</th>
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Percentage of preterm babies who died before discharge. ACS Project, 6 hospitals. URC, Uganda 2014
WHAT DID WE LEARN?

• QI methods are effective to achieve high levels of ACS implementation with good quality.
• A system’s approach is effective to improve the use of ACS in a relatively short time.
• National leadership from the MoH is necessary for maternities/hospitals to become involved and participate.
• Local leadership at hospitals and maternities is a key element for improving care.
• Reliably estimating gestational age with a method that is accessible and feasible at the same time needs further research and attention. Recent evidence has shown that one of the main risks when using ACS is to erroneously provide it to mothers whose babies are not preterm.
• ACS to be used not as a stand-alone intervention but as part of a package of evidence-based actions to address main immediate life-threatening conditions derived from premature birth, and feasible to be implemented in developing countries.
• ACS implementation should take into account potential effects on the mother and include strategies to improve preeclampsia case management, as well as postpartum follow up to mothers who received corticosteroids.