Maternal and Early Newborn Sepsis: An additional consequence of prolonged and obstructed labor

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Progress on Causes of Maternal Death: But Infection?

- Facility birth:
  - Poor facility IP
  - Increasing Cesarean rates
  - Increased crowding
  - Early discharge

- Puerperal Infection:
  - No real innovation
  - No new drugs
  - No new protocols
  - Rising rates: Rwanda, Uganda

Say LANCET 2014
Basic EmONC, Comprehensive EmONC and ????

Where does the management of maternal sepsis fit in BEmONC and CEmONC?

CEmONC
- Surgical obstetrics—cesarean-section, laparotomy, etc.
- Anesthesia
- Blood transfusion

BEmONC
- Parenteral uterotonic
- Parenteral anticonvulsants
- Parenteral antibiotics
- Manual removal of placenta
- Removal of retained POCs
- Assisted vaginal delivery
- Newborn asphyxia

Management of severe obstetric emergencies
- Hemorrhagic shock
- Complex severe pre-eclamptic
- Septic shock

Management of sick newborns
Current situation on maternal infection

- **Policy**
  - National guidelines on Basic Emergency Obstetric Care (BEmOC) have some guidelines for prevention and management of sepsis, but not very specific and inconsistently followed.
  - No clear framework for logical programming

- **Practice**
  - **Antibiotic use**
    - Overuse and unindicated use of antibiotics (wrong prophylaxis)
    - Incorrect use when antibiotics are indicated (wrong treatment)
  - Lack of any effort to understand or address etiology
  - Drug quality of Abx is not routinely assessed
New Recommendations Aim to Redefine Definition and Enhance Diagnosis of Sepsis, Septic Shock

The recommendations are published in the February 2016 issue of JAMA and were recently highlighted for clinicians and media at the SCCM 45th Critical Care Congress in Orlando, Florida.

New Self-Directed Sepsis Performance Improvement Course Is Now Available

Improve your strategies for the recognition and treatment of sepsis with the Self-Directed Sepsis Performance Improvement course.

Watch Educational Tutorials from the Surviving Sepsis Campaign

An informative series, Spreading Quality Just in Time, offers short tutorials on the science and methods behind applying sepsis interventions at the right time in the right way.
What causes maternal sepsis?
Factors Influencing Occurrence of Maternal Sepsis

**Maternal Infection**

**Delivery Factors**
- Antibiotic overuse and bacterial resistance
- Early discharge from facility
- Poor WASH infrastructure and behaviors
- Multiple vaginal exams
- Postpartum hemorrhage
- Prolonged rupture of membranes
- Prolonged labor
- Cesarean delivery

**Environmental Factors**
- Long distance from health care facility
- Delivery by untrained attendant
- Lack of transportation
- Low socioeconomic status
- Cultural factors that delay seeking treatment

**Maternal Factors**
- Malaria
- Anemia
- HIV
- Obesity
- Poor nutrition
- Pelvic infection
- Invasive procedures
- Primiparity
Opportunities for improvement

- Emphasis on quality of care should include critical elements of maternal/newborn sepsis

- Prevention
  - Better labor care
  - Pre-cesarean prophylaxis
  - Abx for premature prelabor rupture of membranes

- Diagnosis
  - Stratification of discharge – prevent delay in dx.

- Treatment
  - Complex maternal regimen; Amp q 6 / Gent q 24 / Clinda (or Metron) q 8 (all intravenous!!)
  - Newborn treatment has been evolving / improving
Maternal / Early Newborn Sepsis

New Definition of Sepsis

Maternal sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion, or postpartum period.

Evidence based interventions
Global Maternal Sepsis Study
GLOSS
Study design

✓ One-week inception cohort
  ✓ all eligible women and their babies admitted or hospitalized in participating facilities between 00:00H, Wednesday, September 13, 2017 to Tuesday, September 19, 2017 at 24:00H

✓ Geographical areas in 50 core developing countries and 8 developed countries
  ✓ Ensure adequate sample size and generalizability of results
  ✓ Different health systems
  ✓ Geographic and seasonal variability
  ✓ Decrease local burden of data collection
Countries participating to the Global Maternal Sepsis Study
WSC Spotlight: Maternal & Neonatal Sepsis

Save the date
September 12th, 2017

A Free Online Congress by the World Health Organization and the Global Sepsis Alliance
Safer Cesarean Births in Tanzania

**Project Goal:** Reduce cesarean section related infection and maternal morbidity through a unified and cohesive program

- Create an enabling environment for surgical change (leadership)
- Implement safe cesarean practices to reduce maternal and newborn surgical morbidity and improve care (clinical)

**Donor:** ELMA Philanthropies and GE Foundation, building on USAID bilateral

**Partners:** Government of Tanzania, Jhpiego and Safe Surgery 2020

**Geographic Focus:** 40 facilities in 5 regions of the Lake Zone

**Duration:** 2 Years
Thank you