EMERGENCY OBSTETRIC AND NEWBORN CARE: the DOH protocol

Outline

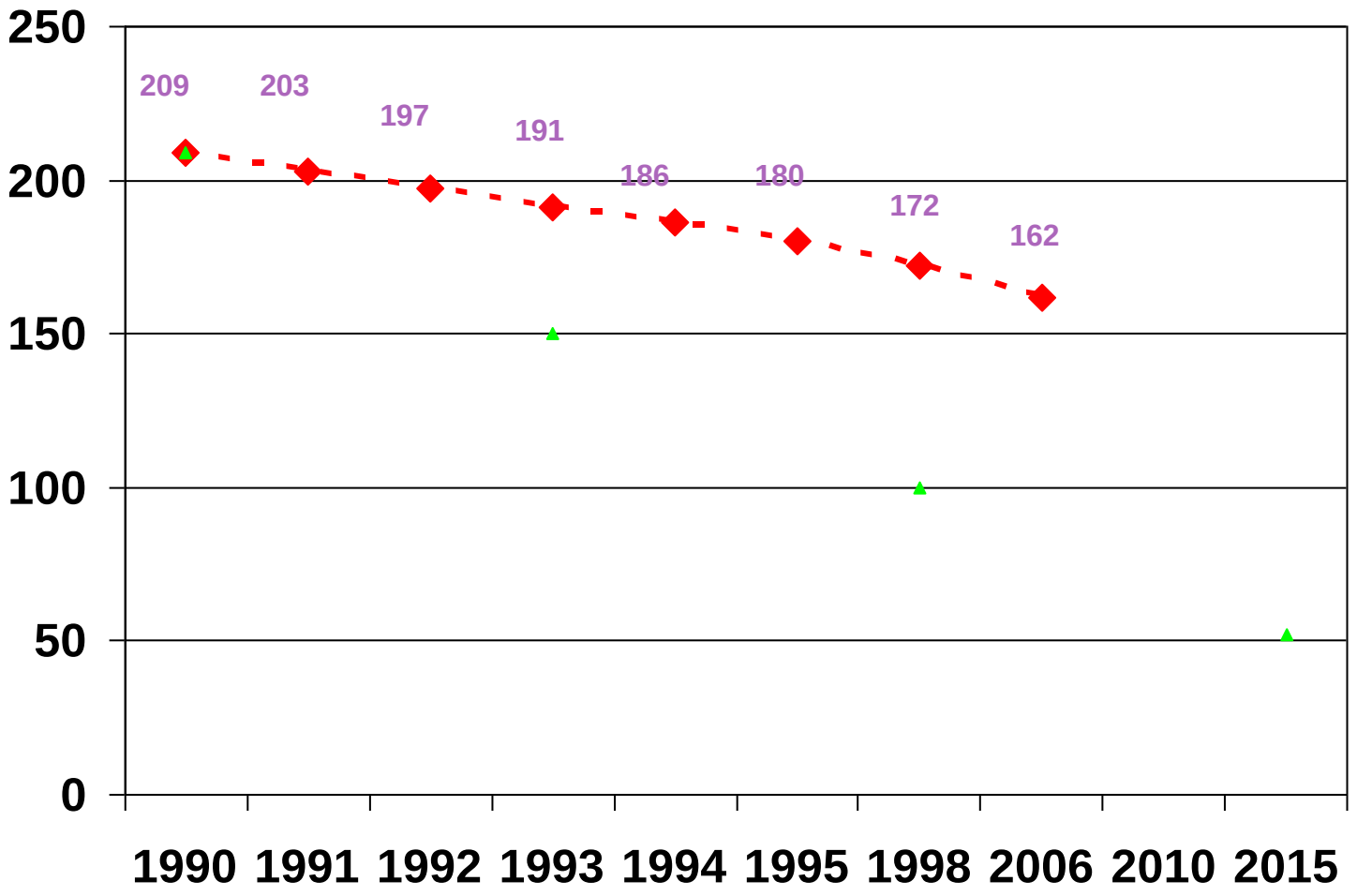
- Emergency Obstetric and Newborn Care (EmONC) as a strategy for maternal and newborn mortality reduction
  - BEmONC and CEmONC
  - Evidence based practices in EmONC
  - Essential Newborn Care

Current Situation (2008 NDHS)

- Facility-based delivery: 44%
- 9/10 have some ANC (MOST have at least 4 ANC visits
- 41% had post-natal visit
- FIC is 7 out of 10
- About half of children with illness are treated in health facilities

- High MMR :162/100,000 (2006 FPS)
- High NMR: 16/1000 LB
- High IMR: 25/1,000 LB
- Under 5 MR: 34/1000 LB

Maternal Mortality Ratio, Philippines



Implementing Health Reforms for Rapid Reduction of Maternal and Newborn Mortality

Department of Health

ADMINISTRATIVE ORDER 2008-0029

MNCHN Strategy ➡ intermediate results

CPR

Every pregnancy is wanted, planned and supported.

ANC

Every pregnancy is adequately managed.

FBD

Every delivery is **facility-based** and managed by skilled health professional.

FIC

Every mother and newborn pair secures proper postpartum and postnatal care with smooth transitions to the **women's health care package for the mother** and **child survival package for the newborn**.

Things we have done that did not work

- Focus on Antenatal Clinics
- TBA Training
- Encouraged Home Births

EVERY PREGNANCY IS A **RISK**…

EVERY PREGNANT IS AT **RISK**!

Maternal Care: The Paradigm Shift

RISK Approach → Identifies high risk pregnancies for referral during the prenatal period

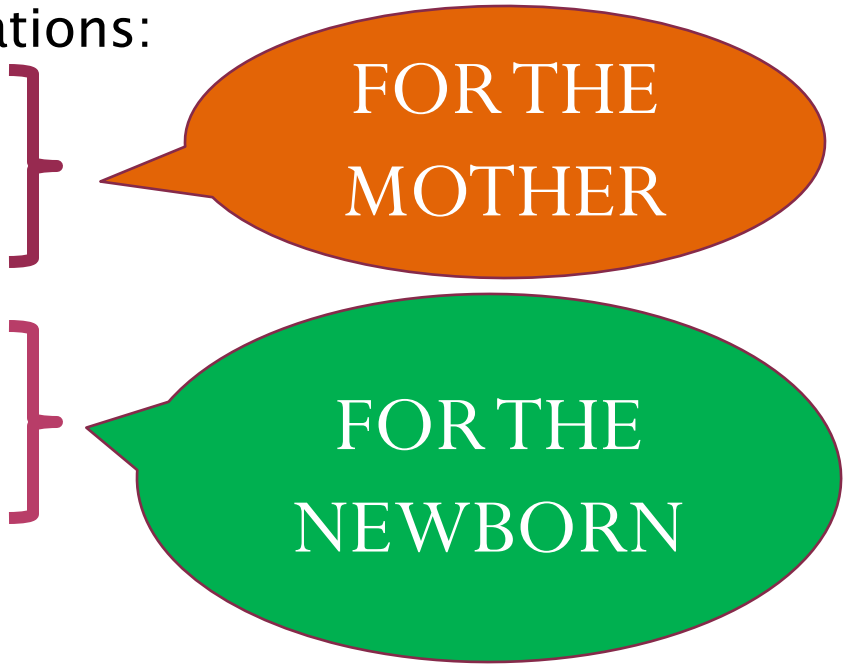
EmONC Approach → Considers **all pregnant at risk** of complications at Childbirth.

Emergency Obstetric and Newborn Care(EmONC)

- … the elements of obstetrics & newborn care that relates to the management of pregnancy, child birth (delivery), the postpartum and the newborn period:

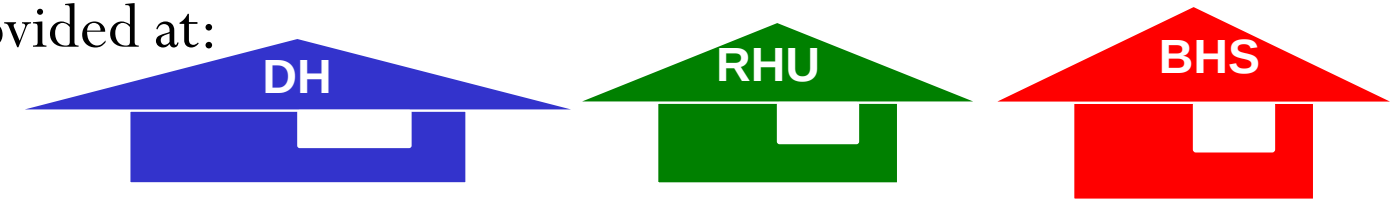
  - Early detection and treatment of problem pregnancies to prevent progression to an emergency.
  - Management of complications:
    - Hemorrhage
    - Obstructed labor
    - Pre-eclampsia/eclampsia
    - Infection

    - Infection
    - Asphyxia
    - hypothermia

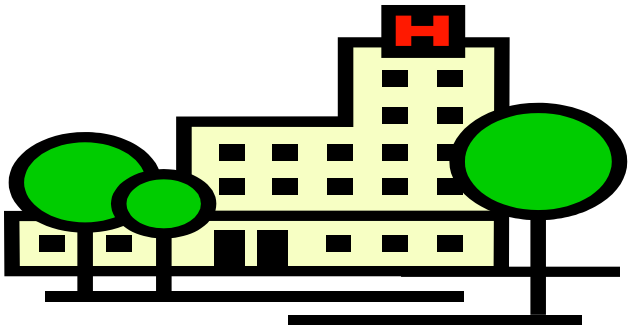


Two Types of EmONC Services

- Basic Emergency Obstetric and Newborn Care (BEmONC) provided at:



- Comprehensive Emergency Obstetric and Newborn Care (CEmONC) provided at:



BEmONC Services

Basic Emergency Obstetric and Newborn Care (BEmONC) Facilities

- Administration of **parenteral antibiotics** (initial loading dose)
- Administration of **parenteral oxytocic drugs** (for active management of the 3rd stage of labor only)
- Administration of **parenteral anticonvulsants for pre-eclampsia/eclampsia** (initial loading dose)
- Performance of **manual removal of placenta**
- Performance of **removal of retained products of conception**
- Performance of **IMMINENT breech delivery**
- Administration of **Corticosteroids in preterm labor**
- **Performance of Essential Newborn Care**

CEmONC Services

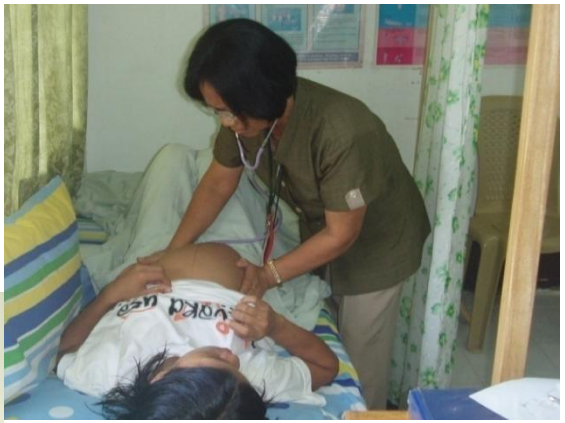
Comprehensive Emergency Obstetric Care (CEmOC) Facilities

- All of the BEMONC functions
  - **PLUS**
- **Capability for blood transfusion**
- **Capability for caesarean section**

Other Elements of Maternal and Newborn Care

PROVISION OF EFFECTIVE ANTENATAL CARE

At least 4 visits spaced at regular intervals



WHO STANDARDS FOR MATERNAL AND NEWBORN CARE 2007

Antenatal Care: its objectives

- To **prevent** … **lems/diseases** that are kn… …ble or… pregnancy;
- To **educate/counsel** wo… … a healthy pregnancy, childbirth and postn… recovery, including care of the newborn, promotion of early exclusive breastfeeding and family planning.

Present the facts to provide information

Provide advice to influence decision

Essential Elements of Antenatal Care

1. **Pregnancy monitoring of the woman and her unborn child.**
   - How old is patient?
   - Gravidity? Parity?
   - LMP? AOG?
   - History of previous pregnancies
   - Check for general danger signs
   - Perform **abdominal examination**

Essential Elements of Antenatal Care

2. Recognition & manage

> 8 months
No clear evidence of benefit
routine antibiotic and steroi

< 8 months
Give antibiotic:
ERYTHROMYCIN
Alternative: Ampicillin
Give corticosteroids if no
of infection

Betamethasone 12 mg IM q
hrs x 2 doses OR
Dexamethasone 6 mg IM q 12
x 4 doses

Antenatal Steroids: The Evidence

- Overall reduction in neonatal death
- Reduction in RDS (respiratory disease syndrome)
- Reduction in cerebro-ventricular hemorrhage
- Reduction in necrotising enterocolitis
- Reduction in respiratory support and NICU admissions
- Reduction in sepsis in the first 48 hours of life

Does not increase risk of death, chorioamnionitis or puerperal sepsis in the mother

Essential Elements of Antenatal Care

4. Develop a Birth Plan

- the woman's condition during pregnancy
- preferences for her place of delivery and choice of birth attendant
- preparations needed should an emergency situation arise during pregnancy, childbirth and postpartum.
- Where to go? How to go? With whom?
- How much will it cost? Who will pay? How will you pay?
- Who will care for your home and other children when you are away?

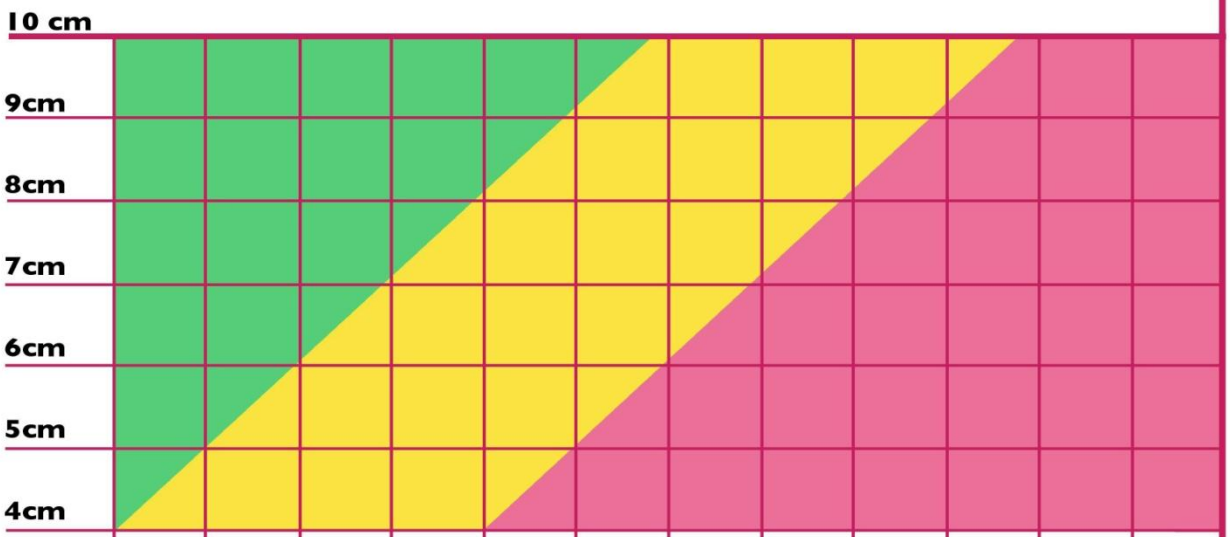
Labor, Delivery and Postpartum Care

Labor, Delivery and Postpartum Care

- Assess the woman in labor
  - Determine stage of labor
  - Monitor labor using the PARTOGRAPH
  - Recognize and manage obstetrical problems

PARTOGRAPH

Use this form for monitoring active labor



FINDINGS / Time	1	2	3	4	5	6	7	8	9	10	11	12
Hours in active labour												
Hours since ruptured membranes												
Rapid assessment												
Vaginal bleeding (0 + + +)												
Amniotic fluid (meconium stained)												
Contractions in 10 minutes												
Fetal heart rate (beats/minute)												
Urine voided												
T (axillary)												
Pulse (beats/minute)												
Blood pressure (systolic/diastolic)												
Cervical Dilation (cm)												
Delivery of Placenta (time)												
Oxytocin (time/given)												
Problem-note onset/describe below												

Care During Labor and Delivery

UNECESSARY INTERVENTIONS

- Enema
- Pubic hair shaving
- NPO
- IV fluids
- Amniotomy
- Oxytocin augmentation

Enemas during labor (Cochrane review)

	No. of studies	N	RR (95% CI)
Puerperal infection	2	594	0.61 (0.36 – 1.04) ***NS***
Infected episiotomy	1	372	0.53 (0.11 – 2.66) ***NS***
Episiotomy dehiscence	1	372	0.65 (0.36 – 1.16) ***NS***
Endometritis	1	372	0.31 (0.05 – 1.81) ***NS***
Vulvovaginitis	1	372	0.14 (0.01 – 1.35) ***NS***
Umbilical cord infection	2	592	3.53 (0.61 – 20.47) ***NS***
Newborn infection within 1 month	1	372	1.16 (0.70 – 1.91) ***NS***

- Cuervo, L.G., et.al., 1999

Enemas

The Practice:

- To decrease the risk of infections.
- Shorten the duration of labor and
- Make delivery cleaner for the attending personnel

The Evidence

- Upsetting and humiliating to the woman in labor
- There is no evidence to support routine use of enemas during labor.
- It should be done only to those who request it.

Routine perineal shaving vs. no shaving
on admission in labor (Cochrane review)

	No. of studies	**N**	**RR (95% CI)**
Postpartum maternal febrile morbidity	2		1.26 (0.75 – 2.12) ***Not significant***
Bacterial colonization	2	300	0.83 (0.51 – 1.35) ***Not significant***

- V. Basevi, and T. Lavender, 2000

Routine perineal shaving

The Practice

- **Shaving the pubic hair of women in labor is done routinely before birth as a hygienic practice**
- **to minimize infection risk if there is tearing or cutting of the area between the vagina and anus.**
- **It is also suggested that a shaved area may make stitching tears or cuts easier.**

The Evidence

- There is insufficient evidence to recommend routine perineal shaving for women on admission in labor, (level 1, grade E)
- No trial assessed the views of the woman about shaving such as pain, embarrasment and discomfort during hair re-growth.

Fasting in labor: relic or req
(An evaluation of the scienti

to reduce risk of pulmonary aspiration of gastric contents

- Fasting during labor is a tradition that continues with **no** evidence of improved outcomes for mother or newborn. Only one study evaluated the probable risk of maternal aspiration mortality, which is approximately ***7 in 10 million births***.

- Sleutel, M., and Golden, S., 1999

- Instead of implicating oral intake as a risk factor for pulmonary aspiration, the literature consistently emphasizes the **critical role of properly trained and dedicated obstetric anesthesia personnel.** Unless parturients are candidates for general anesthesia, ***a non-particulate diet should be allowed.***

- Elkington, K.W., 1991
- Breuer, J.P., et.al., 2007

Routine intravenous fluids

The Practice

- to have ready access for emergency medications
- to maintain maternal hydration

The Evidence

- Interferes with the natural birthing process restricts woman's freedom to move
- IVF not as effective as allowing food and fluids in labor to treat/prevent dehydration, ketosis or electrolyte imbalance

Amniotomy for shortening spontaneous labor (Cochrane review)

	OR (95% CI)
Cesarean delivery	1.26 (0.96 – 1.66) ***NS***
Need for oxytocin	**0.79 (0.67 – 0.92)** ***↓21%***
Reduction in duration of labor	***Significant***
5-minute Apgar of < 7	**0.54 (0.30 – 0.96)** ***↓46%***
NICU admission	***Not significant***

- Fraser, W.D., et.al., 2000

Amniotomy

The Practice	The Evidence
• Amniotomy is thought to speed up contractions and shorten the length of labor. • To assess fetal status. • It may enhance progress in the active phase of labor and negate the need for oxytocin augmentation.	• It may increase the risk for chorioamnionitis. • Possible complications include: • **cord prolapse,** • **cord compression and** • **FHR decelerations,** • **bleeding from fetal or placental vessels and** • **discomfort from the actual procedure.**

There is ***no* evidence supporting strict bed rest in supine position** during the first stage of labor. In the absence of complications, women should be encouraged to change to positions or move around during labor.

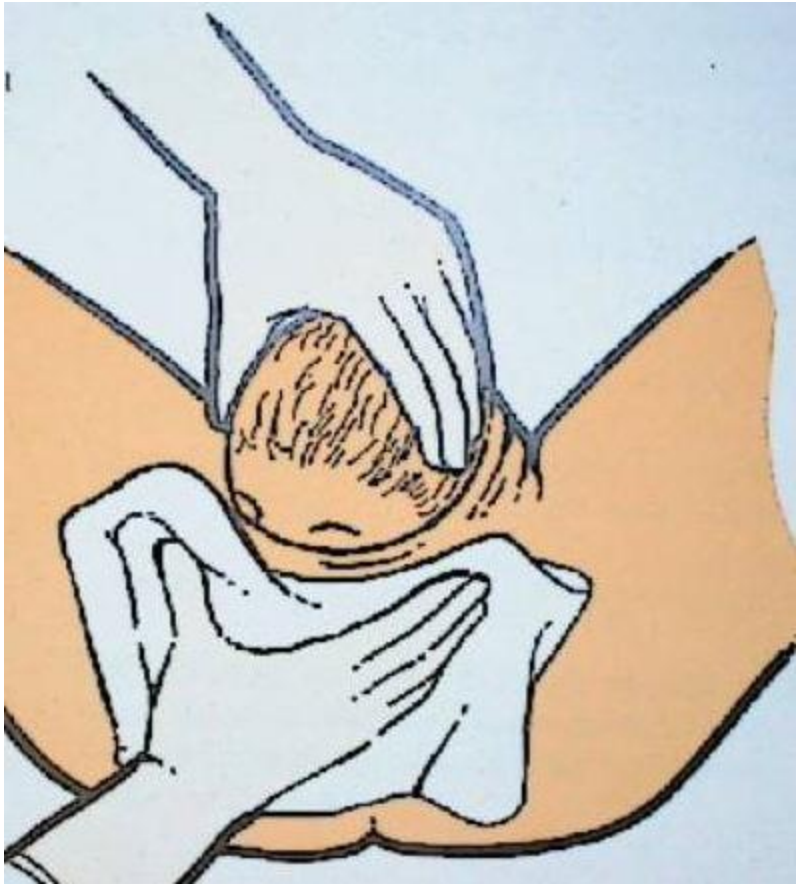
Episiotomy

The Practice	The Evidence
• Routine use of episiotomy reduce anterior perineal lacerations ***but fails to accomplish any other maternal or fetal benefits traditionally ascribed to it***.	•It must be used only <u>selectively</u> e.g. : **•when the baby is big,** **•when delivery is not progressing because of tight perineum, or** **•when forceps is to be used.**

Deliver the Baby

- When the birth opening is stretching, support the perineum and anus with a clean swab to prevent lacerations

- **Ensure controlled delivery of the head**



No significant impact on incidence of PPH (post-partum hemorrhage)

Important n

T 8 hrs

Uterine massage: The Evidence

- Less blood loss at 30 minutes
- Less blood loss at 60 minutes
- Reduction in the use of additional uterotonics
- The number of women losing >500 ml of blood approximately halved.
- Two women in the control group and none in the uterine massage group needed blood transfusions

Re

O terotonic drugs

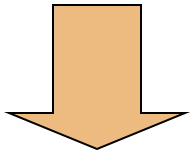
Ergometrine associated with more adverse side effects compared to oxytocin alone

No maternal deaths reported

SUMMARY

PRINCIPLES OF MATERNITY CARE

1. Effective and beneficial (evidence-based or scientific)



2. Appropriate
3. Harmless or safe

"Physiologic" management

for healthy pregnancies

“First, do no harm.”

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