

Review of Obstetrical Emergencies: Its Concept and Optimal Management

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Abstract

Obstetrical emergencies are life threatening conditions that occur in pregnancy during labour and after delivery. It is common that approximately 15% of all pregnant women develop serious complication from conception to delivery. Obstetrical emergencies may turn catastrophic in women, so every little contribution to save maternal and neonatal life brings about reduction in maternal and neonatal mortality and morbidity. Among all the emergency situations which may arise across the field of obstetrics, there are small numbers which call urgent practical steps to be taken in order to safeguard the life of the mother or the baby or both.

Emergency obstetric care is a set of critical lifesaving functions commonly called signal functions provided by a health care facility throughout the day and week. Obstetric complications can neither be predicted nor be prevented but can be managed by timely provision of life saving services. When obstetric emergencies occur, effective and efficient care by the health care professionals is essential for good outcome and safety. Diagnosis of serious situation to delivery interval should be less than 30 minutes; however, it is expected to be lengthy then appropriate measure should be taken to manage the obstetric complications. Prompt diagnosis, timely performed intervention and positive impact of maternal and neonatal management have significantly improved the maternal and neonatal outcome.

Keywords: Emergency, Obstetrical Emergencies, Emergency Obstetric care, Comprehensive Emergency Obstetric care

Introduction

An emergency can be defined as an unforeseen situation of serious or combination of circumstances and often dangerous nature, developing suddenly and unexpectedly and demanding immediate action or attention in order to save life.¹ As obstetrics is unique because it considered two patients and care for, a mother and a baby or fetus.² Despite improvements in prenatal care and advancements in medical technology, the practice of obstetrics will always provide the clinician

with “life-or-death” situations that call for immediate response.² During the last decade, it has become apparent that a large portion of the mothers and infant at greatest risk of obstetric and gynecological emergencies increasingly fall out of the health care system. In several areas of the country up to 25% of mothers receive no prenatal care. In other areas, close to 50% of young adult women have no primary care providers to handle emergencies.³

Obstetric emergencies are life threatening health problems for pregnant women and their babies. A suddenly developing pathologic condition in a women, due to accident or disease, which requires urgent medical or surgical therapeutic intervention.⁴ Obstetric emergencies are the leading cause of maternal mortality and morbidity worldwide and particularly in developing countries where literacy, poverty, lack of antenatal care,

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poor transport facilities and inadequate equipment/ staffing combine to magnify the problem. 4,5

The maternal mortality ratio (MMR), expressed as maternal deaths per 100,000 live births over a given period, is a major measure of quality of obstetric case. According to WHO analysis, Hemorrhage (30.8%), Hypertensive disorders (9.1%), Sepsis/ Infections (11.6%), Obstructed labor (9.4%), Abortion (5.7%), Anemia (12.8%) are the commonest cause of maternal death. Other indirect causes of maternal death contributes 12.5% and other direct causes (1.6%), Embolism (0.4%)

Ectopic pregnancy (0.1%) and unclassified (6.1%).⁶ Majority of maternal and neonatal deaths occurs during delivery (childbirth) or immediately after birth as most of the intervention takes place in the labour room.⁶

COMMON OBSTETRICAL EMERGENCIES

Although the definition of obstetrical emergencies implies that, it is unforeseen, but preparation and prevention should always be used to reduce the risks for the maternal and fetal. Therefore, obstetrical emergencies can be classified as:

During Pregnancy	During Labour	During Puerperium
First Trimester · Ectopic Pregnancy · Abortion · Molar Pregnancy Second Trimester · Abortion Third Trimester · Placenta Praevia · Abruptio Placenta · Pre- Eclampsia · Eclampsia · Uterine Rupture · Inversion of Uterus	· Obstetrical Shock · Vasa Praevia · Inversion Of Uterus · Ruptured Uterus · Amniotic Fluid Embolism · Cord Prolapse · Shoulder Dystocia · Third Stage PPH	· Postpartum Haemorrhage

Components of Emergency Obstetric Care

Providing quality obstetric care reduces the risk of maternal and neonatal mortality and morbidity. Eleven databases and websites were searched to know the effectiveness of Emergency obstetric care components which reveals the evidence that 50% of maternal health programmes results in reducing maternal and neonatal deaths.⁷ Emergency Obstetric Care (EmOC) are the

minimum care package required during pregnancy and childbirth for the management of life threatening complications (According to WHO) . Comprehensive set of signal functions that are emergency obstetric and neonatal signal functions that includes care of small and sick newborns are referred as comprehensive emergency obstetric care/ services.⁷

Table 1: Emergency Obstetrics Care Key Functions

Basic Emergency Obstetric and Newborn Care (BEmONC) Services	Comprehensive Emergency Obstetric and Newborn Care (CEmONC) Services
<ul style="list-style-type: none"> •parenteral administration of oxytocin in the third stage of labor •parenteral administration of loading dose of anticonvulsants •parenteral administration of initial dose of antibiotics •performance of assisted deliveries •removal of retained products of conception •manual removal of retained placenta. 	<ul style="list-style-type: none"> •surgery •perform cesarean section • provide blood banking and transfusion services

Source: World Health Organization et al, Managing Emergency Obstetric care: A handbook

Life threatening Delays

The World Health Organization estimates that at least 88-98% of maternal deaths can be averted with timely access to existing, emergency obstetric care using effective and efficient referral system.⁵

Timing is critical in preventing maternal death and disability: Although post-partum haemorrhage can kill a woman in less than two hours, for most other complications, a woman has between six and 12 hours or more to get life-saving emergency care. Similarly, most perinatal deaths occur around delivery or in the first 48 hours afterward. Timeliness and appropriateness of referral are a challenge to obstetricians, since the delay in referral affects the maternal and perinatal outcome adversely. Hence identification of at risk patients and obstetric emergencies and timely referral is of immense importance.⁸

A ‘three delays’ model helps to identify the points at which delays can occur in the management of obstetric complications.

Ø The **first delay** often happens when a woman, or her family, put off **seeking care**.

Ø The **second delay** can occur when she tries to **reach appropriate care**.

Ø The **third delay** is delay in **receiving care at health facilities**.

Both of these delays relate to the issue of access to care, involving factors such as family and community beliefs, awareness, affordability of care, availability of transport and distance to care. Improved awareness in the community and use of new communications technologies – including mobile phones – can address the first delay. Improved transport services and reduced transport costs can effectively address the second delay.

The third delay is delay in receiving care at health facilities. This involves factors within the health facility, including organization, quality of care, and availability of staff and equipment. Addressing these situations is an essential condition for ensuring that obstetric emergency situations are efficiently managed.⁹

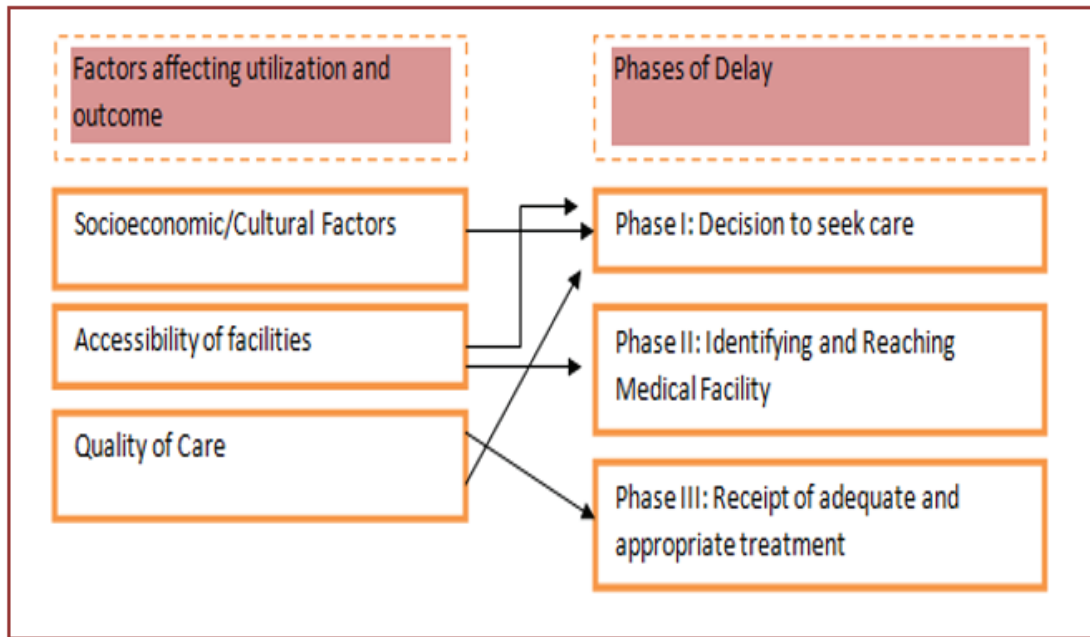


Figure 1: THREE DELAYS MODEL

How to prevent Obstetrical Emergencies

Prevention/effective management of obstetric emergencies will help to reduce maternal and perinatal mortality. This can be achieved through

- adequate funding of social welfare services to assist patients, liberal blood donation, and regular training of doctors and nurses
- utilization of antenatal care services
- making budget for pregnancies and childbirth at family level.

Conclusion

Obstetrical emergencies are life-threatening conditions that occur in pregnancy, during or after labor and delivery. There are a number of illnesses and disorders of pregnancy that can threaten the well-being of both mother and child. It is of paramount importance that nurses are aware of the identification and management protocols of obstetrical emergencies. As more maternity care is now given in the community, however, midwives, general practitioners, and paramedics may be involved and must know the outlines of management of emergencies and the possible side

effects. If such a situation occurs outside the hospital then arrangements must be made to transport the woman to the obstetric unit safely and promptly. All emergency protocols should have been considered beforehand and mutually agreed by obstetricians, midwives, general practitioners, and paramedics.

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