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Quality of Maternal Health Care: Maternal Near –Misses in a University Hospital , Egypt

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Train bridge reflection on the Nile, Mansoura



11/26/2014

Nursing & Healthcare, Nov.17-
19,2014, Chicago, USA

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University Campus, Hospital, Nursing Conference



11/26/2014

Nursing & Healthcare, Nov.17-
19,2014, Chicago, USA

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Introduction and background

- **Maternal mortality is estimated at 287 000 women died in 2010.**
- **WHO reports that 10-15 million women experience severe illness and disabilities**
- **Five percent of maternal deaths occur in Arab countries and 390.000 women in Middle East are suffering of severe long lasting complications caused by pregnancy and delivery.**

- **One of the Millennium Development Goals is to reduce maternal mortality ratio by 3/4 by 2015 especially in the sub-Saharan areas where the problem is more tragically.**
- **Recently Maternal Near Miss (MNM) indicator is increasingly being recognized as a potentially useful tool in assessing the quality of healthcare as it reflects the scope of complications during pregnancy and childbirth.**

Maternal Near Miss (MNM) Is
“a woman who nearly died but
survived a complication that
occurred during pregnancy,
childbirth or within 42 days of
termination of pregnancy”.

WHO

- **Despite all the efforts done by Egyptian government to achieve the Millennium Development goals,**
- **there is a question regarding the quality of care provided to the Egyptian women during pregnancy and delivery.**

Objective

To identify Maternal Near Miss in a teaching University hospital (MUH).

A retrospective descriptive study.

80 women with potential life threatening conditions was reviewed to identify MNM

Characteristics of Suspected Women with Potential Life Threatening Conditions.

Characteristics	Mean (Minimum-maximum)
Women's age	22.8 (19-40)
Gestational age	29.2 (18-43)
Previous CS (18, 22.5)	3 (1-5)
Referrals (67, 83.75)	
Private Obstetricians	20 (29.6)
MOH Hospitals	30 (44.8)
Private Hospitals	10 (15.1)
Others	7 (10.5)

Time and Types of Morbidity Conditions

Morbidity conditions	At arrival or within 12 hours		Developed after 12 hours	
	No	%	No	%
1. Women with potentially life-threatening conditions				
Severe postpartum haemorrhage	20	25	10	12.5
Severe pre-eclampsia	41	51.3	3	3.7
Eclampsia	4	5.0	0	0.0
Sepsis or severe systemic infection	2	2.5	0	0.0
Ruptured uterus	0	0.0	0	0.0
Total women with severe complications	67	83.8	13	16.2

Morbid Women Undergoing Critical Interventions

2. Women undergoing critical Interventions	No	%
Use of blood products	35	43.8
Laparotomy	13	16.3
Admission to intensive care unit	(65, 81.25)	
Sever preeclampsia/Eclampsia	35	53.8
Sever PPH	19	29.2
Anemia	5	7.7
Multiple organ dysfunctions	4	6.2
Hystrectomy + Anemia	2	3.1

MNM and dead women who experienced organ dysfunctions.

Organ Dysfunctions	Near Miss Cases (67)	
	No	%
Cardiovascular dysfunction	20	29.8
Respiratory dysfunction	9	13.4
Renal dysfunction	5	7.5
Coagulation/haematologic dysfunction	8	11.9
Hepatic dysfunction	5	7.5
Neurologic dysfunction	5	7.5
Uterine dysfunction/hysterectomy	2	3
Multiple organ dysfunctions/died women	4	6
Total	58	86.6

Causes of life-threatening conditions

1. Underlying causes	Near Misses	
	No=63	%
Pregnancy with abortive outcome	2	3.2
Obstetric haemorrhage	20	31.7
Hypertensive disorders	35	55.5
Pregnancy-related infection	2	3.2
Other obstetric disease or complication	5	7.9
Medical/Surgical/Mental disease or complication	11	19.1
Unanticipated complications of management	5	7.9

Contributory Causes

Anemia	28	44.4
Previous caesarean section	15	23.8
Prolonged / obstructed labour	5	7.9

End of pregnancy and pregnancy outcome

Pregnancy out comes	No	%
Vaginal delivery	2	3.2
Caesarean Section	59	93.6
Complete abortion	2	3.2
Laparotomy for ectopic pregnancy	1	1.6

Process and outcome indicators among MNM

Prevention of PPH		
Oxytocina use	26	41.3
Use of any uterotonic (including oxytocin)	37	58.7
TTT of sever PPH (20)		
Oxytocina use	13	65.0
Ergometrine	19	95.0
Misoprostol	4	20.0
Removal of retained products	4	20.0
Artery ligation	9	45.0
Hysterectomy	2	10.0
Anticonvulsants for eclampsia (45)		
Magnesium sulfate	40	88.9

Process and outcome indicators among MNM

Indicators	No	%
Prevention of caesarean section related infection (59)		
Antibiotics	59	100
Prophylactic antibiotic during caesarean section	56	98.4
Treatment of sepsis (2)		
Prenatal therapeutic antibiotics	2	100
Preterm birth (6)		
Corticosteroids for fetal lung maturation	6	100

Conclusion

- **The main life threatening conditions were severe pre eclampsia, severe hemorrhage, eclampsia and sepsis.**
- **More than 80% of cases went through critical Intervention such as ICU, blood products and laparotomy (87.8).**

Conclusion

- **79% of cases experienced organs dysfunction.**
- **5% of women with life threatening conditions were died.**
- **Also, study revealed several issues regarding quality of obstetric care that need urgent attention and improvement to reduce maternal morbidity.**

Recommendations

- **WHO auditing tool providing a thorough evaluation of the quality of healthcare and suggesting improvements in maternal outcomes.**
- **The results may help establish public healthcare policies and strategies aimed at tackling the issue of maternal morbidity and mortality.**

- **Qualitative prospective studies should be conducted to acquire further information on the profile of cases and on the risk factors for MNM.**
- **Applying standardized protocols and guidelines in emergency and admission rooms.**

Thank you from Egypt

