Maternal mortality in Emergency Obstetric Unit of Kasr El- Aini Hospital During the period from 2006 to 2008

Thesis

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By

Enas Ragb Abo El-Magd Mohamed
M.B.B.Ch, Cairo University

Under supervision of

Prof. Dr. Medhat Mosad El-Tamamy
Prof. of Obstetric and Gynecology
Faculty of Medicine
Cairo University

Prof. Dr. Sherif Mohamed Maher Negm
Assist. Prof. in Obstetric and Gynecology
Faculty of Medicine
Cairo University

Dr. Abd El-Ghany Mohamed Abd El-Ghany
Lecturer in Obstetric and Gynecology
Faculty of Medicine
Cairo University

Department of Obstetrics and gynecology
Faculty of Medicine
Cairo University

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عايدة احمد محمد تاج الدين

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Abstract

Maternal death is defined as death of any woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to, or aggravated by the pregnancy or its management.

The maternal mortality rate is defined as the number of maternal deaths per 100.000 women of the reproductive age (15-50) years, while the maternal mortality ratio is the number of maternal deaths per 100.000 livebirths.

Key word: **Maternal mortality_ Emergency_ Aini Hospital**

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List of Abbreviations

ACOG	The American College of Obstetricians and Gynecologists.
APH	Antepartum Hemorrhage.
AFE	Amniotic Fluid Embolism.
ARDS	Adult Respiratory Distress Syndrom.
BMI	Body Mass Index.
BP	Blood pressure.
CDC	The centres for Disease and Control.
CEMACH	The Confidential Enquiry into Maternal and Child Health.
CS	Cesarean Section.
CPR	Cardio-pulmonary Resuscitation.
CBC	Complete Blood Picture.
DIC	Dissemenated Intravascular Coagulopathy.
DVT	Deep Venous Thrombosis.
DKA	Diabetic Keto- acidosis.
EOC	Emergency Obstetri Care.
FP	Family Planning.
FIGO	Federation of Gynecologists and Obstetricans.
FHI	Family Health International.
FDPs	Fibrin Degradation Products.
GDM	Gestational Diabetes Mellitius.
GA	General Anaesthesia.
HELLP	Hemolysis, Elevated liver Enzymes, Low Platelets Count.

HDP Hypertensive Disease of Pregnancy.

Hb Hemoglobin.

HIV Hummen Immunio-deficiency Virus.

IAI Intra-Amniotic Infection.

IUD Intra-uterine Device.

ICU Intensive Care Unit.

IUFD Intra-uterine Fetal Death.

IDDM Insulin Depentant Diabetes Mellitus.

MMR Maternal Mortality Ratio.

MOH Ministry of Health.

MWHs Maternity Waiting Homes.

MCH Maternal and Child Health.

MVR Mitral Valve Replacement.

MODs Multiple Organ Dysfunctions.

MDGs Millennium Development Goals.

MS Mitral Stenosis.

MR Mitral Regurge.

NYHA New York Heart Association.

PC Prothrombin Cocentration.

PT Prothrombin Time.

PH Pulmonary Hypertension.

PPH Primary Post partum Hemorrhage.

PROM Premature Rupture of Membrane.

PE	Pulmonary Embolism.
RAMOS	Reproductive Age Mortality Studies.
RCOG	The Royal Collage for Obstetricians and Gynecologists**.**
RTI	Reproductive Tract Infections.
RHD	Rheumatic Heart Disease.
RBS	Random Blood Sugar.
STD	Sexual Transmitted Disease.
TBAs	Traditional birth attendants.
TR	Tricuspid Regurge.
UNICEF	United Nation Children`s Foundation.
UK	United kingdom.
UN	United Nations.
US	Ultrasound.
WHO	World Health Organization.

Introduction

Introduction:

According to the world health organization "A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. **(WHO., 1992)**

Generally there is a distinction between a direct maternal death that is the result of a complication of the pregnancy, delivery, or their management, and an indirect maternal death that is a pregnancy-related death in a patient with a preexisting or newly developed health problem. Other fatalities during but unrelated to a pregnancy are termed accidental, incidental, or nonobstetrical maternal deaths**. (WHO., 1993)**

The major causes of maternal death are bacterial infection, variants of gestational hypertension including pre-eclampsia and Hemolysis-elevated liver enzymes-Low platelets count(HELLP) syndrome, obstetrical hemorrhage, ectopic pregnancy, puerperal sepsis, venous thromboembolism, amniotic fluid embolism, and complications of abortion. Less common causes of maternal death include renal failure, cardiac failure, and hyperemesis gravidarum. **(Khan et al., 2006)**

As stated by world health organization the report the percentages are: severe bleeding/hemorrhage (25%), infections (13%), unsafe abortions (13%), eclampsia (12%), obstructed labour (8%), other direct causes (8%), and indirect causes (20%). Indirect causes include malaria, anaemia, HIV/AIDS and cardiovascular disease. **(WHO., 2005)**

Haemorrhage and hypertensive disorders account for the largest proportion of maternal death in the developing countries. **(Khan et al., 2006)**

The maternal mortality ratio (MMR) is defined as the number of maternal deaths per 100 000 live births. Estimates of maternal mortality ratios calculated from 141 countries showed a strong association with three factors: (i) the proportion of deliveries assisted by a skilled attendant; (ii) the infant mortality rate; and (iii) national per capita expenditure on health. MMRs ranged from 127 to 1289 in the developing countries and from two to 695 in the developed countries. Development status clearly showed an inverse relationship with MMR: generally speaking, the higher the level of development, the lower the MMR**. (Betran et al., 2005)**

Six Strategies are identified for reducing Maternal Mortality: Increase of the socioeconomic level of population, Improvement of Family Planning Services, Development of Emergency Obstetrics Care control of the 3 delays, Strengthening of Adolescent Health, Control of abortion, Increase collaboration between specialized networks**. (Diallo., 2005)**

In Egypt, a recent national study estimated 52% drop in maternal mortality ratio (MMR) from 174 in 1992–93 to 84 in 2000**. (Ministry of Health and Population., 2001)**

This round of maternal mortality data is compared with the earlier nation wide maternal mortality study in 1992. Health care interventions that may account for the decrease were reviewed. And the results show that MMR has decreased by 51.7% nation wide. This decrease was

greater in the less-developed parts of Upper Egypt (59%), than in Lower Egypt (30%). A multifaceted set of interventions were concentrated in Upper Egypt. The greatest decrease in maternal mortality was associated with the area of highest intervention, greatest need, and during the time period of the implementation of this program. **(Reginald Gipson et al., 2005)**

Several factors contributed to the decrease in MMR in Egypt. There were increases in use of health services; use of modern contraceptives; hospital deliveries; and use of trained birth attendants. For most indicators, the changes were greater in Upper than Lower Egypt. Since 1992–93, efforts by the Government of Egypt and donors to improve access to and the quality and utilization of services can be linked to a greatly reduced MMR. **(Reginald Gipson et al., 2005)**