

# **Maternal Mortality Rate In Obstetric Department At Kasr Al Aini Hospital (2003 - 2007)**

## **Thesis**

Submitted for fulfillment of the master degree in Obstetrics and  
Gynecology

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## **Abstract**

Childbirth is a universally celebrated event for thousands of women every year. But for some women, childbirth is experienced not as enjoyfull event as should be, but as a hell that may end in death.

Maternal deaths are 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 live births.

The world Health organization estimates that more than 500.000 women die each year because of conditions related to pregnancy and childbirth. Almost 99% of these deaths take place in developing countries.

### **Key words**

Maternal mortality indices

Incidence of maternal mortality

Etiology of maternal mortality

Maternal mortality in the United States and United Kingdom

Preventive measures

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## **List of abbreviations**

<b><i>ACOG</i></b>	American College of Obstetrics & Gynecology
<b><i>AFE</i></b>	Amniotic Fluid Embolism
<b><i>BP</i></b>	Blood Pressure
<b><i>CBC</i></b>	Complete Blood Count
<b><i>CDC</i></b>	Centers for Disease Control
<b><i>CEMD</i></b>	Confidential Enquires into Maternal Deaths
<b><i>CPD</i></b>	Cephalo-pelvic Disproportion
<b><i>CPR</i></b>	Cardio-pulmonary Resuscitation
<b><i>CS</i></b>	Cesarean Section
<b><i>CV line</i></b>	Central Venous Line
<b><i>D.C. Shock</i></b>	Direct Current Shock
<b><i>DIC</i></b>	Disseminated Intravascular Coagulation
<b><i>DVT</i></b>	Deep Venous Thrombosis
<b><i>ECG</i></b>	Electrocardiogram
<b><i>ENMMS</i></b>	Egypt National Maternal Mortality Study
<b><i>EOC</i></b>	Emergency Obstetric Care
<b><i>FDPs</i></b>	Fibrin Degradation Products
<b><i>FHS</i></b>	Fetal Heart Sounds
<b><i>HELLP syndrome</i></b>	Hemolysis, Elevated liver enzymes & Low platelets count
<b><i>HR</i></b>	Heart Rate
<b><i>IAI</i></b>	Intra-amniotic infection
<b><i>ICU</i></b>	Intensive Care Unite
<b><i>IU</i></b>	International Unit
<b><i>IUFD</i></b>	Intra-uterine Fetal Death

<b><i>IV</i></b>	Intra-venous
<b><i>MMR</i></b>	Maternal Mortality Ratio
<b><i>MWHs</i></b>	Maternity Waiting Homes
<b><i>NHS</i></b>	National Health Service
<b><i>NVD</i></b>	Normal Vaginal Delivery
<b><i>NYHA</i></b>	New York Heart Association
<b><i>P/V</i></b>	Per Vagina
<b><i>PAHO</i></b>	Pan American Health Organization
<b><i>PE</i></b>	Pulmonary Embolism
<b><i>PMSS</i></b>	Pregnancy Mortality Surveillance System
<b><i>RBCs</i></b>	Red Blood Cells
<b><i>RBS</i></b>	Random Blood Sugar
<b><i>RRT</i></b>	Rapid Response Team
<b><i>TBA</i>s</b>	Trained Traditional Birth Attendants
<b><i>UK</i></b>	United Kingdom
<b><i>UN</i></b>	United Nations
<b><i>US</i></b>	United States
<b><i>WHO</i></b>	World Health Organization

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# Introduction

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

Direct deaths are defined as those related to obstetric complications during pregnancy, labor or puerperium (6 weeks) or resulting from any treatment received. Indirect deaths are those associated with a disorder the effect of which is exacerbated by pregnancy. Late deaths occur  $\geq 42$  days after end of pregnancy. (*Hoj L et al., 2003*).

Most maternal mortality occurs in developing world with >500,000/year. (*Yayla M, 2003*).

However, it is not possible to obtain accurate data on total number of pregnancies. The degree of underreporting of maternal death rates by routine vital statistics has been estimated to be 20% to 75%. (*Jacob S. et al., 1998*).

In 1994, the Egypt National Maternal Mortality Study 1992/93 (ENMMS 1992/93) summarized the data collected and reported an overall maternal mortality ratio (MMR) of 174/100,000 (maternal deaths per live births). The five main causes of death were postpartum hemorrhage (25%), hypertensive disease (16%), antepartum hemorrhage (8%), and puerperal sepsis (8%) and ruptured uterus (7%). Furthermore, the study showed that the two main avoidable factors of death were substandard care on the part of health care providers (59%) and delays in seeking care on the part of the woman and her family (42%). (*Hamza S, 2005*).

Aim of the Work

This is a retrospective study of Maternal Mortality in Kasr El-Aini Maternity Hospital (Emergency Unit), during the period from the first of January 2003 to the end of December 2007.

The aim was to determine, outline and assess the factors contributing to maternal mortality, especially the avoidable factors, and to evaluate the preventability of such factors, and finally, to make some recommendations and comments for the possible prevention of maternal deaths.

Also, there is an idea about the maternal mortality in the United States and United Kingdom included and demonstrated in our work.

# Indices