Eclampsia | Summary

Ten percent of all pregnancies are complicated by hypertension.

Eclampsia and preeclampsia account for about half of these cases worldwide and have been recognized and described for years despite the general lack of understanding of the disease.\[1\]

In the fifth century, Hippocrates noted that headaches, convulsions, and drowsiness were ominous signs associated with pregnancy.

**In 1619, Varandaeus coined the term eclampsia in a treatise on gynecology.**\[2, 3\]

**Some Heavy Facts**
Approximately 800 women die from pregnancy or childbirth-related complications around the world every day.\(1\)

**Ninety-nine percent occur in developing countries.**

The higher number of maternal deaths in some areas of the world reflects inequities in access to health services and the gap between rich and poor.

The complications that account for 80% of all maternal deaths are:

- severe bleeding (mostly bleeding after childbirth)
- infections (usually after childbirth)
- high blood pressure during pregnancy (preeclampsia and eclampsia)
- unsafe abortion

The remaining 20% are associated with diseases such as malaria and AIDS during pregnancy.

Maternal health and newborn health are closely linked. More than three million newborn babies die every year, and an additional 2.6 million babies are stillborn.\(2\)

The risk of maternal mortality is highest for adolescent girls under 15 years old.\(3,4\) Women in developing countries have on average many more pregnancies than women in developed countries, and their lifetime risk of death due to pregnancy is higher. The probability that a 15-year-old woman will eventually die from complications of pregnancy is 1 in 150 in developing countries versus 1 in 3800 in developed countries.
The Impact Of Preeclampsia

Preeclampsia and related hypertensive disorders of pregnancy impact 5-8% of all births in the United States.(5,6) Incidence rates for preeclampsia alone - in the United States, Canada and Western Europe, range from 2-5%.(5,6)

In the developing world, severe forms of preeclampsia and eclampsia are more common, ranging from a low of 4% of all deliveries to as high as 18% in parts of Africa.(5)

The variation in incidence rates is driven by the diversity of definitions and other criteria (including procedures, tests and their methodologies).

In Latin America, preeclampsia is the #1 cause of maternal death.(7)

Ten million women develop preeclampsia each year around the world.

**Worldwide about 76,000 pregnant women die each year from preeclampsia and related hypertensive disorders.**

And, the number of babies who die from these disorders is thought to be on the order of 500,000 per annum.(8)

In developing countries, a woman is seven times as likely to develop preeclampsia than a woman in a developed country. From 10-25% of these cases will result in maternal death.(9)

Preeclampsia should be detected and appropriately managed before the onset of convulsions (eclampsia) and other life-threatening complications.

Administering drugs such as magnesium sulfate for pre-eclampsia can lower a woman’s risk of developing eclampsia.

In the U.S., pregnant women are commonly followed by a health care specialist (doctor, midwife or nurse) with frequent prenatal evaluations.

In areas of the world with little access to care and lower social status of women, traditional health practices are usually inadequate to detect preeclampsia early. Hypertensive disorders of pregnancy commonly advance to more complicated stages of disease, and many births and deaths occur at home unreported.

Poor women in remote areas are the least likely to receive adequate health care.

This is especially true for regions with low numbers of skilled health workers, such as sub-Saharan Africa and South Asia.
Although levels of prenatal care have increased in many parts of the world during the past decade, the World Health Organization reports that only 46% of women in low-income countries benefit from skilled care during childbirth.(1) This means that millions of births are not assisted by a midwife, a doctor or a trained nurse.

**Preeclampsia Awareness Saves Lives**

The onset of preeclampsia can occur suddenly. In developed countries such as the U.S., a primary factor preventing women from seeking immediate, rapid medical attention is a lack of awareness and understanding of the signs and symptoms of the disease.(10) Worldwide, factors preventing women from seeking or receiving care are:

- poverty
- distance
- lack of information
- inadequate services
- cultural practices

To improve maternal health worldwide, barriers that limit access to quality maternal health services must be identified and addressed at all levels of the health system.

The Preeclampsia Foundation’s mission, as it applies to the global burden of this disease, includes advocating for greater awareness and attention to the preeclampsia within broader maternal health initiatives, identifying and supporting improvements to health care delivery – in all settings, and encouraging empowerment and engagement of women through effective preeclampsia education.

**References**


The hypertensive Disorders of Pregnancy (HDP) and in particular pre-eclampsia and eclampsia are a major cause of maternal deaths in the world. Although the incidence varies from region to region, eclampsia accounts for up to forty percent of maternal mortality in some countries.

These guidelines are intended to help improve health worker's knowledge and clinical skills necessary for the early detection of high blood pressure, proteinuria and oedema which are hallmarks of this condition. They can be adapted by MCH programme managers for the training of staff, upgrading skills and knowledge, or as a guide for assessing training, equipment and supply needs.
Etiologic and Risk Factors for Preeclampsia/Eclampsia

Genetic predisposition, immunology, endocrinology, nutrition, abnormal trophoblastic invasion, coagulation abnormalities, vascular endothelial damage, cardiovascular maladaptation, dietary deficiencies or excess, and infection have been proposed as etiologic factors for preeclampsia/eclampsia. Imbalanced prostanoid production and increased plasma antiphospholipids have also been implicated in eclampsia.

Risk factors for eclampsia

The following are considered risk factors for eclampsia:

- Nulliparity
- Family history of preeclampsia, previous preeclampsia and eclampsia
- Poor outcome of previous pregnancy, including intrauterine growth retardation, abruptio placentae, or fetal death
- Multifetal gestations, hydatid mole, fetal hydrops, primigravida
- Teen pregnancy
- Primigravida
- Patient older than 35 years
- Lower socioeconomic status

The following preexisting medical conditions are also considered risk factors:

- Obesity
- Chronic hypertension
- Renal disease
- Thrombophilias-antiphospholipid antibody syndrome
- Protein C deficiency and protein S deficiency
- Antithrombin deficiency
- Vascular and connective tissue disorders
- Gestational diabetes
- Systemic lupus erythematosus


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