

# Ebola Virus Disease (EVD) and Women's Health Care in Pregnancy

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**E**bola virus (family *Filoviridae*, genus *Ebolavirus*, type species *Zaire ebolavirus*), Ebola hemorrhagic fever (EHF) or Ebola is a disease of human and other primates, caused by an Ebola virus (1-5). These agents cause a severe, unrelenting viral hemorrhagic fever with high mortality (1). EVD was first recognized in 1976, when two unrelated epidemics occurred in northern Zaire and southern Sudan (1-5). The largest outbreaks to date are the ongoing 2014 west African. Ebola outbreaks, which is affecting Guinea, Sierra Leone, Liberia and Nigeria (2-5).

## Transmission

Ebola virus may be acquired upon contact with blood or bodily fluids of an infected animal. Spreading the air has not been documented in the natural environment. Fruit bats are believed to be a carrier and may spread the virus without being affected (1-2). Once human infection occurs, the disease may spread between people as well (2).

## Symptoms

Clinical appearance starts in 2 days to 3 weeks after contacting the virus, with fever, sore throat, muscle pain and headaches (1-5).

## Treatment

A number of experimental treatments are being studied. The FDA has allowed two drugs, Zmapp and TKM-Ebola (2). Treatment is primarily supportive in nature (1-5). The disease has a high risk of death, killing between 50% and 90% of those infected with the virus (1-5), in conclusion No specific treatment for the disease is yet available.

## Prevention

Includes decreasing the spread of disease from infected animals to humans (2). Prevention of epidemics relies on early recognition and initial cases and prompt institution of barrier nursing. At the community level, properly sterilized injection equipment, protection from body fluid and skin during preparation of the dead, and routine barrier nursing precautions are probably adequate in most cases (1-2). During the EHF epidemic in Kikwit, Democratic Republic of Congo the number of infected women was slightly higher than the man (6-7).

## Sex protection

Saliva, breast milk, and semen, abstinence from sex or the use of condoms during sex, as well as avoidance of breastfeeding and contact with the mucous membranes of the eye for at least 3 months after recovery, are still recommended to avoid possible exposure to EBOV in the aforementioned immunologically protected sites. Male survivors may be able to transmit the disease via semen for nearly two months (2).

## Pregnancy

The number of infected women was slightly higher than the number of infected men. In research that was done by Mupapa in 2000 confirmed, among 105 women 15% were pregnant and one of those survived. The mortality rate among pregnant women with Ebola virus was slightly higher (93.3%) than during the overall epidemic in the area (77%). The mortality rate for non-pregnant women was 70% (6-7). Pregnant women might suffer hemorrhage due to various reasons such as Placenta Previa or abortion, making it difficult to diagnose Ebola in pregnant women. During an outbreak of Ebola each expectant mother with bleeding receives care as a suspected Ebola patient, they may need blood transfusion and/or abortion and post-abortion care (6-7).

## Symptoms in Pregnancy

Most clinical signs of Ebola disease in pregnant women are: fever, asthenia, abdominal pain, conjunctivitis, anorexia, diarrhea, hiccups, arthralgia, shock, dysphagia, nausea, vomiting, retrosternal pain, cutaneous eruption, increased respiratory rate. All infected women had signs of hemorrhage, including severe genital bleeding, melena, gum bleeding, ecchymosis, bleeding at injection sites, hematemesis, petechia, and hematuria, respectively (7).

## Neuropsychiatric symptoms in pregnant women

Headache, anxiety, decreased consciousness, apathy, coma, delirium, and convulsions, respectively (7).

## Abortion

Spontaneous abortion is frequent. A high frequency of abortion has also been observed during infection. Previous study was confirmed that (67%) of the pregnancies ended with an abortion in infected women with Ebola virus (7).

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