



**OPERATIONAL  
RESEARCH  
SNAPSHOT**

## ***Managing Pregnancy and Childbirth in an Ebola Epidemic***



## **In the unprecedented 2014-2016 Ebola outbreak in West Africa, managing pregnancies and deliveries at treatment centers posed a major challenge.**

At nine Ebola treatment centers in Guinea, Liberia, and Sierra Leone, Médecins Sans Frontières (MSF) treated close to 5000 patients. Some of the women reaching the centers were pregnant, and several delivered at the treatment centers.

There is little evidence on how pregnancy affects the chances of survival for mothers and children with Ebola, or whether babies of convalescent women remain infectious to others. No neonates of Ebola-positive mothers have reportedly survived previous epidemics.

This operational research study documents the largest series of Ebola-positive pregnant women and analyses death and survival among neonates at MSF treatment centers between March 2014 and October 2015.





**36** out of 77 pregnant women with confirmed Ebola survived (46.6%), and there is no significant difference to the survival rate of non-pregnant women (50.4 %). Women reaching a treatment center earlier in their pregnancy had a better chance of successful treatment and recovery.



**23** women went into spontaneous labour or had miscarriages at a treatment center. Eight patients had to be induced due to fetal death, and three terminated their pregnancy. Only two babies were born alive, of which one – baby girl Nubia – is the first documented survivor of congenitally acquired Ebola.



**I**n 22 deliveries, the amniotic fluid, fetal cord blood, placenta, fetuses, and products of conception were tested for the Ebola virus. In all cases at least one of the tests returned positive results, confirming high infection risks for convalescent mothers and health workers present at the delivery.



## IMPLEMENTATION

The study suggests introducing standard pregnancy testing when admitting women to an Ebola treatment center to optimize patient management and prepare safe facilities for delivery.

Pregnant women that are Ebola-positive or recovered from the disease should only deliver at an isolated treatment center, and private maternity spaces need to be created in centers to allow preparations for safe delivery and management of potentially live neonates.

Original Study: Caluwaerts, S; Van Herp, M; Gil Cuesta, J; Crestani, R; Ronse, A; Lagrou, D; Weber, P; Saint-Sauveur, J; Oren Black, B; Caleo, Grazia; Guild, C; Walumpumpu, F; Ciglencek, I; Squire J; Fallah, M; Sow, M; Antierens, A (2018): Pregnancy and Ebola: management and survival of pregnant patients admitted to Médecins Sans Frontières Ebola Treatment Centres in the 2014-2016 West Africa epidemic: a retrospective observational study. Submitted to Lancet Global Health , under review.

Pictures: Tommy Trenchard/MSF, Albert Maslas/MSF, Sam Phelps/MSF, TSylvain Cherkaoui/MSF



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