Principles of Management for Pregnant Women with Ebola: A Western Context

This guidance is based on operational experience from working in the Ebola Management Centres of West Africa and the institutional experience of Médecins Sans Frontières (MSF). The principles of management however can be widely applied to a Western context. The foundation of these principles is from both the general treatment of Ebola infected patients (men, women & children) as well as more specifically on the management of pregnant and post-partum women.

The over-riding principle is always to first assess how one can maximise the safety of all staff who are working within the High Risk area.

Present data suggests that maternal mortality remains high (approximately 95%) and peri-natal mortality virtually 100% for infected pregnant women. The pregnant women is contagious both by normal means as well as through amniotic fluid and breast milk, both of which remain Ebola virus positive after the women herself has survived (therefore whilst she is serologically negative she remains potentially contagious).

These principles should be read in conjunction with the Médecins Sans Frontières "Guidance Paper Ebola Treatment Centre (ETC): Pregnant and Lactating Women". All guidance must be taken in context, the MSF guidance paper is written for use in the unprecedented epidemic ongoing in West Africa, which is also a resource poor setting. It is unlikely that in the Western setting there will be many Ebola positive pregnant women, and the facilities available will be of a different kind to those currently used in West Africa.

The following 10 principles are advised within any setting:

1. Always assess safety to healthcare and other workers. Numbers of people working in direct contact with patients and in the high risk area should be kept to a minimum and only appropriately qualified/trained personnel should enter. Length of time within the High Risk area should be minimised.

2. Invasive procedures should be kept to a minimum to avoid risk of body fluid exposure and sharps injury.

3. Any pregnant women suspected of having Ebola (i.e. meets the case definition of symptoms plus possible exposure within 21 days) should be isolated and handled only in accordance with measures and protocols as set-out for an Ebola confirmed patient. This should remain the case until proven to not have Ebola. Testing of blood, urine and other body fluids should only happen within strict biohazard safety facilities. It is reasonable to begin empirical treatment for malaria and bacterial infection (ideally with oral medication) before sending samples. If the local laboratory does not have the required safety equipment for processing the test for Ebola, it should not receive any samples from the patient till an appropriate laboratory has processed the sample and confirmed the status of the patient. Close liaison with local and referent laboratories for local protocol is advised.

   The patient must have been symptomatic for at least 4 days before a negative test can be confirmed as a true negative. Therefore if negative on first day of symptoms, the patient should remain isolated and be re-tested on day 4 of symptoms.

3. Fetal monitoring is not advised. The likelihood of a surviving baby is virtually zero. If fetal distress was suspected it would not be advised to undertake any surgical or invasive procedures as these would be of high risk to the staff involved with unlikely benefit to the patient or the fetus.

4. In the event of a women with, or recently survived of, Ebola delivering it should only take place with in a designated high risk area (with privacy) with easy access to decontamination

for healthcare staff. There is no reason to move a patient from a secure infection control area to a delivery room/labour ward/side room.

Intravenous access should be secured at the earliest time to avoid risk of sharps injury in an emergency situation or with an agitated patient.

Once again, fetal monitoring is not thought to be of benefit.

Spontaneous vaginal delivery should be anticipated.

Vaginal examinations should be minimal and artificial rupture of membranes avoided.

Avoid standing directly in front of patient during delivery of fetus or placenta (deliver side-on) to avoid body fluid splash.

Do not give an episiotomy. If there is a vaginal tear it is not advised to suture as there is high risk of health worker infection if sharps injury were to occur.

In the event that obstetric surgery is needed for maternal reasons careful evaluation of the likely benefit and outcome should take place within a multi-disciplinary team. Ideally medical ethical opinion should be sought.

It is common for pregnant women presenting with Ebola to have an intra-uterine fetal death (IUFD), current advice is to not induce labour until the women has recovered from Ebola (is serologically negative and well). If spontaneous labour begins follow as above.

5. Placenta and stillborn child must be disposed of in accordance with high risk material protocol.

6. Misoprostal (+/- Mifepristone) should be considered as first-line treatment for induction of labour, termination of pregnancy and post-partum haemorrhage. Intravenous/intramuscular drugs to be given with caution and only if the healthcare worker is appropriately trained and feels safe to do so. Intra-uterine procedures should be avoided.

   Spontaneous miscarriage is a common presentation in women infected with Ebola virus. Extra caution should therefore be taken in the assessment of women presenting with bleeding in pregnancy and an Ebola contact history. Isolation and personal protection protocols should be followed. Expectant or medical management is advised. Uterine evacuation should be avoided, if necessary it should be performed under strict infection control and personal protection conditions and with minimal equipment (consider Manual Vacuum Aspiration).

7. In the unlikely event of a live birth the baby must be assumed to be Ebola positive and handled in accordance with full personal protective equipment and safety protocols. If the mother wishes she may breastfeed as the baby is assumed to be Ebola positive, it should be made clear that the baby is very likely to die in the neonatal period.

8. If the mother does not wish to breast feed or following a stillbirth the mother must be given Cabergoline to suppress lactation.

9. Mothers who continue to lactate, even if surviving Ebola, must be trained in safe breast-pumping and disposal of milk. Breast milk carries the Ebola virus, this continues for an unknown length of time in the convalescent/surviving patient.

10. All surviving women should be counselled and given adequate family planning, nutritional support and ferrous sulphate/folic acid.

For further advice please refer to the aforementioned pregnancy guidance paper and the MSF “Filovirus Haemorrhagic Fever Guideline”, bearing in mind that these are intended for field use in the epidemic area.

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