

## **FAQ Patient Care 3. How should infant and young child feeding (including breastfeeding) be managed in Ebola Treatment Units (ETUs)?**

- Young children require special attention in ETUs. They are generally at increased risk of malnutrition upon admission, and due to poor nutritional reserves, they are at increased risk of developing acute malnutrition during illness.
- If they are breastfed, there is a possibility that breastfeeding will need to be stopped abruptly without time for proper weaning.
- They also may be separated from caregivers, with major emotional consequences, including decreased appetite.
- Even if not acutely ill, many young children require physical feeding support.

These factors put young children at particular nutritional vulnerability.

This FAQ covers three main topics to be considered in the context of EVD and the management of ETUs:

- 1. Breastfeeding**
- 2. Replacement feeding with a breastmilk substitute (BMS)**
- 3. Complementary feeding**

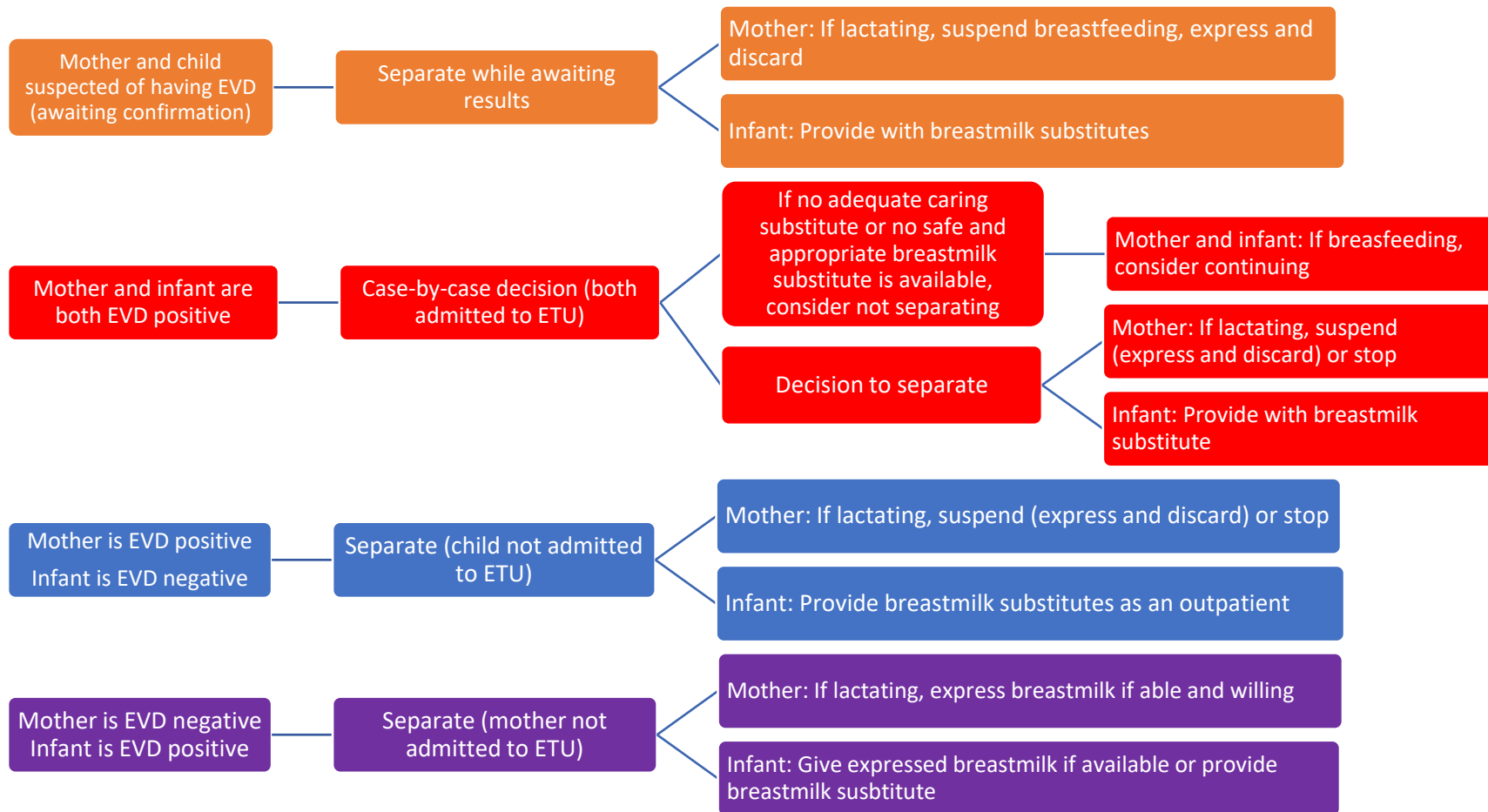
More detailed guidance on these three topics for non-EVD contexts is provided elsewhere.

### **1. BREASTFEEDING**

***What are the current recommendations regarding breastfeeding and the management of mothers and children <24 months of age in ETUs?***

ETU management of mothers and children <24 months of age depends on the Ebola virus status of each<sup>1,2</sup>. See Figure 1 and associated descriptions below.

**Figure 1. Decision tree for mother-child pairs in an ETU**



### **If mother and child are admitted to the ETU and awaiting their test results:**

- When mother-child pairs are admitted to an ETU and diagnosis for EVD has not yet been confirmed, they should be separated while awaiting RT-PCR<sup>a</sup> test results.
- If the mother is lactating, breastfeeding should be immediately suspended. Breastmilk should be expressed and discarded (treated as hazardous waste) so that milk supply can be maintained and breastfeeding can be easily resumed if/when it is appropriate.
- Children <24 months who were previously breastfed or receiving other milks should be provided with a BMS.

### **If mother and child are admitted to the ETU and both test positive for EVD:**

- The appropriateness of separating EVD positive mother-child pairs where both are EVD-positive should be evaluated on a case-by-case basis. Age of the child, disease severity and other contextual factors must be considered, while recognizing the nutritional and immunological benefits of breastmilk.
- According to WHO guidance: if a child is <6 months of age and does not have access to safe and appropriate BMS, or the child cannot be adequately cared for, then the option to not separate and continue breastfeeding can be considered<sup>2</sup>.
- Guidance suggesting to discontinue breastfeeding in the event that both a breastfeeding woman and her breastfed child have acute EVD are based on “a hypothetical risk of viral ‘boosting’ between two infected individuals. Viral boosting could in theory increase disease severity through additional viremic exposure.” (ibid)<sup>b</sup>
- Regardless of the context, a mother’s choice should be respected and supported by healthcare workers without stigmatization and with clear individual counselling. There is a high level of uncertainty around the risks of continued breastfeeding when both mother and child are positive, which should be conveyed to the mother during counselling.<sup>3</sup>
- In the event that a mother who has decided to continue breastfeeding becomes too ill to do so, then BMS may nevertheless be required.
- When lactating mothers suspend or stop breastfeeding, any expressed breastmilk should be discarded.

### **If only the mother is EVD positive and admitted to ETU:**

- Only the mother should remain in the ETU.
- Lactating mothers should suspend or stop breastfeeding. Any expressed breastmilk should be discarded.

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<sup>a</sup> Reverse transcription polymerase chain reaction test

<sup>b</sup> Evidence to directly support this theory is lacking and indeed the WHO recommendation to discontinue breastfeeding is based on “very low quality of evidence

### **If only the child is EVD positive and admitted to the ETU:**

- Only the child should remain in the ETU.
- Lactating mothers should be encouraged to express breastmilk, which can be provided to the admitted child as long as appropriate infection prevention and control measures are in place.
- Assistance should be provided in expressing breastmilk, and if possible, a manual breast pump should be supplied. (Note: expressed milk must be refrigerated and discarded after one day in refrigerator or one hour at bedside).
- If the mother is unable to supply expressed breastmilk, the child should be provided with BMS.

### ***What support should be offered to women in ETUs who suspend or stop breastfeeding?***

- Upon arrival at the ETU (whether for suspected or confirmed EVD), lactating women should be provided with a specific consultation on breastfeeding. Efforts should be made to protect, promote and support future breastfeeding.
- Lactating women intending to resume breastfeeding when it is safe and appropriate should be supported to retain breastmilk production. They should be taught to express breast milk regularly, either manually or with a breast pump.
- Lactating women wishing to stop breastfeeding should be offered assistance on expressing breastmilk in order to alleviate pain and engorgement and prevent inflammation.
- If appropriate and available, medication such as Cabergoline should be considered and offered to pregnant or breastfeeding women to suppress lactation. In a pregnant woman, this is ideally offered soon after delivery/pregnancy termination.

Note: Expressed breastmilk from an EVD patient should be considered a contaminated product and be handled following Ebola infection prevention and control guidelines to reduce risk of virus transmission<sup>3</sup>.

### ***What are breastfeeding recommendations for lactating women discharged from ETUs as cured?***

- Lactating women who have stopped breastfeeding and are discharged as cured of EVD and have a young child who is asymptomatic or EVD negative should not resume breastfeeding until there have been two negative breastmilk RT-PCR tests (separated by 24 hours).
- Breastmilk should be tested immediately prior to or upon discharge from the ETU. Likewise, all lactating women who had EVD while pregnant should have their breastmilk tested for Ebola virus by RT-PCR. If Ebola virus RNA is detected, breastmilk should be retested every 48 hours until two consecutive “undetected” results are obtained.
- If a lactating woman is discharged cured of EVD and unable to test her breastmilk, she should not resume breastfeeding as the risk of transmission to the infant can remain for some time after clinical recovery in some cases<sup>2</sup>.

## 2. REPLACEMENT FEEDING WITH BMS

### What should be used as a BMS?

#### For infants <6 months old:

- Ready-to-use infant formula (RUIF) is the first choice of BMS for this age group in an ETU<sup>c</sup>. No other food/drink should be provided except oral fluids (e.g., oral rehydration solution) prescribed by the clinician.
- If RUIF is not available, powdered infant formula (PIF) appropriate for infants <6 months of age is the second choice.

#### For children 6–23 months old:

- PIF, RUIF or UHT whole milk (ultra-high temperature full cream milk) can be used. The choice may depend on what is available and feasible to give.

*RUIF or reconstituted PIF must be used within two hours after opening and discarded thereafter. Once a carton of UHT milk has been opened, it should be used or discarded within two hours if left at room temperature. Refrigerated contents should be used within seven days of opening.*

#### Therapeutic milks: F-75 and F-100

These milks should be prioritized for the treatment of with severe acute malnutrition in children 6–59 months of age. If no other BMS are available for non-malnourished children, F-100 can temporarily be used until an appropriate BMS is made available.

**NOTE:** In most contexts, wet nursing is not recommended as the risk of Ebola virus transmission from a wet-nurse to an infant and vice versa is considered high if either becomes infected.<sup>3</sup>

### What quantity of BMS should be provided and how often?

The amount of milk to give and frequency of feedings will depend on the child’s age. The amount given to children aged 6–23 months also depends on the ability to consume a semi-solid or solid diet. Those on a liquid diet should only receive milk, while those on a semi-solid or solid diet should also receive complementary foods. See tables below.

**Table 1. Recommended amount of BMS for infants <6 months of age**

Age	Total amount daily	Number of feeds per day	Amount per feed
<1 month	450 ml	8	60 ml
1 month	600 ml	7	90 ml
2–3 months	750 ml	6	120 ml
4–5 months	900 ml	6	150 ml

<sup>c</sup>RUIF is infant formula that does not need further preparation and is ready to use; its supply does have considerable cost and storage implications, which needs careful consideration in every context.

**Table 2. Recommended amount of BMS for children 6–23 months of age**

Age	Total amount daily	Number of feeds per day	Amount per feed
<b>Milk + complementary foods</b> (semi-solid or solid diet)			
6–23 months	500 ml	5	100 ml

BMS should be given using a disposable or sanitized cup. If an infant (<1 year old) has difficulty with a normal cup, the first choice would be a specially designed feeding cup (paladai).<sup>d</sup> If not available, a syringe can be used and must be replaced for each feeding.

### **Replacement feeding needs on discharge and follow-up**

Considering the length of time it takes for breastmilk to test negative for EVD (median reported to date is 36 days post ETU discharge), ETUs should consider supplying families in need of replacement feeding a two-month supply of an appropriate BMS and linking them to services that can assess and support further infant feeding decisions after this time. The feasibility and acceptability of providing this discharge ration of BMS should be assessed for each ETU and their associated health system and support. As ever, giving out BMS must always be accompanied with appropriate education on how to safely prepare, give and store it at home.

### **3. COMPLEMENTARY FEEDING**

In addition to milk, children 6–23 months of age should be offered nutritionally complete and varied meals that are appropriate for their development. Consistency should increase gradually depending on the child’s age, overall health and ability to eat. Mash, puree and soften food for younger infants to make it easier for them to chew and swallow. For older children, cut solid food up into very small pieces to avoid choking.

#### **Frequency of meals depends on age:**

- 6–8 months old: Give 2–3 meals and 1–2 snacks per day.
- 9–23 months old: Give 3–4 meals and 1–2 snacks per day.

If the child lacks appetite, meal/snack size should be decreased, and frequency should be increased. Ensure there are nighttime feeding options.

Each meal should include 2 to 3 different family foods from the following groups, with all groups being covered each day:

- Staple foods: grains, roots, tubers.
- Foods of animal source: meat, chicken, fish, liver, eggs and dairy products.

<sup>d</sup> For information on paladai cups: <https://shop.laerdalglobalhealth.com/product/nifty/>

- Legumes: beans, lentils, peas and seeds. (Soak beans and legumes prior to cooking to make them softer and more suitable for children to consume).
- Fruits and vegetables (especially those rich in vitamin A): papaya, mango, passion fruit, oranges, dark green leafy vegetables, carrots, pumpkin and sweet potatoes.

Younger children may need foods that are prepared especially for them, while older children can generally eat the same food items that are provided to older children and adults, just in smaller quantities and with the appropriate consistency.

Snacks can include fruit, bread or other simple, traditional (healthy) foods.

Diets that are assessed as not meeting daily micronutrient needs should be supplemented with micronutrient powder. As with older patients, local foods should be the first choice.

Ready-to-use therapeutic food or ready-to-use supplementary food should be reserved for children with severe (RUTF) or moderate (RUSF) acute malnutrition. However, if no other appropriate snacks or supplements are available for non-malnourished children, these products can be used as supplements if necessary and if the child accepts them. RUTF in bar or biscuit form should be made into porridge. Paste versions of RUTF/RUSF are not appropriate for those with swallowing difficulties.<sup>1</sup>

Avoid offering processed fruit juices, sodas or other non-nutritive beverages as they may exacerbate diarrhoea and are low in nutrients.

## References

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3. World Health Organization. Clinical Management of Patients with Viral Haemorrhagic Fever: A Pocket Guide for Front-Line Health Workers: Interim Emergency Guidance for Country Adaptation. World Health Organization; 2016.