



STANDARD OPERATING PROCEDURES AND GUIDELINES FOR NUTRITION RESPONSE TO EBOLA

November 2022

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COVER PHOTO:

Emmanuel Sentongo conducting a food demonstration and nutrition education at Mubende Regional Referral Hospital

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FOREWORD

Good nutrition is a basic need and is fundamental to the health and wellbeing of every individual including infants and young children.

A well-nourished body can greatly improve the ability to fight off several diseases including Ebola Sudan Virus Disease, (SVD). Our bodies' ability to prevent, fight and recover from infections depend on what we eat and drink, hence the need for a healthy diet during this Ebola outbreak.

Whereas food or dietary supplements cannot prevent or cure Ebola, healthy diets are important for supporting immune systems. Intake of healthy diets contribute to good nutrition which can also reduce the likelihood of developing other health problems, including obesity, heart disease, diabetes, and some types of cancer.

In light of infant feeding in the context of SVD, breastfeeding is not recommended specifically where the mothers are exposed or, symptomatic and to prevent the infants from getting the disease. It is therefore important to protect, promote and support breastfeeding in the context of SVD by using acceptable Breastmilk Substitute (BMS) such as the Ready to Use Infant Formula (RUIF).

Given the high number of infected and affected children, as well as the nature of the disease, it requires clear technical guidance and appropriate nutritional support. These Guidelines have therefore been developed to provide practical guidance to frontline health workers, key decision makers, and emergency response teams on crucial preparedness and response considerations to nutrition actions in the context of SVD.

I extend special appreciation to all Development Partners, Implementing Partners, Non- Governmental Organizations, Civil Society Organizations, and Academia for their support in updating these SOPs and Guidelines.

I appeal to all the frontline workers, managers, and emergency response teams to follow the guidance provided herein for continued delivery of essential nutrition actions in the context of SVD.



Dr. Henry G. Mwebesa

Director General Health Services

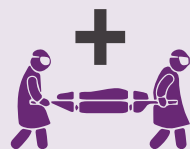
1 INTRODUCTION

On 20th September 2022, Uganda confirmed a case of Ebola Sudan Virus Disease, (SVD) in Ngabano Village of Madudu Sub-County, Mubende district. Concurrently, two sub-counties; Kiruma and Madudu reported a cluster of six unexplained deaths that had occurred between 1st and 15th September 2022 that were classified as probable cases of Ebola.

BY 3 NOVEMBER 2022,



131
confirmed cases



49 deaths (CFR 37%)
had been reported in



7 districts

Mubende, Kassanda, Kyegegwa,
Bunyangabu, Kagadi, Kampala
and Wakiso

This includes:



18 health workers of whom
6 died (HW CFR 33%), and



33 cases reported among
children with **18** deaths
(child specific CFR 56%).

A total of **61** people
including children have
recovered from the disease.

Ebola Sudan Virus Disease (SVD) outbreak also poses a risk to countries bordering Uganda. SVD is a serious, often fatal disease in humans. The virus is transmitted to humans from wild animals and spreads amongst populations through human-to-human transmission. The average case fatality rate (CFR) is more than 50% without supportive care. During previous SVD outbreaks, estimated CFR ranged from 41% to 100%. The lack of an approved vaccine and therapy for the Sudan strain represent an additional challenge in curbing the outbreak. Given the high number of infected and affected children, as well as the nature of the disease, it requires clear technical guidance and appropriate nutritional support.

These Standard Operating Procedures (SOPs) are intended to provide practical guidance to frontline health workers, key decision makers, and emergency response teams on crucial preparedness and response considerations to nutrition actions in the context of Ebola. The SOPs also guide the continued implementation of nutrition actions while minimizing transmission risks. This technical guidance will supersede the previous guidance developed in 2019 and will be updated regularly, given the changing context of Ebola in Uganda and in the African region.

Outline of the SOPs

1. Technical guidance

- Nutrition care of Ebola patients
- Infant and young child feeding in the context of Ebola
- Malnutrition-Ebola Co-morbidity management
- Food assistance in the context of Ebola

2. Operational guidance

- Continuity of essential nutrition services
- Roles and accountabilities of nutrition staff in the ETU
- Roles and accountabilities of nutrition partners in Ebola preparedness and response

2 KEY MESSAGES

Nutrition is a key component in preparedness, response, and management of the Ebola. Past experiences from the Ebola 2014-16 response in West Africa and 2018-2020 DRC reflect plausible pathways through which interrelated social and biological factors affect nutrition¹.

1. Symptoms of Ebola can directly impact nutritional status through interference with nutrient absorption and increases in nutritional requirements due to the catabolic state.
2. Nutritional care for Ebola patients is vital for enhanced immunity and management of various symptoms such as nausea and vomiting that affect food intake and nutrient absorption.
3. Ebola also directly impacts infant and young child nutrition, given the known risk of transmission of the virus through a mother's breastmilk to the infant. Ebola virus has been found in mothers' breastmilk in the acute, convalescent, and asymptomatic phases of the infection, thus posing a significant risk to infants and young children during breastfeeding^{2,3}.
4. In extreme cases, community, and other health measures to curb the spread of the virus could undermine nutrition service delivery, specifically
 - An increase in food insecurity (disruption of markets, disruption of household economic activities/ income, reduced agricultural production, disruption in humanitarian services provision, etc.)⁴
 - A deterioration in care practices (maternal workload, disruption of health services, unavailability of mothers/ caregivers - quarantine, death, mental health, etc.)
 - Reduced access to safe water
 - A deterioration in health facilities' capacities to provide services (curative and preventive activities), and consequently an increase in morbidities both driven by and leading to undernutrition.
 - Disruption in the provision of community-level services

3 KEY CONSIDERATIONS FOR NUTRITIONAL PROGRAMMING IN THE CONTEXT OF EBOLA

1. Nutrition interventions are a key component of the Ebola response that support treatment, management, and follow-up of patients⁵.
 - All patients should receive appropriate nutritional support as part of their diagnosis, treatment, and care according to WHO guidelines and international standards of care⁶.
 - Where possible, locally available food should be provided to all patients suffering from Ebola and modified to meet their nutritional needs, e.g., consistency, flavor, and amount. Very ill patients unable to feed themselves should be assisted.
 - Once an Ebola patient has been cured through consecutive negative PCR tests, discharge planning should begin. Proper attention must be given to ensure convalescent patients have access to food meeting their nutrient requirements.
2. Nutrition preparedness actions and follow-up should include addressing the broader context of issues that may affect the nutritional status of the affected individuals, e.g., food security in the population and other care practices.
 - Activities should be prioritized and adapted to the SVD IPC SOPs to prevent the risk of transmission of the virus.

¹ Sissoko D, Keita M, Diallo B, et al. Ebola virus persistence in breast milk after no reported illness: a likely source of virus transmission from mother to child. *Clin Infect Dis* 2017; 64: 513–16

² Ververs, M., & Arya, A. (2019). Ebola virus disease and breastfeeding: time for attention. *The Lancet*, 394(10201), 825.

³ Nordenstedt H, Bah EI, de la Vega MA, Barry M, N'Faly M, Barry M, et al. Ebola Virus in breast milk in an Ebola virus-positive mother, with twin babies, Guinea, 2015 [letter]. *Emerg Infect Dis*. 2016 Mar [date cited]. <http://dx.doi.org/10.3201/eid2204.151880>

⁴Travel restrictions and displacement could affect smallholder farmers, especially women and cross-border traders. Food prices may increase. Bush

- Health facilities and nutrition sites can be a source of virus transmission if IPC is not managed appropriately. This poses a significant risk, especially to vulnerable populations, including acutely malnourished children.
- Health structures, particularly hospitals, can be quickly overwhelmed by this outbreak, so all interventions should, where possible, aim to reduce the burden on the system.
- Communities should be considered as key players in the response but also a source of transmission if minimum Infection Prevention and Control (IPC) measures are followed. The communities' involvement at all levels; health facility, and community level, will ensure more substantial ownership and an improved impact of programs; however, strict adherence to IPC must be encouraged, and appropriate supplies of Personal Protective Equipment (PPE) must be provided.
- There are specific risks for infant and young child feeding that need to be managed as a core part of case management
- When acute malnutrition is identified during the Ebola treatment, nutritional care according to the national IMAM protocol should begin as soon as possible following patient stabilization.
- The protection of health workers, community resource persons and implementing partners is a priority and appropriate procedures should be implemented.

4. TECHNICAL CONSIDERATIONS

SOP 1: Nutrition care for EBOLA patients in Ebola Treatment Units (ETUs)

Various Ebola symptoms have been identified to interfere directly with food intake and nutrient requirements as highlighted below.

TABLE 1: SYMPTOMS OF EBOLA

MOST COMMON SYMPTOMS	PERCENTAGE RANGE (%)	CLASSIFICATION	PERCENTAGE RANGE (%)
• Fever	90	• Abdominal pain	45
• Fatigue	75 - 80	• Muscle and/or joint pain	40
• Vomiting	65 - 70	• Difficulty swallowing	30-35
• Loss of appetite	65	• Chest pain	35 - 40
• Diarrhea	65	• Dyspnea	25
• Headache	55	• Conjunctivitis	20
• Nausea	-	• Sore throat	20
		• Hemorrhages, bleeding, confusion, hiccups, jaundice, kidney failure)	Less than 10

- Patients suffering from Ebola should be provided with nutritious and balanced meals.
- Patients with Ebola need sufficient energy (kcal), essential nutrients, plenty of fluids and electrolytes to compensate for losses incurred through diarrhea, vomiting and fever.
- Whenever possible, locally available foods should be provided and adapted to meet the patient's nutrient and sensory requirements. Small and frequent meals should be provided to encourage appetite and intake.
- Support should be extended to very ill/weak patients who cannot feed themselves.

⁵ Kodisho et al., 2019. A qualitative study to understand how Ebola Virus Disease affected nutrition in Sierra

⁶ WHO (2014): Interim guideline: Nutritional care for children and adults with Ebola virus in treatment centers?

1. Nutrition assessment of children and adults on arrival at the ETUs

Comprehensive nutritional assessment is essential for gathering the information required to provide quality and individualized nutritional care to ETU patients.

- Weigh all patients in the Ebola Treatment Center (ETC) triage using a decontaminated electronic scale covered with a bag. Weighing upon admission is essential to determine the correct dosage of drugs, nutritional management of products, and facilitate patient follow-up upon admission.
- Screen all the children and adults in triage using a decontaminated or disposable Mid Upper Arm Circumference (MUAC) tape
- Check for bilateral pitting oedema to rule out severe acute malnutrition (SAM) among children 0-59 months.
- All cases identified with acute malnutrition should be managed in accordance with the National IMAM protocols.

TABLE 2: KEY ANTHROPOMETRIC MEASURES

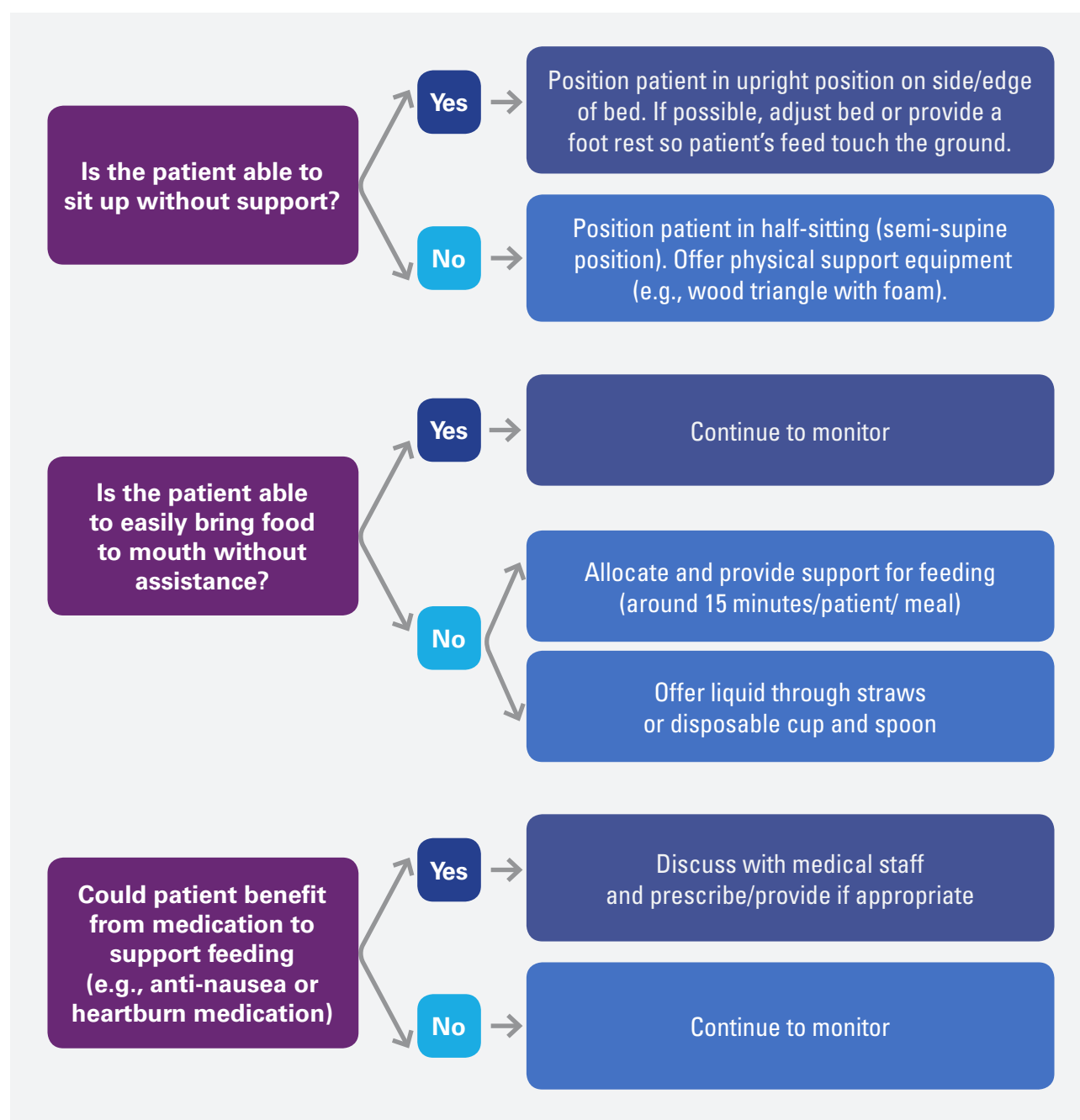
ANTHROPOMETRY	
<ul style="list-style-type: none"> • Weight: Weighing scales should be covered in a plastic bag and changed after each patient. If not feasible, sanitize the weighing scale after each patient. Regularly calibrate scales and standardize to zero before use. • Height/length: Take length (for patients <2 years or unable to stand use length) and height (patients ≥2 years old and able to stand use height) using appropriate instruments. Sanitize instrument after each patient. • MUAC: <ul style="list-style-type: none"> - Take MUAC of all patients below 18 years of age and pregnant and lactating women. - Refer to the national protocols for interpretation - Use disposable tapes, one for each patient or sanitize between measurements. • BMI (Body Mass Index): <ul style="list-style-type: none"> - Calculate the BMI for all non-pregnant patients ≥18 years of age. - $BMI = \text{Weight (kg)} / \text{Height (m}^2\text{)}$ • Bilateral pitting edema <ul style="list-style-type: none"> - Assess all patients for bilateral pitting oedema*. <ul style="list-style-type: none"> (i) Apply gentle pressure bilaterally and observe for signs of pitting edema; first in feet below the ankles (+), then lower legs (++), than arms (+++). (ii) Ensure IPC adherence during the assessment - Classify according to the table below 	
OBSERVATION	CLASSIFICATION
No oedema	(0)
Bilateral oedema in both feet (below the ankles)	+ / (Grade 1) mild
Bilateral oedema in both feet and legs, (below the knees) hands or lower arms	++ / (Grade 2) moderate
Bilateral oedema observed on both feet, legs, arms, face	+++ / (Grade 3) severe

- Conduct a blood glucose test using the blood glucose meter and treat accordingly.
- Conduct a comprehensive breastfeeding assessment for lactating mothers with children under 24 months breastfeeding and provide appropriate support
- Take weights daily for all patients where feasible to monitor progress and any reduction in weight, which could be a risk factor in overall health and nutrition management.

2. Nutritional care of patients in Ebola Treatment Centers⁷

1. To support the nutrition feeding, the nutrition team should conduct a feeding assessment for the Ebola patient
2. An appetite test should be conducted to assess the amount of food the patient can consume, while the tolerance test assesses the patient's reaction to food intake. The first disorders caused by food intolerance are digestive: pain, diarrhea/constipation, and bloating.

FIGURE 1: NUTRITION PATIENT ASSESSMENT



⁷ pocket guide for front-line health workers- clinical management of patients with viral hemorrhagic fever(<http://www.who.int/csr/resources/publications/clinical-management-patients/en/>) / http://www.who.int/elena/titles/full_recommendations/nutritionEbola/en/

3. The nutritional requirements and support will depend on the patient's age, current nutrition status and the severity of the illness.
4. Patients should be provided with nutritious, locally available, and acceptable food appropriate for their preference if they are conscious and can swallow. If they are too ill to feed themselves, they should be assisted.
5. The food offered to the patient should be palatable, attractive, nutrient-dense; liquid, semi-solid, or solid (depending on the patient's condition); be easy to ingest, and not require assistance from healthcare staff when the patient.
6. Parenteral feeding can be cautiously considered for critically ill patients in line with the Ebola SDV clinical protocols, specifically in treatment centers that are fully equipped with appropriate staff, material, good infection-prevention/control practice, and appropriate management of hazardous waste.

For various reasons, caution should be undertaken when doing Nasogastric tubes (NG) tubes as part of enteral feeding.

- Nasogastric tubes are difficult to monitor, as health staff has limited time.
- Patients with sore throats complain about the pain they cause (there is a risk that patients remove them, creating an infection risk).
- Some patients oppose insertion and retention of the nasogastric tube (or are confused); this decreases the likelihood of benefit versus the risk to staff and increases the risk of tearing staff protective gear and spray during removal.
- Severely ill patients who are bleeding may experience harm from the tube placement.

3. Nutrition support for metabolic and electrolyte imbalances

Ebola Sudan virus disease is often accompanied by metabolic complications that lead to significant changes in creatinine, blood glucose, albumin, serum potassium, serum sodium, serum calcium, amylase, and many other elements. Correcting these disorders is possible with a bespoke dietary intervention. Enteral nutrition remains the preferred feeding route to support the correction of these conditions.

Nutritional expertise is strongly recommended for selecting and carefully preparing appropriate foods, considering the patient's calorie, protein, and other nutrient needs. The biochemical assessment carried out for confirmed patients and critically ill suspected cases make it possible to adapt medical treatment and the patient's diet for the best response to treatment.

As per the national SOPs⁸

- The designated health professionals will take off blood samples for baseline electrolytes assessment.
- A blood chemistry should be done three-hourly until the parameters read normal.
- Special Nutrition needs for EVD patients with renal failure, and severe dysphagia should be considered in the event of total failure of the patient to feed and use parental nutrition as per the nutrition protocol provided by MOH.
- Each electrolyte imbalance requires a different approach to be treated. Treatment of the underlying cause is the most effective way to restore the electrolytes to their expected values.
- Intravenous fluid administration and replacement of any needed electrolyte may be helpful. Minor electrolyte imbalance can be corrected with small dietary changes, like eating more fruits and vegetables or drinking fluids to increase hydration and restore electrolyte balance

⁸ MOH 2015 Standard Operating Procedures and Guidelines for Responding to Ebola/Marburg Virus Disease Outbreaks in Uganda
Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease. Geneva: World Health Organization; 2020.
Licence: CC BY-NC-SA 3.0 IGO.

TABLE 3: KEY BIOCHEMICAL MARKERS FOR ELECTROLYTE IMBALANCES

ELECTROLYTE	KEY MARKERS	DESCRIPTION AND CONSIDERATIONS
Creatinine	0.6 -1.2 mg/dl 52.8 -105.6 mmol/l	<ul style="list-style-type: none"> Creatinine is a waste product that comes from the body from normal wear and tear of the muscles. High levels of creatinine indicate a problem with kidney functionality. Creatinine concentrations have been abnormally high during the first half of the symptomatic period in most survivors and Higher until death in the fatal cases <p>Treatment</p> <ul style="list-style-type: none"> - Hypercreatininaemia: >1.2 mg/dl–Diet low in protein: 0.6 to 0.8 g/kg/d, Salt < 2.4 g/d per day: * 500 to 2000 ml of drinks * Still water (if possible, less mineralized). - If malnourished- follow the national IMAM protocols
Hypoglycemia	73 -118 mg/dl 4.052 -6.55 mmol/l	<ul style="list-style-type: none"> Hypoglycemia is a prevalent disorder in Ebola, and its consequences can be dramatic for the patient. Systematically perform the blood glucose test on admission for all patients using the Glucometer and quickly correct hypoglycemia. <p>Treatment</p> <ul style="list-style-type: none"> - Hypoglycemia<73mg/dl - Provide 50 ml of sugar water or 2 tsp of honey, If the patient cannot swallow, use a 10 ml syringe, and regularly give the child 10-20 kg; If the child cannot drink: place a teaspoon of sugar/honey (5 grams) moistened with a bit of water under the child's tongue, for children weighing less than 10 kg - If this is not feasible, then Isotonic IV fluids can be provided in line with clinical guidance on dehydration (normal saline, 5-10% dextrose solutions dissolved in water, and lactated ringer solution). - Rehydration for children with severe acute malnutrition should follow the national protocol.
Albuminemia	3.3-5.5 g/dl 48 –80 µmol/l	<ul style="list-style-type: none"> Very high levels of aspartate aminotransferase (AST) and alanine aminotransferase (ALT) were observed during the disease. <p>Treatment</p> <ul style="list-style-type: none"> - Hypoalbuminemia: 3.2-2.0 g/dl, without edema–3 meals for 4 food groups, Protein: 2.0-2.2 g/Kg/D; + With 2 eggs per day (source of albumin) - Hypoalbuminemia < 1.7 g/dl with edema: Give F75:130-170 ml/Kg/Day to provide 100-130 Kcal/Kg/J. This can be provided over 6 to 8 meals/per day
Kalemia	0.141 -0.199 g/L 3.6 -5.1mmol/l	<ul style="list-style-type: none"> Hypokalemia is usually caused by low dietary intake or unreplaced fluid loss from the GI tract and urine and can be seen after excessive vomiting and loop diuretic use. Potassium losses in EVD may be significant, and symptoms of severe hypokalemia include generalized weakness and lassitude, muscle necrosis, impaired respiratory function due to ascending paralysis, and cardiac arrhythmias, which have been reported among Ebola-positive patients. <p>Treatment</p> <ul style="list-style-type: none"> - Mild hyperkalemia (5.5 to 5.9 mmol/l) * Reduce by half daily intake (<3 g/day) * Limit fruits and vegetables that contain potassium * Avoid RUTF (PPN, F100 * Increase water by drink (weakly mineralized if possible). - Moderate to severe hyperkalemia-Appropriate medical treatment, accompanied with: * A diet low in potassium (2 g/day) * Increase drinking water (weakly mineralized if possible). * Avoid RUTE, F100, BP 100 - Hypokalemia <3.5 mmol/l -Medical treatment (potassium recharge by KCL), accompanied by: * A diet rich in potassium (3 to 4 g/day) * Check regularly potassium intake

ELECTROLYTE	KEY MARKERS	DESCRIPTION AND CONSIDERATIONS
Natremia	2.94 -3.33 g/l 128 –145mmol/l	<ul style="list-style-type: none"> Hyponatremia and hypernatremia are disorders of water balance and are very common, especially in hospitalized patients. Once identified, prompt management is necessary to avoid delayed correction, as prolonged hypernatremia is associated with increased hospital stay and mortality. Hyponatremia is defined as serum sodium < 128 mmol/l. Hypernatremia is defined as serum sodium > 145 mmol/l. Most hyponatremia and hypernatremia cases are mild, but they are clinically significant. <p>Treatment Hypernatremia > 145 mmol- Limit food intake high in sodium Avoid RUTF, F100, BP 100...) because enriched in sodium</p> <ul style="list-style-type: none"> Hyponatremia: < 128 mmol- accompanied appropriate medical treatment Consumption of foods high in sodium with 3 meals in respecting the 4 stars (groups): if malnourished consider use of RUTF, F100, BP 100...because enriched with sodium in line with national protocol. If hypervolemia Reduce fluid intake and avoid natural diuretic foods
Calcemia	8.0 -10.3 mg/dL 2 -2.6 mmol/l	<ul style="list-style-type: none"> Hypocalcemia occurs when you have too much calcium in the blood, while hypercalcemia occurs due to a lack of adequate calcium in the bloodstream <p>Treatment Hypercalcemia=appropriate medical treatment: * + Oral Rehydration (ORS) * + Limited intake of fruits and vegetables rich in calcium +* Avoid RUTF, F100, BP 100...because they are enriched with calcium, * + Hypo calcemic diet (8 to 8.4 mg/day).</p> <ul style="list-style-type: none"> Hypocalcemia <8.0 Daily calcium intake: 3 g/day; consider using foods rich in calcium or calcium supplements.

4. Nutrition care for discharged patients from the ETU

It would be essential set up a monitoring system with a monthly/weekly visit for medical and nutritional monitoring, which will focus on the following:

- Assessment of the nutritional status and referral, if necessary, to the appropriate structures
- Distribution of the food ration in line with the food assistance SOPs:

Nutritional monitoring of orphaned/separated children discharged should be done every week with support from the Para social team and a nutritionist responsible for activities in the community. The following activities will need to be considered:

- Assessment of feeding problems
- Distribution of RUIF or UHT milk according to the age of the child
- Raising awareness among members of the household about the appropriate IYCF practices and essential family practices
- Monitoring of vaccination status and regularity of attendance at the Preschool Consultation
- Referral of the child to a health facility if necessary.

SOP 2: Infant and young child nutrition in the context of Ebola

1. The Ebola virus is present in breast milk and can be transmitted to infants during breastfeeding from the mother.
2. Where SDV is confirmed in a breastfeeding mother, the risk of Ebola infection from breastmilk outweighs the morbidity and mortality associated with not breastfeeding.
3. The safest replacement feeding for infants under six months is Ready to Use Infant Formula (RUIF).
4. While breastfeeding is the best and recommended practice for feeding infants under six months, these guidelines are reviewed in the Ebola context, given the increased risk of infection and mortality associated with Ebola.
5. Wet nursing is not recommended due to the risk of Ebola and other viruses, including HIV/hepatitis, etc.
6. For infants aged six months to 1-year, breast milk substitutes (whole liquid fat pasteurized or UHT animal milk or infant formula, preferably RUIF) may be provided in addition to the appropriate complementary food in line with the MIYCAN national protocols.
7. Therapeutic milk like F75 and F100 are not breastmilk substitutes and should only be used for treating severe acute malnutrition in line with the national protocols on Integrated management of acute malnutrition (IMAM).

2.1 Breastfeeding recommendations in the context of Ebola⁹

SCENARIO 1 - Infected and symptomatic mother with Ebola

a) Infant < 6 months is confirmed with Ebola

- If the infant is symptomatic, a blood test should be done to determine if the child is Ebola positive or not in line with the national protocols
- Nutrition support to Ebola infected mothers and their children who remain with them, is needed during treatment.
- If the mother is well enough to breastfeed and she is willing to, she should receive adequate support (*including nutrition support*).
- In the event the mother is not able to or willing to breastfeed, breastfeeding should be stopped, and the child initiated on RUIF

KEY RECOMMENDATIONS

- *If a breastfeeding woman and her child are both diagnosed with Ebola, and breastfeeding is not feasible, breastfeeding should be discontinued, and the child be given RUIF*
- *If the child is under six months of age and RUIF is not available, or the child cannot be cared for, then the option to continue breastfeeding may be considered.*
- *Give psychosocial support to the child and mother*

b) Infant < 6 months is negative/asymptomatic

- A breastfeeding mother with symptoms of Ebola (confirmed, suspected, or probable Ebola case) has an elevated risk of transmitting it to the baby.
- Children without confirmed Ebola infection who are exposed to the breastmilk of women with confirmed Ebola Virus disease should be considered contacts

⁹ Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

- A blood test should be done to determine if the child is Ebola-positive or not in line with the national protocols.
- For the confirmed breastfed **negative** or **asymptomatic** infant of an Ebola-infected mother, the risks of Ebola transmission via breastmilk outweigh the risks associated with replacement feeding.
- The baby should be separated from the mother and RUIF should be provided.
- An Ebola-positive mother who abruptly stops breastfeeding will need help to express her breastmilk to alleviate pain and prevent inflammation. Her breastmilk is a contaminated product and should be treated as per infection control protocols.

KEY RECOMMENDATIONS

- *Children without confirmed Ebola infection who are exposed to the breastmilk of women with confirmed Ebola Virus Disease should be considered contacts. The child should stop breastfeeding and should undergo close monitoring for signs and symptoms of Ebola for 21 days. The child should be given RUIF as needed.*
- *Post-exposure prophylaxis for Ebola virus Disease can be considered for children exposed to the breastmilk of Ebola-infected women on a case-by-case basis and in accordance with existing research protocols*
- *Give psychosocial support to child and mother*

c) Complementary feeding for a positive/symptomatic child 6-12 months with Ebola

- If the child is symptomatic, a blood test should be done to determine if the child is Ebola positive or not in line with the national protocols
- If the mother is well enough to breastfeed and she is willing to, she should receive adequate support (*including nutrition support*).
- If the mother is not able to or willing to breastfeed, breastfeeding should be stopped, and the child initiated given UHT or animal milk based on availability, in addition to optimal complementary feeding (*in line with the national MIYCAN protocols*)
- Provide the child and mother with psychosocial support.

d) Complementary feeding for a negative/asymptomatic

- Children aged 6-12 months without confirmed EVD infection who are exposed to the breastmilk of women with confirmed EVD should be considered contacts. The child should stop breastfeeding and undergo close monitoring for signs and symptoms of EVD in the isolation center for 21 days.
- The child should be given UHT, or animal milk based on availability in addition to the optimal complementary feeding.
- Post-exposure prophylaxis for Ebola can be considered for children exposed to the breastmilk of Ebola-infected women on a case-by-case basis and in accordance with existing research protocols



SCENARIO 2 - Negative/Asymptomatic mother

a) Infant <6 months is negative/asymptomatic

- The national IYCF guidelines apply. However, it is important to reiterate that the practice of wet nursing is not recommended in any context, but especially not in the context of an Ebola outbreak, hence the orphaned infant should be provided with replacement feeding (RUIF).

b) Infant <6 months is Ebola positive/symptomatic

- Separate the mother and infant
- Support the mother to express milk if she is willing and able to and ensure that the child is feed as needed.
- Provide mother and child with psychosocial support.
- Caregivers should not risk becoming infected. They should be alert for any symptoms.

Support 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 in the future. Efforts should be made to protect, promote, and support breastfeeding.
- Lactating women wishing to be able to resume breastfeeding when it is safe and appropriate should be supported to retain breast milk 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 helped on expressing breastmilk 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.

Management of orphaned children 0-23 months

- IYCF national guidelines apply but it is important to reiterate that the practice of wet nursing is not recommended in any context and especially the context of Ebola, hence the orphaned infant should be provided with replacement feeding (RUIF) if <6 months or/and ultra-heat treated (UHT) milk and complementary feeding if 6-23 months.

IYCF recommendations for recovered Ebola children and mothers

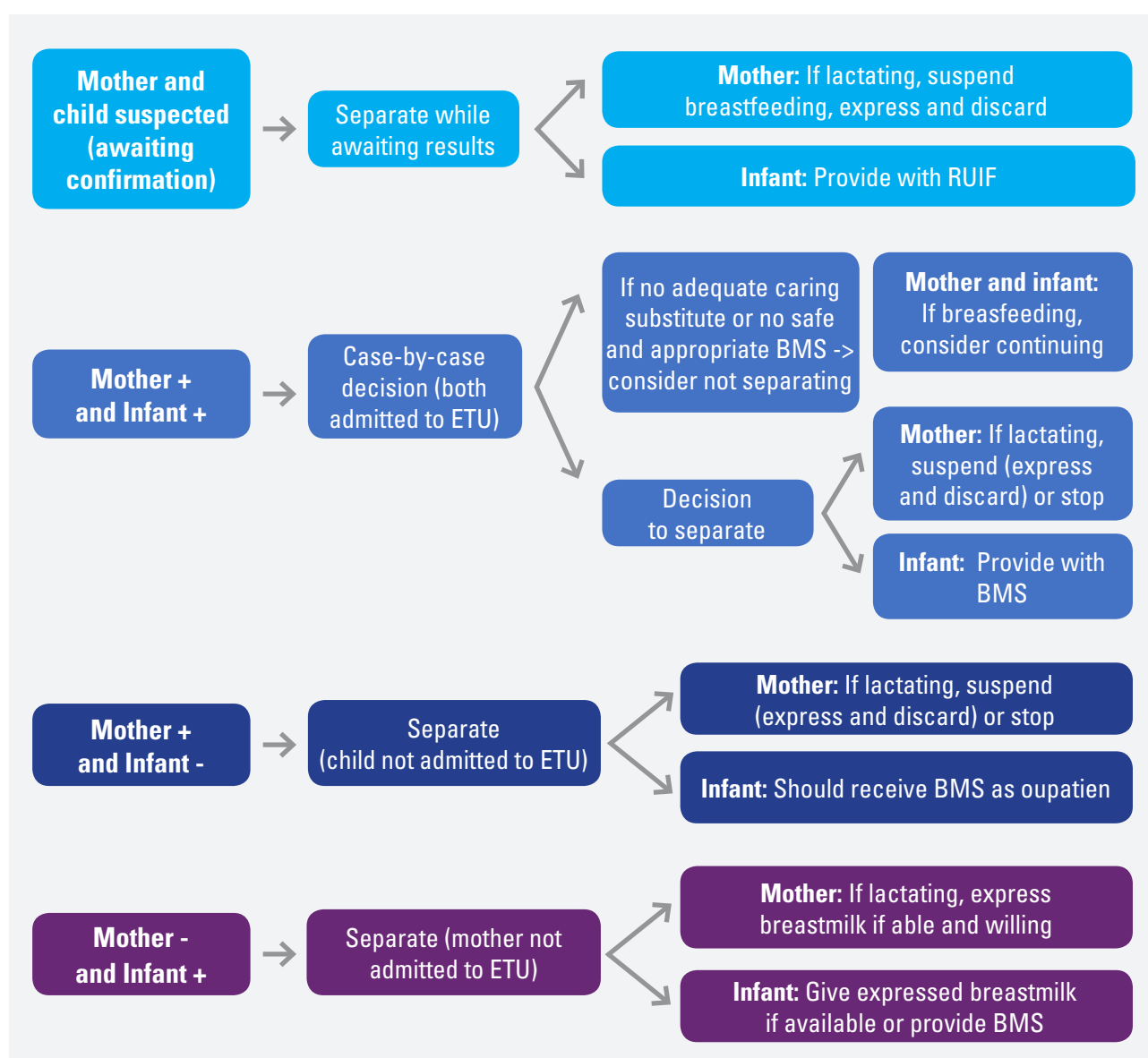
- Lactating women who have stopped breastfeeding and are discharged as cured of EVD and have a young child who is asymptomatic or EVD negative should not resume breastfeeding until there have been two negative breastmilk RT-PCR tests (separated by 24 hours).
- Breastmilk should be tested immediately prior to or upon discharge from the ETU. Likewise, all lactating women who had EVD while pregnant should have their breast milk tested for Ebola virus by RT-PCR. If Ebola virus RNA is detected, breast milk 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.¹⁰
- As part of the discharge kit, include a household food ration in line with the food assistance protocols for all children and infants (6-23 months) who have recovered from Ebola for 30 days.

¹⁰ WHO (2020) Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease. Geneva: World Health Organization, pp-1-43

KEY RECOMMENDATIONS

- A woman who has recovered from Ebola, cleared viremia, and wants to continue breastfeeding should wait until after two consecutive negative Ebola breastmilk tests by RT-PCR, separated by 24 hours. During this time, the child should be given an appropriate breastmilk substitute provided
- Children below 6 months of age whose mothers have recovered from Ebola and mothers do not resume breastfeeding should be fed on RUIF until six complete months of age.
- Breastfeeding women who would like to discontinue, should be supported, counselled, and offered lactation inhibition.
- Introduce AFATVAH complementary foods, including full cream UHT animal milk at six months of age.

FIGURE 2: DECISION TREE FOR MOTHERS-CHILD PAIRS IN AN ETU¹¹



¹¹ Adopted from Global guidance. How to manage infant and young child feeding (including breastfeeding) in ETUs

2.2 Complementary feeding recommendations¹²

In addition to milk, children aged 6-23 months old 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.

- Provide softened food that will be easier for the younger children to eat and swallow this can be in form of mash or puree. For older children, the solid food cut be cut into very small pieces to avoid choking.
- Ensure the provision of food is in line with FATVAH recommendation as outlined in the Uganda infant feeding guidelines (**F=Frequency, A= Amount, T = Thickness (consistency), V = Variety (different kinds of foods), A = Active/responsive feeding, and H = Hygiene**)
 - The frequency of the food will depend on the age i.e., for children aged 6-8 months: give 2-3 meals and 1-2 snacks per day and children aged 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:
 - (i) Staple foods: grains, roots, tubers.
 - (ii) Foods of animal source: meat, chicken, fish, liver, eggs, and dairy products.
 - (iii) Legumes: beans, lentils, peas, and seeds (soak beans and legumes prior to cooking to make them softer and more suitable for children to consume).
 - (iv) Fruits/Vegetables (especially those rich in pro-vitamin A): papaw, mango, passion fruit, oranges; dark green leafy vegetables, carrots, pumpkin, 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 of the appropriate consistency.
- Snacks can include fruit, bread, or other simple traditional foods. Diets which are assessed as not meeting daily micronutrient needs, should be supplemented with micronutrient powder (MNP). As with older patients, local foods should be first choice.
- RUTF or RUSF can be used as supplements if necessary, and child accepts. RUTF in bar or biscuit form should be made into porridge. Paste versions of RUTF/RUSF are not appropriate for those with swallowing difficulties.¹³
- Avoid fruit juices, sodas, or other non-nutritive beverages as they may exacerbate diarrhea and are low in nutrients.¹⁴

2.3 Management of Breast milk substitutes in the context of Ebola

In emergencies, targeting and use, procurement, management, and distribution of breast milk substitutes (BMS), should comply with the Operational Guidance for The International Code of Marketing of Breast Milk Substitutes (the Code), and all relevant World Health Assembly Resolutions.

Because the Ebola Virus is present in breastmilk, the MoH has recommended the use of Ready to Use Infant Formula¹⁵ (RUIF) as the breast milk substitute for all infants 0 to 6 months of age that meet the following criteria:

- Confirmed Ebola infected infant less than six months of age + Confirmed Ebola infected mother- whose mothers are not able to breastfeed

¹² FAQ 5. How to manage infant and young child feeding (including breastfeeding) in ETUs?13 Democratic Republic of Congo Ministry of Health National Nutrition Programme with the support of UNICEF-DRC, adapted from WHO (2018) Protocol for Nutritional Care for Adults and Children with Ebola Virus Disease Hospitalized in Treatment Centres (ETC), pp. 1–17

¹³ Democratic Republic of Congo Ministry of Health National Nutrition Programme with the support of UNICEF-DRC, adapted from WHO (2018) Protocol for Nutritional Care for Adults and Children with Ebola Virus Disease Hospitalized in Treatment Centres (ETC), pp. 1–17

¹⁴ Partners in Health (2015). Nutritional Care for Patients at Maforki Ebola Holding and Treatment Centre.

¹⁵ RUIF is a ready to drink breast milk substitute that does not need any preparation, cooking or mixing.

- Asymptomatic Infants less than 6 months of age + confirmed Ebola-infected mother
- Negative Ebola mother + Confirmed Ebola-infected infant less than six months in absence of expressed breastmilk.
- Children under 6 months of age receiving RUIF whose mothers' Breastmilk continues to test positive for Ebola.
- Infant under six months orphaned by Ebola (mother succumbed to Ebola)

RUIF will be provided to the identified children in ETUs, isolation centers, quarantine centers, and at home. Follow up will be ensured through an identified caregiver, or social worker.

2.3.1 Assessing the need for Ready to Use Infant Formula

At all points, conduct an initial rapid assessment to look for "alerts" indicating risk to infant & young child feeding practices (e.g., reports of mothers stopping breastfeeding, malnourished infants < 6 months) and include key information (data) to inform programming, such as:

- Estimated number of infants under 6 months,
- Estimated number of orphans due to Ebola under 6 months
- Estimated number of infants under 6 months who are not breastfed¹⁶. Any non-breastfed infants under 6 months identified during assessments should be referred for a full individual feeding assessment as per the national guidelines.

2.3.2 Handling Breast milk SUBSTITUTE Donations and Supplies

- Currently, UNICEF is the only agency mandated to procure and distribute RUIF to infants 0-6 months of age meeting the criteria set above.
- Where need arises, exceptional approval needs to be got from the MoH to procure RUIF.
- Donations of any breastmilk substitute including RUIF should not be allowed and may put infants' lives at risk. Requests for BMS donations are unacceptable as they establish demand for donated formula that may be hard to control.
- RUIF is only allowed in line with the criteria described in the previous section.
- Any donations of BMS (such as infant formula, other milk products, bottles, and teats) that have not been prevented should be securely stored and immediately reported to the MoH. The MoH has the responsibility to make decisions on how to handle any unsolicited breast milk substitutes within two weeks of receipt
- In consultation with the MoH, a decision will be taken by the Nutrition task force on the most suitable strategy to handle the donation within two weeks of receipt of the donation

2.3.3 Targeting and use of RUIF

- The decision to use RUIF should be taken by a health worker trained in Nutrition and Ebola case management.
- Follow up of artificially fed infants with no complications should include regular monitoring of infant weight, development, and health status at a health / nutrition facility no less than twice a month.
- Community health workers should conduct at least two home visits per month to ensure there is weekly contact at a minimum. Higher frequency may be necessary depending on the level of support required and the infant's vulnerability.
- MoH will provide training and support to health workers to ensure they are able to train staff and mothers on how to use RUIF using standardized training materials
- RUIF is not a guarantee of safety – appropriate use, hygiene of feeding utensils and storage considerations remain essential. RUIF supply has considerable cost and storage implications that need careful consideration.

¹⁶ In the beginning, this can be estimated from key informant interviews and opportunistic sampling to give an alert. In later phases, this indicator can be measured through standardized surveys where necessary

RUIF supply has cost and storage implications that need careful consideration.

- Labels of any distributed RUIF should:
 - Be in an appropriate language for the affected population
 - Manufactured and packaged in accordance with the Codex Alimentarius standards
 - Commercial infant formula branding (name / logo) should not be visible
 - Adhere to the specific labelling requirements of the international code
 - Labels should state the superiority of breastfeeding
 - Labels should indicate that the products should be used only on health worker advice
 - Labels should warn about health hazards of using infant formula
 - There should be no pictures of infants or other images idealizing the use of infant formula

2.3.4 Procurement of RUIF

- Procurement for RUIF should be coordinated under the MoH, uncontrolled donations of breastmilk substitutes are not allowed and may put infants' lives at risk
- UNICEF is the only agency that has obtained clearance from the MoH to procure RUIF.
- Unsolicited donations of breastmilk substitutes are not acceptable as it sets up a demand that may be hard to control. Any other partners that have support for RUIF should seek clearance from the MoH.
- Interventions to support non-breastfed infants should always include a component to protect breastfed infants for example, through budgeting for activities which promote breastfeeding and support breastfeeding mothers.
- Procured RUIF should meet the following criteria:
 - Manufactured and packaged in accordance with the Codex Alimentarius standards¹⁷
 - Suitable for infants under 6 months
 - Have a shelf-life of at least 6 months on receipt of supply.
- Procurement should be managed so that RUIF is always adequate and continued for as long as the targeted infants need it- that is, until at least 6 months of age, after which infants should be supported to transition to complementary feeding which includes some other suitable source of milk and / or animal source food.
- It is recognized that infants develop at different rates and are particularly vulnerable during the transition period when complementary feeding begins. A buffer stock of 2-4 weeks of RUIF while infants transition to complementary feeding can be considered on an individual basis, however the focus should be on strong complementary feeding counselling at this stage.

2.3.5 RECOMMENDATIONS ON PREPOSITIONING AND DISTRIBUTION OF RUIF¹⁸

To respond to the increasing and immediate needs for nutrition commodities including RUIF during the response, supplies prepositioning will be very crucial. Below are some of the recommendations for the proportioning

- Continuously assess the supplies needs and supplies gaps
- Ensure the nutrition supplies are prepositioned at the ETUs to enable immediate access to the supplies by the mothers/caregivers and the children in need.
- Provision of should be carried out discretely so as not to discourage breastfeeding mothers
- Prepositioning will be preceded by an alert at the health facility to minimize the unintended consequences of use, including the sale of the products
- Do not use general or blanket distributions as a platform to supply breastmilk substitutes
- Dried and liquid milk products should not be distributed as a single commodity in general or in blanket distributions as they may be used as a breast milk substitute, exposing both breastfed and non-breastfed

¹⁷ http://www.codexalimentarius.org/standards/list-of-standards/en/?no_cache=1

¹⁸ https://www.enonline.net/attachments/3127/Ops-G_English_04Mar2019_WEB.pdf

infants to risks.

- Where milk powder is commonly used or widely available in a population, recommend and provide practical guidance to incorporate it into cooked family meals and advise against use as a breast milk substitute.
- Per the Code, there should be no promotion of infant formula at the point of distribution, including displays of products or items with company logos or logos on vouchers.
- Storage of infant formula should not be in view of beneficiaries.
- When any BMS is provided, ensure adequate breastfeeding counselling and support for breastfeeding mothers.

2.3.6 Determining RUIF requirement

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 semi-solid or solid diet. Those on a liquid diet should only receive milk while those on semi-solid or solid diet should also receive complementary foods. See tables below.

TABLE 5. RECOMMENDED AMOUNTS 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

- RUIF must be used within 2 hours after opening, after that discarded. Once a carton of UHT has been opened it should be used or discarded within 2 hours if left at room temperature; if refrigerated contents should be used within 7 days after opening.

TABLE 6: RECOMMENDED AMOUNT OF BMS FOR CHILDREN 6-23 MONTHS OF AGE.

AGE	TOTAL AMOUNT DAILY	NUMBER OF FEEDS PER DAY	AMOUNT PER FEED
Milk + complementary foods (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 cup feeding, the first choice would be a feeding cup¹⁹ and if not available, a syringe may be used; the syringe must be replaced for each feeding.

SOP 3: Management of acute malnutrition in the context of Ebola

RECOMMENDATIONS FOR THE MANAGEMENT OF ACUTE MALNUTRITION IN THE CONTEXT OF EBOLA²⁰

1. *Recommendations for the management of acute malnutrition in the context of Ebola Ebola infected mothers and their children who are identified as having acute malnutrition, need to be treated in line with national IMAM protocols.*
2. *The intake of high nutrient-dense foods (e.g., ready-to-use-therapeutic food [RUTF] and ready-to-use-supplementary food [RUSF]) may be important in acutely malnourished patients in the early phase of the Ebola who still have appetite and no eating difficulties*

¹⁹ For information on paladai cups: <https://shop.laerdalglobalhealth.com/product/nifty/>

²⁰ https://www.enonline.net/attachments/2176/DC-Infant-feeding-and-Ebola-further-clarification-of-guidance_190914.pdf

TABLE: 7 NUTRITION STATUS CLASSIFICATION

INDICATORS	AGE	MODERATE ACUTE MALNUTRITION (MAM)	SEVERE ACUTE MALNUTRITION
Bilateral pitting Oedema	All	No	Yes
W/H	Children	<-2 to - 3 Z-score	< - 3Z-score
BMI	Adults	16 to <17	<16
MUAC	Children: 6 - 59 mo. Adults	115 to <125mm	<115 mm <180 mm* With recent weight loss

SOP 4: Food assistance in the context of Ebola

Food assistance remains one of the critical interventions in responding to Ebola. To enhance food assistance, various strategies will be explored as reflected below

- Wet feeding for patients and health workers in ETUs, isolation centers and quarantine in line with the nutrition clinical management guidance
- Procurement and distribution of dry rations (food commodities) through existing systems for households of; active cases in ETU, suspected cases in isolation centers, discharged patients and, bereaved families
- Implementation of vouchers systems through local partners/food vendors

4.1 Guidance on food provision and selection for Ebola Patients

- Ensure the food given provides the necessary nutrients. A minimum of four food groups should be provided to patients able to take the food orally.
- Grains and grain products and all other starch foods (maize/maize flour, rice, sweet potato, cassava)
- Legumes and pulses, nuts, and seeds - Alternate between peas, lentils, cowpeas, pigeon peas, soya, nuts, edible seeds, lean meat, fish/seafood, and poultry in your daily meals. Vary within the sources such as peas, beans, etc.)
- Milk and milk products – consume fresh milk, sour milk, or yogurt daily.
- Vegetables (alternate between dark green leafy vegetables such as indigenous vegetables, spinach, kale, etc., vegetables that are yellow or orange that give vitamin A for immunity such as carrots, pumpkin, bell pepper, and other vegetables that do not fall in these two classes such as courgettes, cabbage, French beans
- Fruits – eat plenty of fruits daily. Consume yellow or orange fruits such as mangoes and pawpaw that provide vitamin A for immunity; citrus fruits such as oranges and lemons that are rich in vitamin C for immunity and quick healing and other fruits like passion, melons, and pineapples.
- Beyond maintaining a healthy diet, increase consumption of yellow and orange fruits and citrus fruits that help to boost immunity.

- Consume foods that reduce inflammation, such as seeds, nuts, green leafy vegetables, fruits
- Avoid or reduce consumption of foods that cause inflammation, such as highly refined and processed foods like highly processed cereals, processed meats (sausages, smokies), deep-fried foods, sugar-sweetened drinks, trans fats, and sweets.
- Support the patients to undertake physical activity daily while minimizing contact to prevent the risk of cross-infections
- Support the patients in drinking plenty of water. Eight glasses (2 liters) spread throughout the day at a minimum.
- Support and advice the patients to avoid consumption/ use of alcohol, tobacco, and other recreative substances

4.2 Procedures on food assistance or nutrition support

- Ebola infections can provoke anorexia, vomiting, and difficulty in swallowing. Inappropriate feeding can contribute to an ineffective immune response to the disease.
- Due to the increased nutrient requirements, nutrition support in the ETUs is an essential part of the case management of EVD patients.
- Food provision should be based on local preferences, easy to digest, well-balanced, and culturally acceptable.
- Food assistance or nutrition support should be part of the management package.
- Food should be served in the isolation facility or treatment unit in line with optimal infection prevention and control practices. Food must not be prepared by caretakers or family members within the ETU.
- Where available, food in ETUs or isolation units should be served using disposable containers and utensils; otherwise, plates inside the high-risk area or ETU should be disinfected and washed before being used for food service.
- The nutrition team, health workers, or designated assistants should support patients who cannot eat independently.
- Where food is provided through a catering service, a nutritionist/focal person should work closely with the catering team to guide food choices and feeding needs for clients.
- The type of nutritional care for patients should be based on their tolerance to oral food. For patients who cannot eat (or have no appetite) and are dehydrated, rehydration should take precedence and follow national protocols.
- For children who are ill, encourage the child to drink and to eat - with lots of patience, Feed small amounts frequently, give foods that the child likes, Give a variety of nutrient-rich foods
- During recovery from illness, Give extra breastfeeds, feed an extra meal, give extra amount of food, Use extra rich foods, Feed with extra patience and love.
- Nutritional support must balance the individual's needs and food tolerance. Food should be easy to digest, well-balanced, and culturally acceptable.
- When feasible, families can also provide food for their relatives in the ETUs and isolation units, as this food is likely to be more acceptable to the patients. However, family food should be handed over to the ETU team for serving.

4.3 Food assistance to health workers in the ETU

With the weakened sense of trust that comes with the management of Ebola within and across health facilities, providers, communities, and households, health workers in the ETUs therefore require food and nutrition support while on duty in the ETU. This at the same time reduces the level of contact with people outside the ETU and limits transmission.

- All health workers should have access to a healthy diet. This is a diet that helps maintain and improve overall health by providing essential nutrients, fluid, micro and macronutrients and adequate calories in line with the guidance above.
- Hot meals should be provided to the health workers from a canteen within the ETU location.

4.4 Food assistance to the Ebola patients on discharge

- Nutrition support after discharge from the ETUs is essential to support full recovery.
- The Food assistance discharge package should cover the required amount of nutrition for a minimum period of one month and a maximum period of 3 months.
- Households of discharged patients will receive a food ration consisting of cereal(400g), pulses (60), vegetable oil (30g) and salt (5) per person per day
- Patient identified as at risk of acute malnutrition should be monitored closely on discharge and linked to the survivor's clinic where they will receive integrated care.

4.5 Food assistance to other affected population

- The affected population includes families of those in isolation or ETU or/ and the bereaved families.
- These affected household will receive food assistance through dry rations for a period of minimum one month and a maximum period of 3 months
- In cases where there are multiple contacts in the same household, only one monthly family ratio, regardless of the number of contacts in the same household, will be provided
- Currently, the government, with support from WFP and other partners, will provide a ration consisting of cereals (400g), pulses (60g), vegetable oil (30g), and salt (5g) per person per day, depending on the six people household size.

4.6 Food handling

The guidelines below should be observed by all the food handlers working in the ETU, isolation, and quarantine centers, including contracted food vendors.

- Personal hygiene should always be observed; clean attire, including an apron or overall, frequent handwashing, trimmed fingernails, and suitable and effective hair restraints.
- Contamination of food and utensils should be avoided through observation of proper hygiene, covering exposed food, proper storage of foodstuff and utensils, avoid touching utensils and food contact surfaces.
- Serve food on disposable crockery to be eaten with disposable cutlery (if available). If not, food should only be served with clean, sanitized, and dry utensils. Non-disposable crockery and cutlery should be appropriately disinfected following the IPC measure in-between usage.
- Food contact surfaces, utensils, carts, and equipment should be cleaned according to the appropriate procedures before and between uses and when contamination occurs.
- Proper and timely disposal of leftover waste should always be observed.
- All external food handlers should have the required hygiene certificates as proof of training

5. OPERATIONAL CONSIDERATIONS

5.1 Continuity of essential services

PRIORITY ACTIVITIES	RECOMMENDATIONS
Coordination	<ul style="list-style-type: none"> Enhance sectoral coordination between the national and subnational levels with Systematic participation in all the relevant meetings specifically the case management Liaison and regular information sharing with the national mechanism for the management of epidemics/health emergencies Implement weekly calls at decentralized level: the focal point of the “Region” / sub national cluster organizes weekly calls with partners. The discussions will focus on the pipeline and supply, the challenges of partners and access to services by beneficiaries Organize weekly calls between the national cluster team and the cluster focal points at the regional/ sub national level
Information management	<ul style="list-style-type: none"> Maintain regular collection and analysis of admission data (particularly in Hotspot areas) If possible, track any wasted children/ undernourished pregnant and lactating women who have tested positive for Ebola in collaboration with health colleagues to monitor outcomes
Targeted food Distribution/ social protection	<ul style="list-style-type: none"> Ensure that distribution targets the most vulnerable population Ensure that interventions targeting households, include the needs of pregnant and breastfeeding women and infants Ensure that established social safety nets for affected households are nutrition-sensitive targeting the most vulnerable households e.g., those with pregnant and lactating women and of children under 2 years including child headed households and children separated from their parents because of Ebola. Priority distribution should be provided to food insecure areas and those household that may become food insecure due unintended impacts of the epidemic including any containment measures Maintain regular collection of nutrition data on the households effected
Rosk communication and WASH	<ul style="list-style-type: none"> Ensure that the mother and child pair have access to enough safe water for drinking and domestic needs, uses safe and appropriate sanitation facilities, and is reached with critical WASH/IPC supplies and social and behavioral messages. Ensure that hygiene promotion messages include appropriate information targeting caregivers of small children
Maternal, Infant and Young Child Feeding / Counselling for maternal and infant feeding for young children	<ul style="list-style-type: none"> Ensure continuation and scale up of maternal and child nutrition interventions in line with the national protocols, while taking into consideration relevant IPC measures. This will conclude Nutrition counselling to protect against malnutrition for infants, young children, and pregnant women Promotion of exclusive breastfeeding and age-appropriate complementary feeding for the households and families not affected by Ebola Maternal nutrition counseling on maintaining a healthy diet during pregnancy and compliance with Iron and Folic Acid supplementation Small group activities may be able to continue if physical distancing and relevant IPC measures are ensured.
Early identification of screening at household level	<ul style="list-style-type: none"> Early identification of acutely malnourished children by mothers/caregivers at the household level helps identify cases early and reduce malnutrition-related complications. Ensure mothers/caregivers are empowered to use Family MUAC to minimize the risk of infection at household and community level Support continued screening for acute malnutrition in all relevant service points through taking of MUAC, weight and where appropriate height while maintaining IPC procedures to minimize risk of infection.

PRIORITY ACTIVITIES	RECOMMENDATIONS
Management of acute malnutrition	<ul style="list-style-type: none"> • Management of acute malnutrition is a life-saving and essential activity that saves lives and should be sustained while responding to Ebola. • In the event of partial or total restriction of movements, services should get as close as possible to the populations: i.e., at community level • When feasible, ensure programme adaption to simplify processes and reduce risk of transmission can be introduced such as rations for longer durations
Micronutrient supplementation	<ul style="list-style-type: none"> • Micronutrient supplementation will need to be sustained in line with the national protocols

5.2 Roles of nutrition partners In Ebola preparedness and response

	GOVERNMENT	UN AGENCIES	PARTNERS
Policy engagement	<ul style="list-style-type: none"> • Lead on policy development and dissemination • Lead on ensuring nutrition considerations are reflected in Ebola related SOPs, guidance and policies 	<ul style="list-style-type: none"> • Assist the government in development, finalization of all Ebola related protocols 	<ul style="list-style-type: none"> • Support implementation of protocols
Information/ Risks analysis	<ul style="list-style-type: none"> • Lead on nutrition inputs in an Ebola relevant analysis • In liaison with the case management and coordination pillars, lead on the Nutrition risk analysis • Identify and prioritize country needs 	<ul style="list-style-type: none"> • Support needs assessment in line with the respective mandate 	
Coordination	<ul style="list-style-type: none"> • Provides leadership on nutrition in the context of Ebola outbreaks • Facilitate sectoral, inter sector and interpillar coordination • Mobilize expertise relevant for nutrition implementation in the Ebola context. • Convene nutrition specific coordination meeting as appropriate/needed • Facilitates the development and implementation nutrition response strategy 	-	<ul style="list-style-type: none"> • Support in provision of data on the nutrition situation
Capacity development	Facilitates the identification, development and implementation of the necessary tools and trainings for nutrition in the context of Ebola	<ul style="list-style-type: none"> • Co- lead identification, development and implementation of the necessary tools and trainings 	<ul style="list-style-type: none"> • Participate in the Nutrition and Ebola training as needed
Knowledge management	<ul style="list-style-type: none"> • Lead on nutrition information communication and information sharing 	-	-
Resource mobilisation	<ul style="list-style-type: none"> • Lead on funding for sector specific HR including for continuity of care 	<ul style="list-style-type: none"> • Support the government in resource mapping and mobilization based on the need 	-
Supplies assistance	<ul style="list-style-type: none"> • Procurement of nutrition related supplies • Support in distribution of the relevant therapeutic foods as per the national protocols 	<ul style="list-style-type: none"> • Support in the procurement of essential nutrition supplies 	-

5.3 Roles of nutrition staff in the ETU

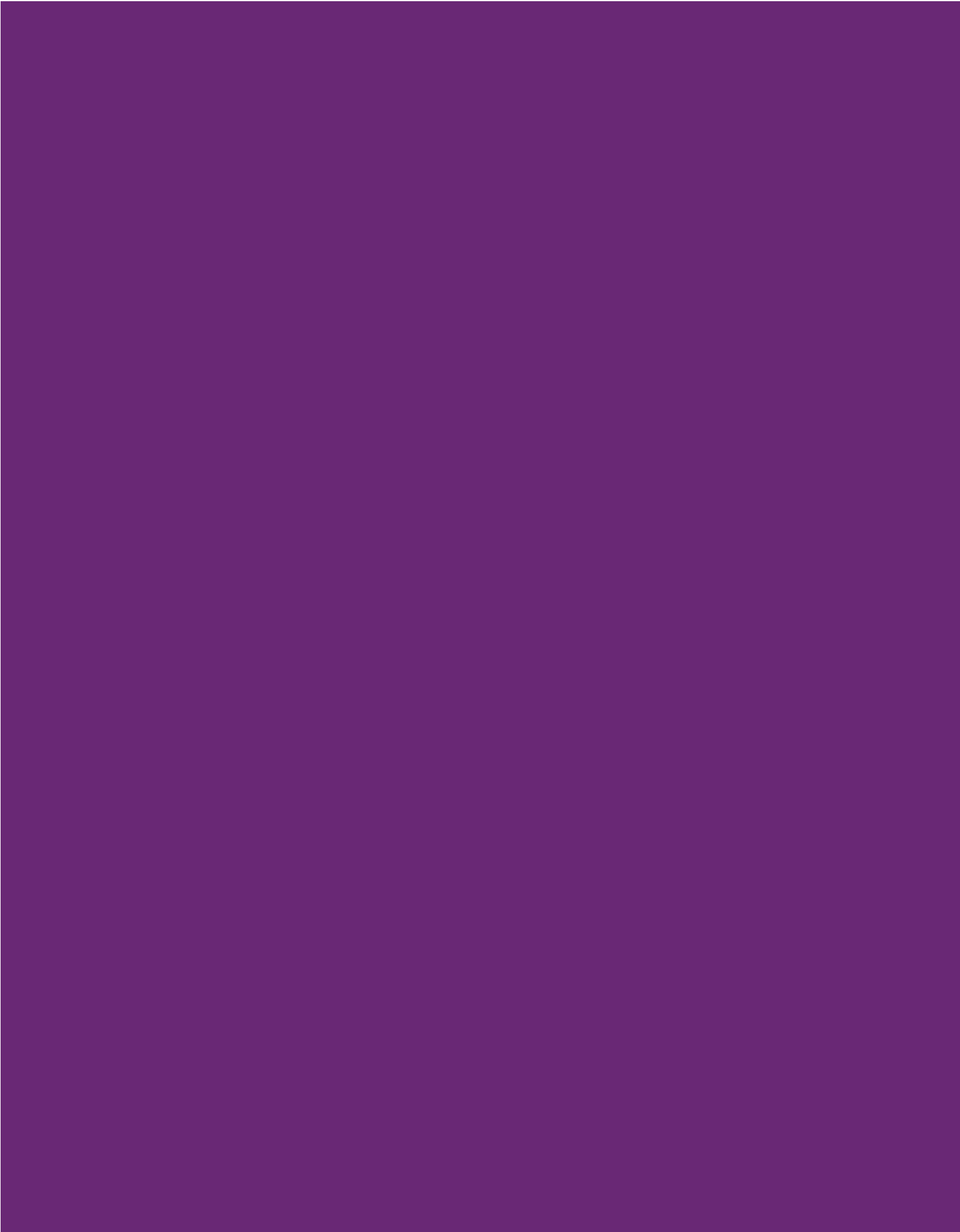
STAFF	NUTRITION ROLES
Senior Nutritionist	<ul style="list-style-type: none"> • Coordinates, reviews, and validates diet prescriptions provided by physician assistants/nurses/senior clinical nutritionist from the different ETU zones, and monitors daily consumption of patients • Support on capacity building of health workers on nutrition • Assess patients' nutrition status • Assess patients' nutrition needs • Support the development of relevant meal plans for Ebola patients • Support in nutrition counselling of patients • Document nutrition information including regimen of patients as needed • Supervision and mentorship
Nutritionist	<ul style="list-style-type: none"> • Supervises and/or conducts patient nutritional assessments (in collaboration with Nurse Aids) • Plans, organizes, and coordinates patient meal and snack distribution and feeding plan • Calculates and plans the number of meals and specialized foods provision (in collaboration with the Catering/Kitchen Supervisor) • Assists with creating and standardizing locally adapted recipes • Responsible for creating weekly menus, including calculating and planning number of meals (in collaboration with catering/kitchen supervisor) • Prepares specialized nutrition products for distribution to patients • Supervises and assists with tray assembly preparation and food distribution • Ensures proper application of the SOP for food brought in by families/friends
Catering officer	<ul style="list-style-type: none"> • Coordinates preparation of food • Coordinates and monitors hygienic preparation and packaging of patient meals according to quantity and consistency required following the approved menu plan (catering or in-house preparation) • Liaises with catering services, food suppliers, etc. to receive food items • Is responsible for stock management of non-specialized food products and non-food items such as utensils, packaging materials, etc. • Supervises and coordinates quality control checks of the in-house kitchen and/or catering service providers • Assists with creating and standardizing locally adapted recipes • Assists with creating weekly menus, including calculating and planning number of meals

***Nutrition team will work closely with the rest of the ETU**

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**World Health
Organization**



**World Food
Programme**



UNHCR
The UN Refugee Agency



unicef
for every child

