

## **FAQ Food Systems 4. How should food be safely transported to and within an Ebola Treatment Unit (ETU)?**

Before reaching a patient, all food and drinks must move from the site of storage or preparation, through the low-risk zone and tray assembly area, into the high-risk zone, and to the bedside. A well-established series of steps must be developed and followed for delivering food and drinks to patients to ensure that it is done safely and in a way that maximizes the palatability of the food.

Meal transportation and distribution must be done carefully and rapidly to avoid the multiple risks of contamination and error associated with serving hot and individualized meals to a large number of patients. Depending on bed occupancy, 1–2 trained staff should be dedicated to organizing food intake (from kitchen or caterer) and distribution at least 3 times daily.<sup>1</sup>

Meal distribution is most efficient and safe when food arrival, assembly and transport into the high-risk zone occur according to a regular fixed schedule.

Food and drink must always be covered or wrapped during transport and must be delivered to patients in individual packaging or disposable containers.

A monitoring and feedback system must be in place, with irregularities recorded and reported to those in charge of the assembly and distribution system.

### **Packaging**

- Meals prepared offsite (catered) may be packaged individually at the site of preparation or arrive in bulk at the ETU.
- Meals, snacks or drinks that are prepared onsite or arrive at the ETU in bulk must be packaged and hygienically wrapped into individual portions at a tray assembly station.
- Containers and other packaging should be used to ensure that hot food remains hot/warm between preparation and delivery to the individual patients (which significantly increases palatability).
- Containers should be strong enough that food does not leak out when a patient eats it from their bed if they are not strong enough to eat at a table.<sup>1</sup>
- All containers with liquid should be sealed tightly to ensure that no liquid leaks during transportation.
- Plastic bags are often a good way to package liquids (water or soup). Use of small plastic bags with (cold) water, that only need piercing, have been reported as contributing favourably to adequate fluid intake.
- While paying attention to the hygiene of the containers used to serve food in, ensure that even weak patients can access and easily eat the food. For example, soup in plastic bags with tight knots may be too difficult to open for a patient with severe weakness.<sup>1</sup> These patients may then need assistance to safely and effectively open these bags at the bedside or wherever they eat.
- The use of individualized clamshell food containers/boxes with 2 to 3 compartments can be convenient for meal packaging.

- To ensure privacy, patient identification numbers or room numbers should be used rather than patient names.
- Meals should be labeled as “liquid”, “semi-solid” or “solid” to facilitate distribution.
- Utensils, if required, can be inserted directly into individual meal packages or left separately at the bedside.
- Snacks and drinks should have packaging that facilitates easy opening and consumption by the patient.
- 1.5 L water bottles should be avoided as they are too heavy for weaker patients; providing 0.5 or 0.75 L bottles is preferable.<sup>1</sup>
- If the ETU allows meals to be provided by family/friends of patients (see FAQ FS5), ensure they have received clear instructions regarding preparation (see FAQ 3) and packaging. Family should provide meals in clean and disposable material, carried in a plastic bag with the name of the patient. Food brought by family should subsequently be wrapped by ETU staff in another clean plastic bag at entry point (adding the room or patient identification number) before being further transported within the ETU to the patient.
- **NOTE:** ETU staff must not accept packages of food with any visible bodily fluids on them and must perform hand hygiene before and after handling any food packages from outside the ETU.

### ***Transport and distribution***

The following should be considered during transportation of food to and within the ETU:

- Cooked food should be consumed within 2 hours of preparation given the high likelihood that it will be in the danger zone (5 to 60°C) during this period.<sup>2</sup> (Note: If the temperature of the food is kept above 60°C during transportation and serving, this period can be extended up to 4 hours; this is however unlikely to be the case in most ETU settings).
  - Cooked food should be transported immediately after preparation and should be 60°C or warmer at the start of transport.
  - If prepared offsite, transport of cooked food from the preparation site to the ETU entrance should take 30 minutes or less.
  - The time between arrival of food in the ETU to serving individual patients should be less than 30 minutes.
- The ETU should have a dedicated entrance for food and drinks.
- Food should never be left on the ground and should always be in the shade. In the ETU, prepared food should be placed on shelves/tables near the tray assembly station.

The following special considerations should be taken when transporting food from low-risk to high-risk zones:

- Food can enter the high-risk zone through a slide system or be carried in. When using a slide, the slope should be steep enough for packaged food to slide down easily with gravity, but not so steep that food and liquid can spill or fall to the ground (see photo). A stick can be used to facilitate movement of food and drinks down the slide.
- Items should NEVER be moved from the high-risk to the low-risk zone, except by infection prevention and control (IPC) teams.<sup>2</sup> Slides or other systems used to move food into the high-risk area should be ONE-WAY only (low-risk → high-risk).
- Items placed in the low-risk → high-risk transfer area or on the slide MUST be taken into the high-risk zone only.
- Ensure that all caretaker staff are informed when food arrives in the high-risk zone to avoid delays in consumption at bedside. If insufficient caretaker staff are onsite, ensure additional support staff are ready (in full personal protective equipment) to distribute meals and provide feeding to patients.<sup>3</sup>



Photo of slides used in an ETU for food provision from low-risk to high-risk zones. (Photo Credit: Mija Ververs)

## References

1. International Committee of the Red Cross (ICRC), Médecins Sans Frontières (MSF OCB/OCG). *Nutritional Protocol for Patients Infected with Ebola Virus Disease*. v 3.; 2016.
2. GOAL. *International Package of Tools and Protocols for Ebola Treatment Units*.; 2014.
3. Save the Children. *ETC Nutrition Protocol - Kerry Town Ebola Treatment Centre*. V2 ed.; 2015.