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The World Health Organization (WHO) Training course on the inpatient management of severe acute malnutrition includes training modules, training guides, and supporting materials. The training package is based on the 2002 WHO Training course on the management of severe malnutrition\(^1\), which was updated in 2009\(^2\) to include the WHO Child Growth Standards, the use of mid-upper arm circumference to assess wasting, and the provision of ready-to-use therapeutic foods (RUTF) for the management of severe acute malnutrition, which enabled early transfer of children from inpatient to outpatient care. In 2013, WHO issued the Guideline: updates on the management of severe acute malnutrition in infants and children\(^3\), which provided updated recommendations on the following:

a. admission and discharge criteria for children aged 6–59 months with severe acute malnutrition;
b. where to manage children with severe acute malnutrition who have bilateral pitting oedema;
c. use of antibiotics in the management of children with severe acute malnutrition in inpatient care;
d. changes in the provision of vitamin A supplementation in the treatment of children with severe acute malnutrition;
e. options for therapeutic feeding approaches in the management of severe acute malnutrition in children aged 6–59 months;
f. fluid management of children with severe acute malnutrition and dehydration with and without shock;
g. management of HIV-infected children with severe acute malnutrition;
h. identifying and managing infants who are less than 6 months old with severe acute malnutrition.

The training course has been updated to incorporate these updates. Table 1 lists the key technical updates made for each module.

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## Table 1. Key technical updates for each module

|----------------------------|-----------|--------------|-------------|
| Admission criteria for inpatient care for children aged 6 months or older | Use of visible severe wasting as a sign of severe acute malnutrition | Visible severe wasting is no longer recommended as a sign of severe acute malnutrition, due to its subjective nature | Admit all severely malnourished children for inpatient care • Severely malnourished children with medical complications or failed appetite test should be admitted for inpatient care (or severely malnourished children who have mitigating circumstances such as disability, social issues, or difficulties with access to care) • Severely malnourished children without these signs or mitigating circumstances should be managed in outpatient care Emphasis on appetite test as an important procedure to decide whether severely malnourished children should be admitted for inpatient or outpatient care | Oedema of both feet • Children with severe acute malnutrition who have severe bilateral oedema (+++ should be admitted for inpatient care, even when they do not present with medical complications and have appetite • Children who have only + or ++ bilateral pitting oedema but present with medical complications or have no appetite, or are wasted, should be admitted for inpatient care • Children aged 6 months or older who have + or ++ bilateral pitting oedema but no medical complications and have appetite should be managed in outpatient care
<table>
<thead>
<tr>
<th>Module</th>
<th>Procedure</th>
<th>2009 version</th>
<th>New version</th>
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<tr>
<td>Module 2: Principles</td>
<td>Criteria for transfer to outpatient care for children aged 6 months or</td>
<td>Transfer to outpatient care when:</td>
<td>medical complications have been treated, and</td>
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<td>of care</td>
<td>older</td>
<td>• medical complications have been treated, and</td>
<td>the child has minimal oedema, and</td>
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<td></td>
<td>• the child is alert, and</td>
<td>the child eats 75% of the proposed daily amount of ready-to-use therapeutic food (RUTF);</td>
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<td>The decision should be determined by assessment of clinical condition and</td>
<td>not anthropometric outcomes</td>
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<td></td>
<td>not anthropometric outcomes</td>
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<td></td>
<td>Criteria for discharge from all care for children aged 6 months or older</td>
<td>Discharge from all care when:</td>
<td>weight-for-height/length Z-score is ≥ −2, and</td>
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<td>• weight-for-height/length Z-score is ≥ −2, and</td>
<td>no oedema for at least 2 weeks, or</td>
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<tr>
<td></td>
<td></td>
<td>• mid-upper arm circumference is ≥ 125 mm, and</td>
<td>no oedema for at least 2 weeks</td>
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<td></td>
<td>The anthropometric indicator used to confirm severe acute malnutrition should</td>
<td>Children admitted with only bilateral pitting oedema +++ should be discharged from treatment based on whichever anthropometric indicator is routinely used in programmes</td>
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<td>also be used to assess whether a child has reached nutritional recovery</td>
<td>Percentage weight gain should not be used as a discharge criterion</td>
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<td>Module</td>
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| **Module 3: Initial management** | Doses of routine antibiotics | • Amoxicillin 25 mg/kg  
• Gentamicin 5 mg/kg  
• Ampicillin 50 mg/kg | The doses of routine antibiotics have been adjusted, for example: amoxicillin 25–40 mg/kg, gentamicin 7.5 mg/kg, to reflect the latest recommendations from the 2013 WHO Pocket book of hospital care for children |
| **Vitamin A** | | Children with severe acute malnutrition should receive the daily recommended nutrient intake of vitamin A (5000 IU) throughout the treatment period. If the children are receiving F-75, F-100 or RUTF that comply with WHO specifications (and therefore already contain sufficient vitamin A), or vitamin A is part of other daily supplements, the children do not require additional vitamin A. Children with severe acute malnutrition should be given a high dose of vitamin A (50 000 IU, 100 000 IU or 200 000 IU, depending on age) on admission, only if they are given therapeutic foods that are not fortified as recommended in WHO specifications and vitamin A is not part of other daily supplements. | |
| | High dose only indicated in corneal ulceration | Give a high dose (50 000 IU, 100 000 IU or 200 000 IU, depending on age) of vitamin A to children with severe acute malnutrition and **eye signs of vitamin A deficiency or recent measles** in inpatient care on Days 1, 2, and 15 (or at discharge to outpatient care), irrespective of the type of therapeutic food they are receiving. | |
| **Atropine** | 1% 3 times a day | The concentration of atropine has been adjusted to 0.1% 3 times a day following discussion with and guidance from several experts as well as the WHO Model List of Essential Medicines. | |
## Transition to RUTF

Two options for transitioning children from F-75 to RUTF are suggested:

- **Option a.** Start feeding by giving RUTF as prescribed for the transition phase. If the child does not take the prescribed amount, then top up the feed with F-75. Increase the amount of RUTF over 2–3 days until the child takes the appropriate amount of RUTF to meet energy needs, or:

  - **Option b.** Give the child the prescribed amount of RUTF for the transition phase. If the child does not take at least half the prescribed amount in the first 12 hours, then stop giving RUTF and give F-75 again. Retry the same approach after another 1–2 days until the child takes the appropriate amount of RUTF to meet energy needs.

### Transition for children with oedema

Children with bilateral pitting oedema should transition to RUTF when appetite returns and oedema is reducing.

### Rehabilitation phase for children on F-100

Children who are taking F-100 and are achieving rapid weight gain during rehabilitation should be changed to RUTF. Ensure that they are finishing up the appropriate amount of RUTF before transferring them for outpatient care.

### Admission criteria for infants aged 0–6 months

- Weight-for-height Z-score < –3, and/or
- Bilateral oedema
- Weight-for-length Z-score < –3, or
- Presence of bilateral pitting oedema, or
- Recent weight loss
- Prolonged failure to gain weight
- Serious breastfeeding difficulties after mother’s counselling

### Feeding for infants aged 0–6 months

- Infants with severe acute malnutrition but no oedema should be given expressed breast milk. Where this is not possible, commercial (generic) infant formula or F-75 or diluted F-100 may be given, either alone or as the supplementary feed together with breast milk.
- Infants with severe acute malnutrition and bilateral pitting oedema should be given F-75 as a supplement to breast milk.

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**Module 4: Feeding**

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<th>Module</th>
<th>Procedure</th>
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<th>New version</th>
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| **Transition to RUTF** | **Option a.** Start feeding by giving RUTF as prescribed for the transition phase. If the child does not take the prescribed amount, then top up the feed with F-75. Increase the amount of RUTF over 2–3 days until the child takes the appropriate amount of RUTF to meet energy needs, or:  
  **Option b.** Give the child the prescribed amount of RUTF for the transition phase. If the child does not take at least half the prescribed amount in the first 12 hours, then stop giving RUTF and give F-75 again. Retry the same approach after another 1–2 days until the child takes the appropriate amount of RUTF to meet energy needs.

| Transition for children with oedema | Children with bilateral pitting oedema should transition to RUTF when appetite returns and oedema is reducing. |
| Rehabilitation phase for children on F-100 | Children who are taking F-100 and are achieving rapid weight gain during rehabilitation should be changed to RUTF. Ensure that they are finishing up the appropriate amount of RUTF before transferring them for outpatient care. |
| Admission criteria for infants aged 0–6 months | Weight-for-height Z-score < –3, and/or  
  Weight-for-length Z-score < –3, or  
  Presence of bilateral pitting oedema, or  
  Recent weight loss  
  Prolonged failure to gain weight  
  Serious breastfeeding difficulties after mother’s counselling |
| Feeding for infants aged 0–6 months | Infants with severe acute malnutrition but no oedema should be given expressed breast milk. Where this is not possible, commercial (generic) infant formula or F-75 or diluted F-100 may be given, either alone or as the supplementary feed together with breast milk.  
  Infants with severe acute malnutrition and bilateral pitting oedema should be given F-75 as a supplement to breast milk. |
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<th>Module</th>
<th>Procedure</th>
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<th>New version</th>
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| Module 4: Feeding | Criteria for transfer to outpatient care for infants aged 0–6 months | Transfer to outpatient care when:  
  • all clinical conditions are resolved, and  
  • the infant has good appetite, is clinically well and alert, and  
  • weight gain is satisfactory, and  
  • the infant has been checked for immunizations, and  
  • the mother or caregiver is linked with community-based follow-up and support | Discharge from all care when the infant:  
  • is breastfeeding effectively or feeding well with replacement feeds, and  
  • has adequate weight gain, and  
  • has a weight-for-length Z-score ≥ –2 |
<p>| Module 5: Daily care | Criteria for discharge from all care for infants aged 0–6 months | Similar updates as those made to modules 3 and 4, where applicable |
| Module 6: Monitoring and problem solving | | No major technical updates. Minor updates, for example where RUTF replaces F-100 |
| Module 7: Involving mothers in care | Criteria for referral to outpatient care for children aged 6 months or older | Similar updates as in module 2 |
| | Criteria for discharge from all care for children aged 6 months or older | Similar updates as in module 2 |</p>
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<th>Module</th>
<th>Procedure</th>
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<tr>
<td>Module 8: Outpatient management of severe</td>
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<td>New module</td>
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<td>acute malnutrition</td>
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<tr>
<td>Supporting materials</td>
<td>Critical care pathways and answers to exercises</td>
<td></td>
<td>All critical care pathways and answers to exercises have been updated to</td>
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<td>reflect the updates in modules</td>
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<td>Organization of supporting materials</td>
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<td>guides concerned</td>
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ACKNOWLEDGEMENTS

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FINANCIAL SUPPORT

WHO gratefully acknowledges the financial support from the French Muskoka Fund and the Bill and Melinda Gates Foundation for the update of the training materials.
<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>CCP</td>
<td>critical care pathway</td>
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<tr>
<td>IV</td>
<td>intravenous</td>
</tr>
<tr>
<td>MUAC</td>
<td>mid-upper arm circumference</td>
</tr>
<tr>
<td>ReSoMal</td>
<td>rehydration solution for malnutrition</td>
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<tr>
<td>RUTF</td>
<td>ready-to-use therapeutic food</td>
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<td>WHO</td>
<td>World Health Organization</td>
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1. PURPOSE OF CLINICAL PRACTICE

Clinical practice is an essential part of the Training course on the inpatient management of severe acute malnutrition. Clinical sessions are led by the clinical instructor in the severe acute malnutrition ward each day of the course. The purpose of the clinical sessions is for participants to see and practise management of severely malnourished children who have medical complications, following procedures described in the WHO Guideline\(^1\) and the present training course.\(^2\)

Participants learn about the procedures for management of severely malnourished children who have medical complications by reading information in the modules or seeing demonstrations on video. They then apply this information in written exercises or case studies. Finally and most importantly, in clinical sessions participants see the procedures carried out and practise some procedures in the ward with severely malnourished children.

General objectives

During clinical practice sessions, participants will:

- see and practise identifying clinical signs of severe acute malnutrition and medical complications in real children;
- observe and practise procedures for management of severely malnourished children who have medical complications;
- practise handling children gently and using a supportive and friendly manner with mothers;
- receive feedback about how well they have performed and guidance to help strengthen skills;
- gain experience and confidence in the procedures taught in the training course.

Clinical sessions are organized to give participants an opportunity to observe and practise skills in the order they are being learned in the modules. Each clinical session focuses on some new skills and reinforces the skills participants have learned about in previous modules. If any participant has difficulty with a particular skill, the clinical instructor gives the participant additional guidance. The purpose is to help every participant develop skills and confidence.

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\(^2\) If the hospital where the course is conducted does not manage severely malnourished children according to WHO guidelines, it is imperative that procedures be made as consistent as possible prior to the training course. If the discrepancies are significant, the effectiveness of the training will be seriously compromised, as the participants will see something different to what they are reading. If a facility wants to upgrade its procedures to be consistent with those in the WHO Guideline, this may require training of staff, changing ward procedures, and obtaining additional supplies; the facility may request technical assistance from WHO well in advance of a training course. If there are only a few discrepancies between current practices and the WHO guidelines, the clinical instructor should be prepared to support the WHO guidelines and explain the practice in the training site. Local adaptation of some procedures is reasonable; the clinical instructor or course director should be prepared to explain how and why the current practice is consistent (or not consistent) with WHO guidelines.
2. **OBJECTIVES OF CLINICAL PRACTICE SESSIONS**

Each clinical session has specific objectives for observation and practice. These objectives are based on the expected progress of the participants working through the modules in their small groups, with the guidance of the group facilitators. It is important that participants have read about the procedures (and done some related exercises) before the clinical session that focuses on them. The course schedule was designed with this in mind.

**Day 1: tour of ward(s)**

- Observe the admissions area.
- Observe the emergency treatment area.
- Observe how the severe acute malnutrition ward or area is organized.
- Observe the kitchen area.
- Observe any special areas for play, health education, or other activities.

**Day 2: clinical signs**

- Observe children and look for clinical signs of severe acute malnutrition.
- Weigh and measure children.
- Look up weight-for-height Z-scores.
- Measure mid-upper arm circumference.
- Identify children who are severely malnourished.

**Day 3: initial management**

- Observe initial management of severely malnourished children who have medical complications.
- Identify clinical signs of severe acute malnutrition, hypoglycaemia, hypothermia, shock, and dehydration.
- Practise using dextrostix.
- Practise filling a critical care pathway (CCP) during initial management.
- Assist in doing initial management, if feasible, such as:
  - take rectal temperature
  - give bolus of glucose for hypoglycaemia
  - warm the child
  - give first feed
  - assess need for eye care.

**Day 4: flexible half day, optional clinical practice**

- Any of the preceding activities may be repeated for extra practice. If the case management in the hospital is good, participants may be assigned to “shadow” and assist a caregiver in the hospital for part of the day. This day may also be a good opportunity to observe a teaching session with mothers or a play session.
**Day 5: initial management and feeding**

- Observe and assist in doing initial management, if feasible, including:
  - identify signs of possible dehydration in a severely malnourished child
  - measure and give rehydration solution for malnutrition (ReSoMal)
  - monitor a child on ReSoMal
  - determine antibiotics and dosages.
- Observe nutrition staff and nurses measuring and giving feeds.
- Practise measuring, giving, and recording feeds.

**Day 6: feeding**

- Review 24-hour food intake charts and plan feeds for the next day.
- Determine if child is ready for ready-to-use therapeutic food (RUTF)/F-100.
- Continue to practise measuring, giving, and recording feeds.

**Day 7: daily care**

- Keep CCPs on children observed and cared for.
- Participate in daily care tasks, as feasible:
  - measure respiratory rate, pulse rate and temperature
  - administer eye drops, antibiotics
  - change eye bandages
  - weigh child and record weight (on daily care page and on weight chart of CCP)
- Observe and assist with bathing children (depending on schedule).
- Assist with feeding (continued practice).
- Monitor ward using checklist. Provide feedback on the good practices as well as on the areas that need improvement in the ward.

**Additional objectives**

- Observe teaching session with mothers.
- Observe play session.
3. **ROLE OF THE CLINICAL INSTRUCTOR**

There is one clinical instructor who leads all the clinical practice sessions. The clinical instructor leads a session each day for a small group of participants (for example, three daily sessions with up to six participants each).

Teaching a small number of participants in the ward at a time allows each person to have hands-on practice. The clinical instructor is able to watch carefully and give feedback to observe individual improvement.

Experience has shown that this clinical teaching can best be done by someone who is present in the ward through the day, rather than by different facilitators coming in for an hour or two. The clinical instructor becomes familiar with the children and staff procedures and is comfortable moving around the ward. As the clinical instructor repeats the same teaching for each group during the day, he or she usually becomes very smooth and effective. The mothers and staff are also more comfortable seeing the same clinical instructor with different groups of participants.\(^3\)

Each morning, to prepare for the day, the clinical instructor reviews the teaching objectives for the day and plans how to accomplish them. For example, on the day when participants are to practise identifying clinical signs of severe acute malnutrition, the clinical instructor may locate several children in the ward who clearly demonstrate the signs. The clinical instructor plans how to show the signs on one or two children and then ask participants to point out signs on the other children. On a day when participants are learning about the stabilization phase, the clinical instructor may select several children in the ward who are in that phase and prepare for the participants to see their 24-hour food intake charts, assess progress, and plan feeding for the next day. The clinical instructor may prepare a list of questions to ask or prepare tasks for participants to do with these children.

The clinical instructor needs to be skilled at anticipating what will occur on the ward and planning how the groups of participants can accomplish their objectives. If the clinical instructor finds that the schedule planned for clinical sessions will not work that day, an alternative must be planned and the schedule adjusted.

General procedures and specific guidelines for teaching each clinical practice session are provided later in this guide.

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\(^3\) The group’s facilitators should attend and assist as the clinical instructor requests, but they are not in charge of teaching the group while in the ward.
4. QUALIFICATIONS AND PREPARATION OF THE CLINICAL INSTRUCTOR

The clinical instructor should have as many of the following qualifications as possible.

1. The clinical instructor should be currently active in clinical care of children. If possible, they should have a current position on the severe acute malnutrition ward of the facility where the training is being conducted. (If the clinical instructor is not on the staff of the facility, a staff assistant will be needed to help with arrangements and perhaps with translation.)

2. The clinical instructor should have proven clinical teaching skills.

3. The clinical instructor should be familiar with the WHO guidelines relevant to the management of children with severe acute malnutrition and have experience using them. It is best if the clinical instructor has participated in the training course on the inpatient management of severe acute malnutrition previously, as a participant or facilitator.

4. The clinical instructor should be clinically confident in order to sort through a ward of children quickly, identify clinical signs that participants need to observe, and determine the progress of different children. The clinical instructor should understand the daily procedures in the ward and quickly see where participants may assist with care, and should understand each child’s clinical diagnosis and prognosis so that the care of critically ill children is not compromised. The clinical instructor should also be comfortable handling severely malnourished children and convey a gentle, positive, hands-on approach.

5. The clinical instructor must have good organizational ability. It is necessary to be efficient to accomplish all of the tasks in each clinical session. The individual must be able to stay on the subject, avoiding any extraneous instruction or discussion; maintain a view of the ward and all the participants; and keep all participants involved and learning productively. Teaching three groups of participants requires 4.5 to 6 hours, and these are very active periods. The clinical instructor must be energetic.

6. The clinical instructor must be outgoing and able to communicate with ward staff, participants, and mothers, and should be a good role model in talking with mothers. (A translator may be provided if needed.)

7. If possible, in preparation for this role, the clinical instructor should work as an assistant to an experienced clinical instructor at another course to see how to select cases, organize the clinical sessions and interact with participants. Or, another experienced clinical instructor could join the course instructor during the first few days of the facilitator training or the course.

8. The clinical instructor must be available 1–2 days prior to facilitator training, during all of facilitator training, and during all of the course. The clinical instructor must be willing and motivated to get up early each morning to review cases in the severe acute malnutrition ward and prepare for the day’s clinical sessions.

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5. BEFORE THE FACILITATOR TRAINING AND COURSE BEGIN

1. With the course director, meet with the director of the severe acute malnutrition ward. Explain to the ward director how clinical practice sessions work. Describe what the clinical instructor and the participants would do. Ask permission to conduct sessions in the ward.
If there are separate areas or wards where some severely malnourished children are kept, first meet with the hospital director to obtain permission, and then meet with the director responsible for each of these wards.
Meet with staff in the ward (or in each ward) to inform them about the course and to ask for their help. Make sure your arrangements include the senior responsible nurse and other members of the team, not just the doctor in charge.
If necessary, ask the ward director for a clinical assistant, preferably someone who works on the ward full time. Ask the director to assign the clinical assistant to come at the time of the early morning preparations (usually at 06:00 or 07:00, depending on the schedule). Ask for a translator to help, if needed. (It will often be necessary to provide a stipend to this individual.)

2. If you are not familiar with the ward, visit it. See how the ward is laid out, the schedule of admissions, bathing and weighing, feeds, nursing rounds, teaching sessions for mothers, and other activities. Find out times patients are available or not available.

3. Meet with the course director and ward director to set the schedule for clinical sessions, so that each group will have a clinical practice session each day. Plan for three groups of up to six participants each. Remember a session of 1–2 hours is required for each group each day. If there are more participants attending the course, you will need to schedule accordingly (see the next section on scheduling clinical practice sessions for more guidance on scheduling).
When the schedule is written, ensure that copies are made for each facilitator and participant.

4. Study this guide to learn what you should do to prepare for and conduct clinical practice sessions. Visit the ward to plan how and where you can carry out your tasks.

5. Obtain necessary supplies for instruction. All participants, facilitators, clinical instructor and assistant should have a copy of the following:
- objectives for clinical sessions (listed in Module 1)
- weight-for-height reference card
- F-75 reference card
- F-100 reference card
- antibiotics reference card
- RUTF reference table.

These are provided to participants and facilitators with the course materials

For these clinical practices, you will need a supply of:
- CCPs (100 copies of the initial management page plus 60 complete CCPs for a course with 15–20 participants);
- 24-hour food intake charts (100 copies for a course with 15–20 participants);
- pens and pencils.
You will also need:
- six to eight clipboards, and string or tape to fasten clipboards to foot or head of bed;
- thermometers;
- a few watches (or participants may all have their own);
- scales and length board, stadiometer for measuring infants and children (several scales and length boards will be needed if possible, since each participant will weigh and measure a number of children). Ensure the weighing scales can measure to the nearest 10 g.
And for Day 3:
- dextrostix, gloves for every participant.
To ensure good handwashing, participants need access to:
- running water;
- paper or cloth towels;
- soap for handwashing;
- lab coats, aprons, or towels to protect clothes when handling children.
(These should not be shared by participants; each should have their own.)
6. Check that all clinical supplies for care of children in a severe acute malnutrition ward are available (for example, equipment and supplies for the ward, pharmacy, and kitchen, and drugs). Supplement ward supplies if necessary. You should ensure that participants observe management of children according to WHO guidelines (see Annex 1 for a complete list of equipment and supplies).
7. Meet with the course director to review your responsibilities and your plans for conducting the clinical sessions.
8. With the course director, plan how you will organize a clinical practice session during the facilitator training. This will give you practice and will familiarize the facilitators with how clinical sessions work. Select one session to practise during facilitator training, just as written. Alternatively, you could select and practise some key activities from different sessions, such as:
- identifying clinical signs of severe acute malnutrition (as done on Day 2);
- observing and helping with initial management (as done on Days 3 and 5);
- practise measuring and giving feeds (as done on Days 5 and 6).
9. Brief any staff that will be in the ward about what you will be doing, and the training sessions that will take place there.
10. During the facilitator training, give each facilitator a copy of the schedule for clinical sessions and explain how the clinical sessions will work (see suggested explanation in Day 1 notes, in section 8 below). Practise this explanation first as if you are speaking to a group of participants. Then discuss the sessions from the facilitator’s point of view.
11. Practise conducting a clinical session with facilitators in the role of participants. When the session is over, ask for feedback from the facilitators. This practice should help you to obtain experience and work out any problems before the actual course begins.
12. Before the course begins, study the tally sheets for clinical sessions in Annex 2 and plan how you will use them. Make a copy to write on.
6. SCHEDULING CLINICAL PRACTICE SESSIONS

It can be a challenge to schedule clinical practice sessions in a way that allows all groups to accomplish the daily objectives. Study the objectives for each day and think about when the ward’s routine will accommodate them. Plan to rotate the three groups through the schedule, so that each group experiences the ward at different times in the daily schedule, and no group sees the ward at the same time every day.

Though it would be easiest for the participants and facilitators if the schedule is the same, or nearly the same, each day, it is necessary to vary it somewhat. It is critical to provide everyone with a copy of the schedule to avoid confusion and tardy groups.

Day 1 objectives (tour of ward) can be achieved at any time after the first 2 hours of the opening day – in other words, after the groups have had time to read Module 1, the course introduction.

Day 2 objectives (clinical signs) can be achieved at any time when participants can observe children and their clinical signs in the ward, and when there are children waiting to be seen in the outpatient or inpatient queue. Participants should have finished Module 2, on principles of care, before this session.

Day 3 objectives (initial management) can be achieved when the staff are carrying out initial management procedures for new patients. The clinical sessions on this day should be scheduled at times when there are usually new admissions.

Day 4 is a flexible half day during which you may or may not schedule clinical practice. It may be a good day to achieve the additional objectives of observing a teaching session or play session. If so, schedule accordingly.

Day 5 objectives (initial management and feeding) include participants again assisting with initial management. The clinical practice sessions on this day should be scheduled at times when there are likely to be new admissions. Participants may also observe and help with feeding. Therefore, each session should include a scheduled feeding time.

Day 6 objectives (feeding) include more practice measuring and giving feeds. Each session should include a scheduled feeding time.

Day 7 objectives (daily care) include daily care tasks, such as weighing children, measuring respiratory rate, pulse and temperature, giving antibiotics and bathing. Determine at what times the regular staff usually perform these tasks and whether the three clinical sessions can be scheduled to correspond to these times. It is possible that some groups will not be able to practise all of the daily care tasks.
Additional objectives include observing a teaching session with the mothers and observing a play session.

These teaching and play sessions may be observed during already-scheduled clinical sessions or may need to be scheduled in addition. Determine when staff will conduct these sessions and schedule each small group to observe at one of those times. If necessary, you may just call each small group out of the classroom to observe a brief teaching session. Although participants do not read in the modules about these activities until later in the course, it is acceptable to have them observe at any time. In the example schedule that follows, all three groups will observe a play session at the same time on Day 4. This was possible because the play area has plenty of space for observers.

Scheduling may need to be creative in order to meet all the objectives. A clinical session may need to be scheduled quite early or late on some days in order for each group to participate in a feeding time. You may use a grid similar to the one below to plan clinical sessions. The times shown are just an example. A blank chart for scheduling clinical sessions is provided in Annex 3.

Example of schedule for clinical session

<table>
<thead>
<tr>
<th>Clinical session</th>
<th>Duration</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1: tour of ward</td>
<td>1 hour</td>
<td>11:00–12:00</td>
<td>13:00–14:00</td>
<td>14:15–15:15</td>
</tr>
<tr>
<td>Day 2: clinical signs</td>
<td>1.5 hours</td>
<td>09:00–10:30</td>
<td>10:45–12:15</td>
<td>13:30–15:00</td>
</tr>
<tr>
<td>Day 3: initial management</td>
<td>1.5 hours</td>
<td>13:30–15:00</td>
<td>09:00–10:30</td>
<td>10:45–12:15</td>
</tr>
<tr>
<td>Day 4: flexible half day, optional clinical practice</td>
<td></td>
<td>All groups will observe play session at 10:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 5: initial management and feeding</td>
<td>2 hours</td>
<td>10:45–12:45 (11:00 feed)</td>
<td>13:30–15:30 (15:00 feed)</td>
<td>08:30–10:30 (09:00 feed)</td>
</tr>
<tr>
<td>Day 6: feeding</td>
<td>1.5 hours</td>
<td>08:30–10:00 (09:00 feed)</td>
<td>10:15–11:45 (11:00 feed)</td>
<td>12:45–14:15 (13:00 feed)</td>
</tr>
<tr>
<td>Day 7: daily care</td>
<td>1.5 hours</td>
<td>13:00–14:30</td>
<td>9:00–10:30</td>
<td>10:45–12:15</td>
</tr>
<tr>
<td>Observe teaching session for mothers (same time daily)</td>
<td>0.5 hour</td>
<td>Day 7 at 14:00</td>
<td>Day 5 at 14:00</td>
<td>Day 6 at 14:00</td>
</tr>
<tr>
<td>Observe play session (same time daily)</td>
<td>1 hour</td>
<td>Day 4 at 10:00</td>
<td>Day 4 at 10:00</td>
<td>Day 4 at 10:00</td>
</tr>
</tbody>
</table>
7. **GENERAL PROCEDURES FOR PLANNING AND CONDUCTING CLINICAL SESSIONS**

1. Each day, review the objectives for the next day and plan how to accomplish them with the groups in the time allowed. Participants will practice some tasks (such as feeding children) by assisting the staff doing patient care on their regular schedule. Some tasks will need to be organized specially, by assigning participants to work with selected children who have certain characteristics. If the schedule requires adjustment in order to accomplish the session objectives, inform the course director and the group facilitators. If any special supplies are needed, be sure they will be available. Prepare or make copies of any forms needed, such as CCP pages or 24-hour food intake charts.

2. Each morning, review the children in the ward and select appropriate children to be managed by participants during the day’s sessions. This must be done in the morning as the clinical condition of hospitalized children can change overnight. Identify children appropriate for the objectives for that day. For example, on some days you will need children who exhibit certain clinical signs. On other days, you will need a number of new admissions. Try to select at least one patient per participant. It is desirable to have a separate patient for each participant to work with during the session. Always be alert for additional children with infrequently seen signs. Because some signs may be rarely seen in this hospital, show them to participants whenever there is an opportunity. These signs may include:
   - severe dermatosis (+++)
   - severe oedema (+++)
   - signs of dehydration
   - signs of shock (cold hand with slow capillary refill > 3 seconds, weak/fast pulse)
   - corneal ulceration, Bitot’s spots.

3. Keep a list with brief notes on each of the selected cases for your own reference during the day. Note the child’s name, age, location in the ward if necessary, and relevant signs. However, keep in mind that clinical signs can change rapidly in very ill children from one session to the next. Mark the beds of the children that you plan to show to participants, for example by posting a sign at the foot of the bed. This will help you locate these children easily.

4. Brief the ward staff on what the participants will do today. If participants will assist the regular staff with certain procedures, be sure that the staff know this and are willing. Remind the staff that they are setting the example, and that they should be ready to explain what they are doing and answer participants’ questions, if possible.

5. Before each session, remind participants to wash their hands carefully. Ask them to be sure to wash them again between patients and at the end of the session. This is for their own protection as well as the children’s.
6. At the beginning of each session, tell the participants the objectives for the session today. Demonstrate any new clinical procedure that they have not seen (such as giving ReSoMal, measuring height) before you ask them to do it.

7. Depending on the objectives for the session, assign each participant to a child to assess or care for, or to a staff member to work with. In some instances, you may assign a pair of participants to work together with a child. Be sure that participants have any forms or supplies needed.

8. Observe while participants carry out the assigned tasks. Watch for any participant who does not understand what to do. No participant should be standing around, chatting with other participants or staff. All the time during clinical sessions should be used productively. If a participant has completed a task and does not have another assignment, they can move to observe another participant or staff member at work.

9. Make sure that course work is not interfering too much with the ward routine, especially provision of treatment. Inform families about the course. For potentially disturbing tasks such as weighing, avoid handling the same children repeatedly during the day.

10. Give feedback to participants individually and in “rounds”, in which participants gather by a child’s bed for a report on what another participant has seen or done. Ask questions to encourage the participant to elaborate as needed. Refer to the child’s clinical signs, or chart, or feeding record, or other indicators. Keep these discussions brief and avoid making participants feel uncomfortable or intimidated. When you ask a participant about what they have done for a child and why, keep the tone positive. If a participant has overlooked something, you or another participant can suggest what could have been done better. Emphasize that the participants are all here to learn.

11. At the end of the session, gather the participants all together and summarize the session. Mention the important signs and procedures covered in the session and refer to common problems that participants encountered (for example, difficulties counting respiratory rate, errors recording initial treatment or intake). Reinforce participants for doing tasks correctly, and give them suggestions and encouragement to help them improve.

12. Record (tick) on the tally sheet (Annex 2) the objectives accomplished by the group during the clinical session. Make notes on any problems.

13. Repeat steps 5–12 with each small group.

14. Participate in the daily facilitators’ meeting. Report to the facilitators and the course director on the performance of each group at the clinical session that day and whether the objectives were achieved. Discuss whether participants were able to perform procedures correctly with patients. If certain tasks or concepts were difficult for participants, ask facilitators to review them in the classroom the next day. Identify any procedures that you were unable to demonstrate or the participants could not practise. Discuss plans to try again in the next day’s session. Also inform the facilitators about the next day’s clinical practice sessions. Review any important points about the schedule, the objectives, help that you need, or other matters. Remind the facilitators of anything that participants should bring to the sessions, such as their reference cards.
8. **Specific Instructions for Each Day’s Clinical Session**

On the following pages are specific instructions for each day’s clinical session. Guidelines for each day include how to prepare for the session, the participants’ objectives, the clinical instructor’s procedures, and what to do to conclude the session.

For some days, there are additional notes about preparing for or conducting that particular session.

When preparing for the first day or two, you may also find it helpful to refer to the general procedures just described. After you are familiar with the general procedures, simply refer to the appropriate summary for each day.

**Day 1: Tour of Ward(s)**

<table>
<thead>
<tr>
<th>To prepare</th>
<th>Participant objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review these guidelines for Day 1.</td>
<td>• Observe the admissions area.</td>
</tr>
<tr>
<td>Prepare to take each group for a tour of the ward and all areas where</td>
<td>• Observe the emergency treatment area.</td>
</tr>
<tr>
<td>severely malnourished children are seen and treated. Identify areas</td>
<td>• Observe how the severe acute malnutrition ward or area is organized.</td>
</tr>
<tr>
<td>where you will show and prepare your comments. If possible, obtain data</td>
<td>• Observe the kitchen area.</td>
</tr>
<tr>
<td>on the number of severely malnourished children seen each month or each</td>
<td>• Observe any special areas for play, health education, or other activities.</td>
</tr>
<tr>
<td>year, and how long these children typically stay in the hospital.</td>
<td></td>
</tr>
<tr>
<td>Plan to tour the ward, the emergency treatment area, admissions area,</td>
<td></td>
</tr>
<tr>
<td>kitchen area, and any special areas used for play, health education,</td>
<td></td>
</tr>
<tr>
<td>or other activities.</td>
<td></td>
</tr>
<tr>
<td>If possible, find one child on the ward who has made a good recovery</td>
<td></td>
</tr>
<tr>
<td>(a “success story”) and prepare to describe the child’s condition on</td>
<td></td>
</tr>
<tr>
<td>admission and how the child has improved, emphasizing the successes.</td>
<td></td>
</tr>
<tr>
<td>Clinical instructor procedures</td>
<td>1. Introduce yourself.</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td>2. Explain to participants how clinical sessions will generally work (see note A below). Explain that today the group will not work with patients but will tour the ward and other areas where severely malnourished children are seen or treated.</td>
</tr>
<tr>
<td></td>
<td>3. Explain hygiene procedures to be followed. Participants should wash hands with soap before and after each session and between patients. Explain where handwashing facilities are located. (Even though participants will not be asked to handle patients today, they should wash anyway in case they touch the children.)</td>
</tr>
<tr>
<td></td>
<td>4. Take participants to the admissions area and explain how children are admitted due to severe acute malnutrition.</td>
</tr>
<tr>
<td></td>
<td>5. Visit the emergency treatment area and explain what treatments are given here.</td>
</tr>
<tr>
<td></td>
<td>6. Take participants for a tour of the ward, pointing out areas that participants will learn about during the course, including beds, areas for weighing and bathing, play area, and education area.</td>
</tr>
<tr>
<td></td>
<td>7. If possible, while touring the ward, show a “success story”, a child who was admitted in serious condition but is now ready for transfer to outpatient care.</td>
</tr>
<tr>
<td></td>
<td>8. Visit the kitchen or area where food is prepared. Point out food scales, ingredients used, and other features.</td>
</tr>
<tr>
<td>At end of the session</td>
<td>• Answer any questions that participants may have.</td>
</tr>
</tbody>
</table>

**Note A. Explanation to participants of how clinical sessions will work**

You may wish to use the following explanation.

The purpose of clinical sessions is to give you opportunities to see and practise procedures for management of severe acute malnutrition. The severe acute malnutrition ward may not be like the setting where you usually work. However, seeing and working in the ward will help you understand the procedures and what is needed to carry them out. Then you will have ideas on putting the recommended procedures into practice at your hospital.

You will learn from both what you see and what you do in the clinical practice sessions. You will observe while the staff perform some procedures, for example, giving initial treatment to a critically ill child. You may assist the staff and participate in some procedures, such as monitoring a child on ReSoMal. You will be assigned some tasks to perform on your own, such as feeding children and recording amounts taken. Sometimes you will work in pairs, particularly if there are not many patients. I [the clinical instructor] will assign you to tasks and patients, and will watch and give guidance and feedback on your work. I may ask you to show the other participants your case. You should not feel shy. We are all learning.

Your interactions with a child and his or her mother should always be gentle and patient. Severely malnourished children must be handled very gently and kindly.
Interactions with the mothers of the patients should be encouraging and supportive. When you speak to a mother here, you should be kind to her and listen carefully. If a child suddenly becomes much sicker, be sure to alert me or the ward staff.

**Day 2: clinical signs**

<table>
<thead>
<tr>
<th><strong>To prepare</strong></th>
<th>Review the general procedures (section 7 above) and these guidelines for Day 2.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arrange for participants to weigh and measure children. Ensure that scales are working and stadiometer or measuring boards are set up correctly.</td>
</tr>
<tr>
<td></td>
<td>Select one or two children with a variety of clinical signs to show to participants. Try to find clear examples of signs (see note A below for a list of the signs to show today).</td>
</tr>
<tr>
<td></td>
<td>Look for children in the admissions area or ward who could be assessed for clinical signs of severe acute malnutrition, weighed, and measured. For each group, you will need one or two children per participant. It is best if the same children are not used repeatedly during the day. For the sake of comparison, include a few children who are not severely malnourished.</td>
</tr>
<tr>
<td></td>
<td>Ask facilitators to have their participants bring their weight-for-height reference cards and a pen or pencil to the clinical session.</td>
</tr>
</tbody>
</table>

| **Participant objectives** | • Observe children with clinical signs of severe acute malnutrition. |
|                          | • Weigh and measure children. |
|                          | • Look up weight-for-height Z-scores. |
|                          | • Measure mid-upper arm circumference. |
|                          | • Identify children who are severely malnourished. |
1. Review the objectives for today’s clinical session.

2. Show one or two children with various clinical signs, which may include oedema, dermatosis, or eye signs (see note A below). Point out these signs to participants.

3. Using these same children (unless they are too sick), demonstrate how to measure weight, height or length, and mid-upper arm circumference (MUAC). Follow guidelines in Module 2, on principles of care. Demonstrate measuring both standing height and supine length.

4. Ask participants to look up the weight-for-height Z-score of these children and determine if they meet the criteria for admission.

5. Assign each participant to assess one or two children in the admissions area or ward. Include some children who are not severely malnourished. Ask participants to assess each child for clinical signs of severe acute malnutrition, weigh the child, and measure the child. Ask them then to determine if the child is severely malnourished and whether the child requires inpatient care or outpatient care.

6. Watch as participants examine each child for clinical signs such as oedema and dermatosis. Ask the facilitators to assist participants as they weigh and measure children, since a partner is needed for these tasks.

7. When a participant has finished assessing a child, ask the participant what they have found. Look at the child again together, agreeing with the findings or asking to look again if any sign was missing.

8. Towards the end of the session, conduct rounds (see note B below). Ask each participant to present one of the cases assessed for the benefit of the other participants. Select cases that are most interesting and have a variety of clinical signs among them. The participant should point out the clinical signs; state the child’s weight, height, Z-score and MUAC; and explain whether the child requires inpatient care or outpatient care. Ask the participant questions as needed to draw out a complete explanation.

At end of the session

- Summarize the session with participants.
- Answer any questions.

Note A. Clinical signs to demonstrate on Day 2

Try to locate and show as many clear examples of the signs as possible. Avoid discussion of additional clinical signs so that the participants can focus primarily on the signs taught in the course and become skilled at recognizing them. Not all signs will be present in the ward every day. Whenever a child is admitted with an infrequently seen sign, be sure to show it to the participants, even if it is not listed in the objectives for that day.
Signs to teach on Day 2

Oedema

+ Mild Oedema of both feet
++ Moderate Oedema of both feet, plus lower legs, hands, or lower arms
+++ Severe Generalized oedema including both feet, legs, hands, arms and face

Dermatosis

+ Mild Discoloration or a few rough patches of skin
++ Moderate Multiple patches on arms or legs
+++ Severe Flaking skin, raw skin, fissures (openings in the skin)

Eye signs

Bitot’s spots
Pus and inflammation (redness)
Corneal clouding
Corneal ulceration.

All of the above signs are explained in Module 2, on principles of care, and photographs are provided in Web Annex B of the Facilitator’s guide.

It is helpful to show children with different degrees of severity of oedema and dermatosis. Look for as many children as possible with these signs and with different degrees of severity. Showing several children side by side who have, for example, no, mild (+), moderate (++) and severe (+++) oedema can be very helpful.

It is important that participants avoid overcalling signs. Participants need to become confident in saying a sign is not there, not just in recognizing the abnormal signs.

Note B. Individual practice identifying clinical signs, followed by rounds to give feedback

The technique of “rounds” will be used frequently in clinical practice sessions. On different days, participants may be asked to assess patients for certain signs, record information on various forms, or decide on appropriate feeding plans or treatments. The general process is to have each participant do some individual (but supervised) practice with a patient and then present the case or decisions to the group.

On Day 2, participants will be assigned to assess patients for certain clinical signs (oedema, dermatosis, and eye signs), and also to weigh and measure the child and determine whether the child requires inpatient care or outpatient care. Assign each participant to a different patient (or if necessary, participants may pair up). Select patients with signs that should be learned or reinforced in the session. Also select a few patients without these signs. Thus, by the end of the session, participants see children with and without the signs, so the distinction is clear.
Ask participants to go to the assigned patient, check that patient, and record findings. The participants should all check their patients and then signal to you when they have finished. Then conduct rounds as follows.

- Gather the participants and take the group to the bed of the first case. Ask the assigned participant to describe the signs found, the weight and height, the Z-score and the MUAC.
- Ask questions to encourage the participant to elaborate as needed. For example, if oedema is present, you may need to ask, “What degree of oedema?” If necessary, give participants a chance to examine for the sign, for example, to stand near the child to check for oedema by pressing the foot.
- Ask whether the child requires inpatient care or outpatient care. If necessary, ask participants to write their individual decisions on slips of paper and hand or show them to you, so you are sure they are giving their own decisions, not influenced by others or fear of embarrassment. These problems will vary by group. Be aware that some people are quite shy and do not like to have a joke made if they have made an error. With slips of paper, it is possible to talk about agreement of the group without singling out the wrong answer of any one participant. You will know which participants are assessing correctly and which need more practice.
- If some participants did not identify a sign correctly, demonstrate or let participants try again. Find out why they decided differently – where they were looking, the definition they were using, or other relevant factors. Treat their opinions with respect. “Let’s look again.”
- Make sure the atmosphere is supportive, so participants do not feel bad if they miss a sign. You may say, “It takes a while to learn these signs. Do not feel bad if you make a mistake – we all will.” Give encouragement and thank the participant who presented the case.

The above procedures should be adapted for rounds on other days to be suitable for the tasks being practised.
### Day 3: initial management

<table>
<thead>
<tr>
<th>To prepare</th>
<th>Participant objectives</th>
<th>Clinical instructor procedures</th>
</tr>
</thead>
</table>
| Arrange a place for participants to practise testing blood samples using dextrostix. Plan how the blood will be obtained. Gather a supply of gloves, dextrostix, and supplies for obtaining blood samples.  
  Obtain a supply of initial management pages of the CCP (two or three copies per participant).  
  In the morning and throughout the day, look for newly admitted patients who are severely malnourished.  
  Brief the staff who do initial management of severely malnourished children about the objectives and plans for the clinical session. Get their ideas and cooperation for participants to observe and, if feasible, participate in giving care.  
  Ask facilitators to remind participants to bring their weight-for-height reference card, F-75 reference card, and a pen or pencil to the session. | • Observe initial management of severely malnourished children.  
• Identify clinical signs of severe acute malnutrition, hypoglycaemia, hypothermia, shock, and dehydration.  
• Practise using dextrostix.  
• Practise filling a critical care pathway (CCP) during initial management.  
• Assist in doing initial management, if feasible, such as:  
  - take rectal temperature  
  - give bolus of glucose for hypoglycaemia  
  - warm child  
  - give first feed  
  - assess need for eye care. | 1. Review with the participants the objectives of this session.  
2. As severely malnourished patients are admitted, place participants so that they may closely observe initial management without getting in the way. Describe to them what is being done. Brief them on any emergency care that has already occurred. If there are several patients, spread out the participants so that they can be more involved.  
3. Ask participants to complete the initial management page of a CCP as the case is managed. Provide any needed information about the child that participants cannot directly observe.  
4. Keep the focus on initial management, but point out certain things whenever they are observed (for example, a child with dermatosis, oedema of both feet, or corneal ulceration).  
5. Teach the additional clinical signs listed (see note A below) by pointing them out, asking participants questions about the signs, and asking participants to identify the signs in new patients. |
6. During a slow moment or when there is no new case, ask participants to examine dextrostix (or brand used at the hospital) and read the package directions. Using available blood samples (and wearing gloves), have participants test a few samples to watch the colours change and read the results.

7. Without interfering with care, if feasible, assign participants to patients (see note B below). As feasible, with supervision, participants should practise the following:
- check for signs of shock
- give bolus of glucose
- take rectal temperature
- warm a child
- give first feed.
Watch participants carefully and give feedback. Let other participants observe the practice.

8. Assign each participant to identify the clinical signs of a particular child on the ward and record the patient’s information on the initial management page of a CCP. Even if the child is not a new patient, participants should assess the child as though they are a new patient. Participants should complete as much of the initial management page as possible. Unless the child is too ill, this will involve weighing and measuring the child. (If the child is too ill, use a weight or height from the hospital record.)

9. After all participants have finished, conduct rounds of the children assessed.

At end of the session

- Summarize the session with participants.
- Answer any questions.

**Note A. Clinical signs to teach on Day 3**

Show these signs or problems when present. Also ask participants questions to review the definitions of these signs and how to check for them:

- Hypothermia.
- Hypoglycaemia.
- Shock.
- Signs of dehydration.

Keep in mind that dehydration tends to be overdiagnosed and is severity overestimated in children with severe acute malnutrition because it is difficult to determine dehydration accurately from clinical signs alone. Useful indicators can include an eagerness to drink, exhaustion, cool and moist extremities, weak or absent radial pulse, and reduced or absent urine flow.

Also review the clinical signs from Day 2 (oedema, dermatosis, eye signs).
Note B. Assigning cases for initial management

There may be too few new admissions for each participant to be assigned to a new patient. There are several alternatives, which can be used in combination.

- Participants may group together to watch an especially interesting case being examined by hospital staff. Explain what is happening, what the staff are doing, and what results are found. Participants should record on the CCP while they observe. They should participate in the examination if it will not interfere with care of the child. For example, one participant could be asked to check for signs of shock, another to take the rectal temperature, and another to give the initial bolus of glucose (if needed).
- Two or three participants may work together to examine a patient. Each participant records on a CCP.
- Each participant may examine a child already on the ward as if the patient were a new admission. Participants should ask the questions and do the tasks that would be necessary for initial management (weigh, measure, MUAC, check for signs of shock, ask about diarrhoea, check for signs of dehydration). If blood work has already been done on the child, participants should look at the child's record for the results. If blood work has not yet been done and is needed, with permission and supervision of hospital staff, participants may take a blood sample and use dextrostix to test for blood glucose level. Participants should record results on the CCP.

It is important that participants actually do as many tasks as possible, not just observe. You will have to work out the best way for participants to practise the tasks given the patients available.

It is possible that participants may discover that a child is being treated inappropriately. For example, they may find a child who is unnecessarily receiving intravenous (IV) fluids. If a participant discovers inappropriate treatment, discuss the correct treatment with participants. As soon as possible, discuss the situation privately with the appropriate hospital staff.

Day 4: flexible half day, optional clinical practice

Any of the preceding activities may be repeated for extra practice. If you feel that extra practice is needed, discuss this with the course director. If the case management in the hospital is good, participants may be assigned to “shadow” and assist a caregiver in the hospital for part of the day. This day may also be a good opportunity to achieve the additional objectives of observing a teaching session with mothers, or observing a play session.

Note to clinical instructor

On Day 6 you will need correctly completed 24-hour food intake charts for a number of children for one or more days. So that you will have these available, ensure that staff are keeping the 24-hour food intake charts. You may need to help or provide some instruction. If the staff keep different records of feeding, you may
be able to transcribe these records onto the 24-hour food intake charts. Otherwise, you may need to “make up” realistic charts based on the staff’s description of how the child is feeding.

On Day 7 you will need detailed information on a child who has been in the hospital for at least 3 days. Preferably, staff are keeping CCPs routinely on children in the ward. If they are not, request that staff keep some type of careful records on daily care, daily weight, monitoring data, and other indicators for several children over the next few days. Select children who are likely to still be in the hospital on Day 7 of the course. You may then transcribe this information onto a CCP.

**Day 5: initial management and feeding**

| To prepare | Brief staff that participants will again observe and participate, as possible, in initial management. Tell staff that you are especially interested in seeing new patients and severely malnourished patients who have diarrhoea. Select new or recent admissions to be seen by participants.  
Obtain a supply of the initial management page of the CCP (two per participant) and 24-hour food intake charts (two per participant).  
Brief staff in the ward about when participants may observe and possibly assist with measuring and giving feeds. Confirm the feeding schedule so that you will know how to pace the activities during the session.  
Ask facilitators to tell participants to bring all four reference cards and a pencil or pen. |
| Participant objectives | • Observe and assist in doing initial management, if feasible, including:  
- identify signs of possible dehydration in a severely malnourished child  
- measure and give rehydration solution for malnutrition (ReSoMal)  
- monitor a child on ReSoMal  
- determine antibiotics and dosages  
• Observe nutrition staff and nurses measuring and giving feeds.  
• Practise measuring, giving, and recording feeds. |
1. Review with participants the objectives for today’s session. Explain that they will continue to practise initial management tasks practised on Day 3. In addition, they will practise the tasks listed in the objectives for today.

**Initial management**

2. Continue having participants observe and participate in initial care. Assign participants to patients as feasible. Supervise closely. Have participants complete an initial management page of the CCP on each case observed or managed. Without interfering with care, if feasible, ask different participants to practise the following:
   - check for signs of shock
   - give bolus of glucose
   - take rectal temperature
   - warm a child
   - give first feed.
   For patients with watery diarrhoea, also ask participants to practise the following:
   - look for signs of possible dehydration
   - measure an appropriate amount of ReSoMal for child (when there is possible dehydration)
   - give ReSoMal orally or through nasogastric (NG) tube
   - monitor child on ReSoMal and record results.

3. Ask participants to determine the appropriate antibiotics and dosages for the patient and record them on the CCP. They should refer to the antibiotics reference card as needed. Discuss their answers.

4. When participants are ready, conduct rounds.

**Feeding**

5. Move to the kitchen area and then the ward so that participants can observe nurses measuring and giving feeds to children at all stages of treatment. Explain (or have the nurse show and explain) how the correct amount of feed is measured for each child.
6. When it is feeding time, find a mother or nurse who is breastfeeding or feeding a child correctly with a cup, and have participants observe the position of the mother, how the child is held, how the cup is held, and how long to pause between sips. Find a child who is being fed by NG tube and show how the feed slowly drips in. (It should not be plunged.)

7. Without interfering with usual feeding procedures, give each participant an opportunity to measure the correct amount of feed for a particular child, feed that child, and record intake on the 24-hour food intake chart. Watch and give feedback to participants on how they feed the child – holding the child closely and gently, encouraging the child to eat (see note A below). Be sure that participants correctly measure and record leftovers.

At end of the session

- Summarize the session with participants.
- Answer any questions.

Note A. Holding and feeding children

Participants can help with NG feeding while a child is lying down or held by the mother. However, to feed a child properly with a cup, the participant must hold the child. Children may be distressed if taken from the mother. Participants should not cause the child distress. If the child clings to the mother, the participant may sit with the mother, observe and offer assistance or guidance as the mother feeds the child. For example, if a mother tries to pour the feed quickly into a child who is lying flat, the participant might show the mother how to prop the child more upright in her arms and feed more slowly.

When holding children, participants must be careful of hygiene. They should wear a lab coat or place a towel in the lap if possible. They should wash their hands carefully before the clinical practice session, between children, and when the session ends.
**Day 6: feeding**

| To prepare | For a day or two before this session, ensure that 24-hour feeding charts are correctly kept on children in the ward.  
Brief staff in the ward that participants will assist with measuring and giving feeds. Confirm the feeding schedule so that you will know how to schedule the activities during the session.  
Identify several children at different stages of feeding: breastfeeding, feeding with an NG tube, ready to decrease frequency of feeds of F-75, not ready to decrease frequency, ready for transition. Get a copy of yesterday’s 24-hour food intake chart, or fill in a 24-hour food intake chart for each. Make copies of them to show participants (three to six copies).  
Obtain a supply of blank 24-hour food intake charts (three or four per participant). |
| --- | --- |
| Participant objectives | • Review 24-hour food intake charts and plan feeds for the next day.  
• Determine if child is ready for ready-to-use therapeutic food (RUTF)/F-100.  
• Continue to practise measuring, giving, and recording feeds. |
| Clinical instructor procedures | 1. Review the objectives for the clinical session. Explain that the focus today will be about making decisions on the feeding plan for a child. Participants will also continue to practise feeding tasks.  
2. With the group, go to the bedside of one of the children whose feeding you will discuss. Give a brief history of the child (how many days in the hospital, admission weight, clinical signs on admission). Distribute copies of the previous one or two days’ 24-hour food intake charts for the child. (Participants can share copies of the intake charts and then return them to you.) Ask participants questions about the child’s feeding, for example: What was the child fed yesterday? How often was the child fed? Did the amount increase during the day? Were there any problems?  
Tell the participants the child’s weight today. (Weigh the child if necessary.) Ask participants what the child should be fed today (F-75 or F-100 or RUTF), how many feeds, how much, and by what means (NG or cup). Ask the participants to use their reference cards and then write down their answers at the top of a blank 24-hour feeding chart. Discuss what participants decided and why.  
Go to the bed of the next child selected and repeat this process. |
3. At relevant points in the discussions, review concepts from Module 4, on feeding, by asking questions such as: How long should a child stay on 2-hourly feeds of F-75? 3-hourly feeds of F-75? What are the signs that NG tube-feeding is needed? When is a child ready for transition? What happens each day during transition?

4. When it is feeding time, assign a participant to each child discussed. You may assign participants to other children as well. Without interfering with usual procedures, give participants an opportunity to measure the correct amount of feed for a particular child and feed the child. Watch and give feedback to participants on how they feed the child (holding the child closely and gently, encouraging the child to eat). Be sure that participants correctly measure leftovers and record intake on the 24-hour food intake chart.

If possible, attach the 24-hour food intake charts to the beds and have participants from the next group record later feeds on the same charts. If possible, also have staff record other feeds during the day. Thus participants can see how the child is doing throughout the day. The day after, participants can decide what the appropriate feeding plan should be for these same children.

At end of the session

- Summarize the session with participants.
- Answer any questions.
**Day 7: daily care**

<table>
<thead>
<tr>
<th>To prepare</th>
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<tbody>
<tr>
<td>Brief the staff on the objectives for the day. Get their ideas and cooperation for participants to work alongside them to carry out daily care tasks (listed below) for several children.</td>
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<tr>
<td>Select children for whom participants will help carry out daily care tasks during the day. Do not select children who are so critically ill that their care will be compromised by interactions with participants. For continuity, include some of the children fed yesterday if possible. Include at least one child who has been in the hospital for at least 3 days and has complete records of care, daily weights, and other indicators. Preferably, this information has been kept on a CCP. If not, you may transcribe the information onto a CCP.</td>
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<tr>
<td>Brief staff that the participants will come to monitor the ward using a checklist. After completing the checklist, participants monitor the ward at the beginning of the training. They will provide feedback on the good practices as well as on the areas that need improvement in the ward. Explain that participants will be observing the ward and may ask some questions, all for the purpose of completing a monitoring checklist and becoming familiar with the ward procedures. Ask facilitators to be sure that participants bring their copies of Module 6, on monitoring and problem solving, to the session.</td>
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<tr>
<td>Obtain a supply of CCPs (all pages) and 24-hour food intake charts (three sets or more per participant).</td>
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</table>

<table>
<thead>
<tr>
<th>Participant objectives</th>
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<tbody>
<tr>
<td>• Keep CCPs on children observed and cared for.</td>
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<tr>
<td>• Participate in daily care tasks, as feasible:</td>
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<tr>
<td>- measure respiratory rate, pulse rate and temperature</td>
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<tr>
<td>- administer eye drops, antibiotics</td>
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<td>- change eye bandages</td>
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<tr>
<td>- weigh child and record weight (on daily care page and on weight chart of CCP)</td>
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<tr>
<td>- observe and assist with bathing children (depending on schedule)</td>
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<tr>
<td>- assist with feeding (continued practice)</td>
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<tr>
<td>- monitor ward using checklist (if time allows).</td>
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The focus in this session will be on the daily care page, the monitoring record, and the weight chart.
**Clinical instructor procedures**

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>1.</strong></td>
<td>Review the objectives for the clinical session.</td>
</tr>
<tr>
<td><strong>2.</strong></td>
<td>Go to the bedside of a child for whom you have fairly complete information for at least 3 days. Give each participant a CCP. Present information on the child and demonstrate monitoring the child while participants record on the CCP (for details, see note A below).</td>
</tr>
<tr>
<td><strong>3.</strong></td>
<td>Discuss whether participants see any progress or problems with the child’s care. Be sure that they look at the child as well as information that they have recorded. Discuss the child’s feeding plan and any changes that may be needed in their care.</td>
</tr>
<tr>
<td><strong>4.</strong></td>
<td>Go together to the beds of children fed by participants yesterday. Describe the feedings that occurred since the participants last saw the child. Discuss what the feeding plan for the child should be today.</td>
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<tr>
<td><strong>5.</strong></td>
<td>Assign each participant two children to monitor, care for, and feed when it is time today. Some of the children may be those who were fed by participants yesterday, and others may be new. Give the participant a CCP and 24-hour food intake chart for each child. Nurses will be caring for these children too. Participants should observe the nurses and assist with care as much as possible. They should complete (or add to) a CCP on each child. Watch to see that each participant is assisting with care and completing CCPs correctly. Step in to give guidance and feedback whenever needed.</td>
</tr>
<tr>
<td><strong>6.</strong></td>
<td>Each participant should take respiratory and pulse rates and temperatures for their assigned children. Observe carefully. Compare with your own measurements, or have another participant take rates on the same child and compare the results. If the results differ significantly, more practice is needed.</td>
</tr>
<tr>
<td><strong>7.</strong></td>
<td>If any child is identified with danger signs (increases in pulse or respiratory rate, increase or decrease in temperature), show the entire group. Ensure that the physician responsible for the child is alerted.</td>
</tr>
<tr>
<td><strong>8.</strong></td>
<td>If children are being bathed, participants should observe and possibly assist. Emphasize that bathing is done gently and the child is quickly dried, re-covered, and warmed.</td>
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<tr>
<td><strong>9.</strong></td>
<td>If practical, attach the CCPs completed by the first group to the beds of the children. The later groups can then continue with the same CCP for each child. (This may not be practical if the forms are illegible. If not practical, later groups may start with new CCPs.)</td>
</tr>
</tbody>
</table>
10. If time allows, have participants monitor the ward using checklists from Module 6, on monitoring and problem solving. Assign portions of the checklists to pairs of participants. The participants may already know how to mark some items, based on their observations during the week, or they may need to observe or ask the staff some questions now. Ask them to be quiet when observing and non-offensive when asking questions of staff. Participants will discuss the results of monitoring when they return to the classroom.

At end of the session

- Summarize the session with participants. Since this is the last day, review any points that need to be stressed with this group.
- Answer any questions.
- Commend participants for their hard work during the course.

Note A. Recording on daily care page, weight chart, and monitoring record

Participants do not need to complete the entire initial management page, but you should tell the child’s length/height and weight and briefly describe clinical signs and initial management of the child. Also state what antibiotics were prescribed. (If any care given was contrary to course guidelines, discuss this.)

Ask participants to record on the daily care page as you describe what has happened each day of the child’s treatment. For example, state the date, the child’s weight, the extent of oedema, whether there was diarrhoea or vomiting, the type of feed given, and the number of feeds. Participants may record their own initials to show when antibiotics and other treatments were given. (You do not have to start with Day 1; if you have information for Days 11 through 13, for example, participants may record in those columns.)

Complete recording for 1 day before going to the next. When you have completed the columns for 3 days, ask participants to graph the weights on the weight chart. Include the admission weight as well as the weights for the days just recorded. (If you know weights from any intervening days, you may ask participants to record those as well.)

Staying by this same child, have participants turn to the monitoring record. Note: If there are previous monitoring data on the child, dictate several recent pulse rates, respiratory rates, and temperatures to participants so that they will be able to record and observe any trend.

Demonstrate how to monitor the child’s pulse and respiration. If the child remains calm, have a participant try and see if they obtain the same rates. Ask another participant to take the child’s rectal temperature. Have all participants record these on the monitoring record of the CCP. Ask participants what danger signs they should look for related to pulse, respiration, and temperature.
Additional objectives: observation of a teaching session and a play session

To prepare
Check the schedule to determine when each group will observe the teaching and play sessions. You will bring the group to the site of the teaching session or play session and introduce it to them. You or a facilitator of one of the small groups could lead discussions of the sessions afterwards.

If a facilitator leads the discussions afterwards, give them copies of the discussion questions in the notes below.

Brief the staff that participants will observe some teaching sessions and play sessions and provide the schedule for this.

Participant objectives
• Observe teaching session with mothers.
• Observe play session.

Clinical instructor procedures
1. Review with the participants the objectives for the teaching or play session. Ask them to observe closely and make notes on what is done well and any ideas for improvement.
2. Watch the teaching session or play session with participants, if possible.
3. After the session, lead a discussion of what was accomplished in the session and how (see notes A and B below).

At end of the session
• Summarize the session with participants.
• Answer any questions.

Note A. Discussion of teaching session for mothers
Below are questions to discuss with participants.

1. What were the main points that were being taught?
2. What teaching methods were used?
3. How did they give demonstrations or examples?
4. What materials were used?
5. Did the session hold the mothers’ attention?
6. Were mothers asked to contribute ideas?
7. Were they encouraged to ask questions?
8. Were there opportunities for mothers to practise?
9. Do you think they learned and will remember what was taught?
10. Describe the manner and attitude of the staff towards the mothers.
11. What was done well in this teaching session?
12. What could be improved?

Note B. Discussion of play session
Discuss the following questions.

1. What were the main purposes of the session?
2. What activities were carried out?
3. What materials or toys were used?
4. Were they appropriate for the age and development of the children?
5. Could they be made in homes?
6. Describe the manner of the staff towards the children.
7. Describe the manner of the staff towards the mothers.
8. Did the mothers learn and practise how to play with their children?
9. Do you think the mothers will play with their children in this way at home? Why or why not?
10. What was done well during the session?
11. What could be improved in the play session?
12. What could be improved in the ward related to stimulation and play?
Annex 1. Equipment, Supplies and Staff Needed for Severe Acute Malnutrition Ward

Equipment and supplies needed for severe acute malnutrition ward

Ward equipment and supplies
• bandages
• blankets or wraps for warming children
• board for measuring length (plus pole of known length for checking accuracy)
• MUAC tapes
• calculator
• child weighing scales (plus items of known weight for checking scales)\(^6\)
• clock
• dextrostix/glucometer
• eye pads
• gauze
• haemoglobinometer
• stethoscope
• incandescent lamp or heater
• paediatric nasogastric tubes
• running water
• safe, home-made toys
• stadiometer (to measure standing height)
• sterile needles
• sticky tape
• supplies for blood transfusion:
  - blood packs
  - bottles
  - syringes and needles
  - other blood-collecting materials
  - grouping and cross-match, testing for HIV, syphilis, and hepatitis (necessary before blood transfusion)
• supplies for IV:
  - scalp vein (butterfly) needles, gauge 21 or 23
  - citrate solution, 10–100 units/ml
  - poles or means of hanging bottles of IV fluid
  - tubing
  - bottles or bags
• syringes (2 ml for drugs, 5 ml for drawing blood, 10 ml)
• syringes (50 ml for feeds)
• thermometers (preferably rectal and low-reading)
• wash basin for bathing children

\(^6\) Scales must be functioning correctly, preferably digital mother-child scale, in order to weigh even the very ill or weak, since weighing is done while being held by caregiver, and digital scale for infants aged under 6 months.
For hygiene of mothers and staff
- method for trash disposal
- place for washing bedding and clothes
- soap for handwashing
- toilet and handwashing facilities

For reference and record keeping
- relevant tables, such as:
  - weight-for-height reference card
  - F-75 reference card
  - F-100 reference card
  - RUTF reference card
  - antibiotics reference card
- suitable forms for record keeping, such as CCP and other forms requesting similar information (weight charts, monitoring records, etc.)
- 24-hour food intake charts

Kitchen equipment and supplies
- clean water supply
- dietary scales able to weigh to 5 grams
- electric blender or manual whisks
- feeding cups, saucers, spoons
- foods similar to those used in homes (for teaching or use in transition to home foods)
- jugs (1 litre and 2 litres)
- large containers and spoons for mixing and cooking feed for the ward
- measuring cylinders (or suitable utensils for measuring ingredients and leftovers)
- recipes/preparation instructions for therapeutic milks
- refrigeration

Pharmacy equipment and supplies
- combined minerals and vitamins (CMV) or mineral mix (if CMV not available)
- electrolytes and minerals:
  - potassium chloride
  - tripotassium citrate
  - magnesium chloride
  - zinc acetate
  - copper sulfate
- folic acid
- glucose (or sucrose)
- iron syrup (e.g. ferrous fumarate)
- IV fluids – one of the following, listed in order of preference:
  - half-strength Darrow’s solution with 5% glucose (dextrose)
  - Ringer’s lactate solution with 5% glucose
  - 0.45% (half-normal) saline with 5% glucose

* If either of these is used, sterile potassium chloride (20 mmol/L) should be added if possible.
• multivitamin without iron
• pharmaceutical scales
• sterile water for diluting
• vaccines (Bacillus Calmette-Guérin (BCG), oral poliomyelitis vaccine (OPV), diphtheria-pertussis-tetanus (DPT) and measles)
• vitamin A
• water for injection (ampoules 2, 5 and 10 ml)
• WHO ORS for use in making ReSoMal (or commercial ReSoMal)
• 0.9% saline (for soaking eye pads)

Drugs
• amoxicillin
• ampicillin
• artemether + lumefantrine tablets
• artesunate suppository
• atropine eye drops
• benzylpenicillin
• cefotaxime
• ciproflaxacin (oral formulation)
• cloxacillin
• cotrimoxazole
• fluconazole for injection
• gentamicin
• magnesium sulfate for injection (intramuscular)
• mebendazole, albendazole or other drugs for treatment of worms
• metronidazole
• nystatin
• tetracycline or chloramphenicol eye drops

For skin
• gentian violet
• nystatin ointment or cream (for candidiasis)
• paraffin gauze (tulle gras)
• permethrin: cream and lotion
• petroleum jelly ointment
• zinc oxide ointment

Laboratory resources, accessible if needed
• blood culture
• cerebrospinal fluid culture
• full blood count
• malaria slide or rapid diagnostic test (in malaria-endemic areas)
• HIV test (in areas of high HIV prevalence)
• stool culture
• tuberculosis tests (X-ray, culture of sputum, Mantoux test)
• urinalysis

7 As on note of drug kit for management of severe acute malnutrition with medical complications (see supporting materials).
Staff needed for severe acute malnutrition ward

Clinical staff

Clinical staff include nurses, doctors and nutritionists/dietitians. They must be specifically trained in the management of severe acute malnutrition in order to appropriately treat affected children. It should be stressed that treating severely malnourished children using management protocols for non-malnourished children is dangerous and may result in severe complications or even death.

Assistants

The assistants undertake such activities as weighing the child, supervising feeding, and interacting with the mother or the person in charge of the child, and can also play a role in the emotional and physical stimulation of the child. One assistant per 10 patients is appropriate. The assistants will be trained by the clinical care staff.

Support staff

Cleaners, kitchen staff and other support staff are essential for maintaining a clean environment and assisting in such areas as the preparation of therapeutic milks.

Supervisors

A supervisor must be responsible for each unit of patient care. It is important that the supervisor in charge of the severe acute malnutrition ward has received specific training in the management of severe acute malnutrition.
The tally sheet for each clinical session can help you to keep track of the objectives accomplished with each group. It will also help you to report to the course director and facilitators at the end of each day about what was accomplished in the clinical sessions.

Complete the tally during or immediately after your work with each group in the ward. To use the tally:

1. Record any identifying information about the group at the top of the column. You may want to record the time of the session, the number of participants in the group, or other identifying information.
2. Mark on the tally sheet for each objective accomplished by the group. Make notes to indicate how many participants practised the task (perhaps by putting a tally mark or initial for each). Also note if the participants had problems accomplishing the task. You can use letters or numbers to annotate the problems and write notes on the bottom or back of the sheet. The problems noted will help you when you discuss participants’ performance at the facilitator meeting. (Problems in understanding could be addressed by the facilitator the next day in the classroom.) These notes will also help you keep track of the skills that need further practice.
3. Some objectives may not be feasible because of lack of patients, or time, or for whatever reason. Discuss these with the course director. Perhaps they can be accomplished on another day, or if you have assistance. Some may just not be practical to achieve.

Tally sheets for clinical sessions

Day 1: tour of ward(s)

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe the admissions area</td>
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<tr>
<td>Observe the emergency treatment area</td>
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<tr>
<td>Observe how the severe acute malnutrition ward or area is organized</td>
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<tr>
<td>Observe the kitchen area</td>
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<tr>
<td>Observe any special areas for play, health education, or other activities</td>
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</table>
Day 2: clinical signs

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe children and look for clinical signs of severe acute malnutrition</td>
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<tr>
<td>Weigh and measure children</td>
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<tr>
<td>Look up weight-for-height Z-scores</td>
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<tr>
<td>Measure mid-upper arm circumference</td>
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<tr>
<td>Identify children who are severely malnourished</td>
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Day 3: initial management

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe initial management of severely malnourished children</td>
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<tr>
<td>Identify clinical signs of severe acute malnutrition, hypoglycaemia, hypothermia, shock, and dehydration</td>
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<tr>
<td>Practise using dextrostix</td>
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<tr>
<td>Practise filling a critical care pathway (CCP) during initial management</td>
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<tr>
<td>Assist in doing initial management, if feasible, such as:</td>
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<tr>
<td>• Take rectal temperature</td>
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<tr>
<td>• Give bolus of glucose for hypoglycaemia</td>
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<tr>
<td>• Warm child</td>
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<td></td>
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<tr>
<td>• Give first feed</td>
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<tr>
<td>• Assess need for eye care</td>
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</table>

Day 4: flexible half day, optional clinical practice

This time could be used to provide extra practice or to observe a teaching or play session (see additional objectives listed at end).
Day 5: initial management and feeding

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe and assist in doing initial management, if feasible, including:</td>
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<tr>
<td>• Identify signs of possible dehydration in a severely malnourished child</td>
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<tr>
<td>• Measure and give rehydration solution for malnutrition (ReSoMal)</td>
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<tr>
<td>• Monitor a child on ReSoMal</td>
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<tr>
<td>• Determine antibiotics and dosages</td>
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<tr>
<td>Observe nutrition staff and nurses measuring and giving feeds</td>
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<tr>
<td>Practise measuring, giving, and recording feeds</td>
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</tbody>
</table>

Day 6: feeding

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review 24-hour food intake charts and plan feeds for the next day</td>
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<tr>
<td>Determine if child is ready for ready-to-use therapeutic food (RUTF)/F-100</td>
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<tr>
<td>Continue to practise measuring, giving, and recording feeds</td>
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</table>
## Day 7: daily care

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep CCPs on children observed and cared for</td>
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<tr>
<td>Participate in daily care tasks, as feasible:</td>
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<tr>
<td>• Measure respiratory rate, pulse rate and temperature</td>
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<tr>
<td>• Administer eye drops, antibiotics</td>
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<td>• Change eye bandages</td>
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<tr>
<td>• Weigh child and record weight (on daily care page and on weight chart of CCP)</td>
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<tr>
<td>• Observe and assist with bathing children (depending on schedule)</td>
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<tr>
<td>Assist with feeding (continued practice)</td>
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<tr>
<td>Monitor ward using checklist (if time allows)</td>
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</tbody>
</table>

### Additional objectives

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe teaching session with mothers</td>
<td></td>
<td></td>
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<tr>
<td>Observe play session</td>
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</tbody>
</table>
# Annexe 3. Chart for Scheduling Clinical Sessions

<table>
<thead>
<tr>
<th>Clinical session</th>
<th>Duration</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1: tour of ward</td>
<td>1 hour</td>
<td></td>
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<tr>
<td>Day 2: clinical signs</td>
<td>1.5 hours</td>
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<tr>
<td>Day 3: initial management</td>
<td>1.5 hours</td>
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<tr>
<td>Day 4: flexible half day, optional clinical practice</td>
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<tr>
<td>Day 5: initial management and feeding</td>
<td>2 hours</td>
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<tr>
<td>Day 6: feeding</td>
<td>1.5 hours</td>
<td></td>
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<tr>
<td>Day 7: daily care</td>
<td>1.5 hours</td>
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<tr>
<td>Observe teaching session for mothers (occurs at daily)</td>
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<tr>
<td>Observe play session (occurs at daily)</td>
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</tbody>
</table>
For more information, please contact:
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World Health Organization
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CH-1211 Geneva 27
Switzerland
Email: nutrition@who.int
Website: https://www.who.int/health-topics/nutrition