

COURSE DIRECTOR GUIDE



Government of Sudan

**Training Course on
Inpatient Management of
Severe Acute Malnutrition**

**Children 6–59 Months with SAM
and Medical Complications**

June 2011

This modified version of the 2002 World Health Organisation's *Training Course on Inpatient Management of Severe Acute Malnutrition (SAM)* is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim Manual Community-Based Management of Severe Acute Malnutrition (November 2009)*. The training course is made possible by the generous support of the American people through the support of the Office of U.S. Foreign Disaster Assistance, Bureau for Democracy, Conflict and Humanitarian Assistance, and the Office of Health, Infectious Diseases, and Nutrition, Bureau for Global Health, United States Agency for International Development (USAID), under terms of Cooperative Agreement No. AID-OAA-A-11-00014, through the FANTA-2 Bridge, managed by FHI 360. The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.

Illustrations for modules: Susan Kress

The *Course Director Guide* is one part of a set of course materials for conducting the *Training Course on Inpatient Management of Severe Acute Malnutrition*. The user of this guide should be familiar with the course materials and teaching methods.

Contents

Acknowledgements	iii
Acronyms and Abbreviations	v
Part 1: Planning and Administrative Arrangements	1
1. Training Materials	1
2. Criteria for Selecting a Hospital for Clinical Sessions.....	2
3. Equipment and Supplies for Inpatient Management of SAM	3
4. Checklist for Planning and Administrative Arrangements.....	7
5. Criteria for Selecting a Clinical Instructor and Facilitators	13
6. Checklist of Instructional Training Course Materials Needed.....	16
6. List of Other Supplies Needed	17
Part 2: Preparing for Clinical Sessions.....	19
1. Preparing the Clinical Instructor	19
2. Visiting the Ward to Finalise Arrangements.....	19
3. Scheduling Clinical Sessions.....	20
Part 3: Training Facilitators	22
1. General Structure of the Facilitator Training Session	22
2. Daily Schedule	23
3. Practice of Facilitator Techniques.....	24
4. Using This Guide to Conduct the Facilitator Training.....	24
Facilitator Day 1.....	26
Opening Session	26
Introduction to the Facilitator Training.....	26
Module 1: Introduction.....	29
Module 2: Principles of Care.....	31
Module 3: Initial Management	36
Assignments for the Next Day	37
Facilitator Day 2.....	39
Continuation of Module 3: Initial Management.....	39
Module 4: Feeding.....	40
Assignments for the Next Day	42
Facilitator Day 3.....	44
Module 5: Daily Care	44
Module 6: Monitoring, Problem Solving and Reporting	44
Assignments for the Next Day	46
Facilitator Day 4.....	47
Module 7: Involving Mothers in Care.....	47
Practical Arrangements for the Case Management Training	48
Closing Remarks to Facilitators	48
Part 4: Responsibilities of the Course Director during the Case Management Training	50
Suggestions for Opening Remarks to Case Management Training Participants.....	50
Supervision of Facilitators.....	50
Supervision of the Clinical Instructor	55
Collection of Data during the Case Management Training.....	55
Pre- and Post-Course Test	56

End of Training Evaluations.....	56
Closing Session	56
Annex A: Chart for Scheduling Clinical Sessions.....	57
Annex B: Schedule for the Facilitator Training.....	60
Annex C: Schedule for the Case Management Training.....	64
Annex D: Training Course Registration Form	66
Annex E: Facilitator Practice Assessment Grid.....	68
Annex F: Facilitator Meetings Report	69
Annex G: Pre- and Post-Course Test of the Case Management Training.....	71
Annex H: End of Training Evaluations	76
Annex I: Training Course Report Outline	80
Annex J: Training Course on Inpatient Management of Severe Acute Malnutrition, Slide Presentation.....	81

Acknowledgements

This field training course is the practical application of the 1999 World Health Organisation (WHO) publication *Management of severe malnutrition: a manual for physicians and other senior health workers*, and WHO is grateful to all those involved in the production of this fundamental training course. WHO would particularly like to thank ACT International, USA, and especially Ms P. Whitesell Shirey for having developed the manuscript of the Training Course, together with Ms F. Johnson, who also acted as the course co-ordinator during the field testing. WHO acknowledges with all gratitude the substantial technical contribution and advice of Professor A. Ashworth-Hill from the London School of Hygiene and Tropical Medicine, who has also acted as one of the course facilitators. Special thanks are extended to Dr S. Khanum (former Regional Adviser for Nutrition and Food Safety, WHO Regional Office for South-East Asia in New Delhi), Department of Nutrition for Health and Development, for her technical contribution, comments and advice throughout the development of the training modules and also for organising the field testing as a course director.

WHO also expresses its appreciation for helpful contributions from course facilitators during the field testing of the training modules, notably, Dr S. Aiyer, India; Dr T. Nu Shwe, Myanmar; Dr E. Poskitt, UK; Dr T. Ahmed, Dr S. Shakur and Dr K. Jamil, Bangladesh; and all the course participants from Bangladesh, Bhutan, Indonesia, Myanmar, and Nepal.

WHO expresses sincere gratitude to Professor J.C. Waterlow, UK, and to Professor A. Jackson, University of Southampton, UK, for their technical support and expertise during preparatory meetings held in London in November 1999 and September 2000.

Also acknowledged are contributions of WHO staff in the Department of Nutrition for Health and Development, Dr G.A. Clugston and Dr M. de Onis, and support from the Department of Child and Adolescent Health and Development.

WHO would like to thank the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) for conducting the field testing of the training modules.

The financial support of the governments of the United Kingdom of Great Britain and Northern Ireland (Department for International Development) and the Kingdom of The Netherlands toward the development and publication of this Training Course is also gratefully acknowledged.

This modified version of the training materials for the course on inpatient management of severe acute malnutrition (SAM) is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim National Guidelines for the Community-Based Management of Severe Acute Malnutrition (November 2009)*.

The GOS wants in particular to thank Professor Mabyou Mustafa, course director and team leader of the review of the training materials, who skilfully guided all reviewers, facilitators and trainees. The GOS also thanks Community-Based Management of Acute Malnutrition (CMAM) technical working group members Dr Ali Arabi and Dr Elamin Osman, who acted as reviewers and assisted the course director during the facilitator and case management training during which the training materials were field tested.

Also acknowledged are the valuable contributions of the FMOH National Nutrition Program, Ms Salwa Sorkatti, Director, and Ms Fatima Aziz, Assistant Director, for facilitating the overall review and field testing of the training materials, and of Ms Amira M. Almunier and Ms Ibtihalat M. Elidirisi for participating in the review. Special thanks are extended to Dr Sofia Mohamed, Dr Amal Abdel Bagi, Dr Badrelddin S. Ali, Ms Amira M. Almunier, Dr Karrar Makki, Dr Sumaia Mohamed Alasad, Dr Amani Hashim Algalal, Dr Fathia Mohamed AbdelMagid, Maha FadelAllah and Ms Wafaa Badawi for their participation as facilitators, clinical instructors and nutrition instructors in the training. Finally, thanks go to all the participants in the Case Management Training for their valuable comments during the field testing of the training materials. Thanks are extended to Gaffar Ibn Auf Children Hospital for facilitating and preparing the site for the clinical training sessions.

Special thanks are extended to UNICEF and the CMAM support team members from UNICEF, WHO, the World Food Programme and Ahfad University for Women for their valuable contributions in the review of the training materials.

The financial support from the United States Agency for International Development (USAID) Bureau for Global Health, Office of Health, Infectious Diseases, and Nutrition, and the USAID Bureau for Democracy, Conflict, and Humanitarian Assistance Office of U.S. Foreign Disaster Assistance, and the technical support from the FHI360/Food and Nutrition Technical Assistance II Project (FANTA-2), and its sponsored partners from Ghana, Niger and South Sudan, for the completion of the training materials are also gratefully acknowledged.

Acronyms and Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
AWG	average daily weight gain
BMI	body mass index
cm	centimetre(s)
CMAM	Community-Based Management of Acute Malnutrition
CMV	combined mineral and vitamin mix
dl	decilitre(s)
ENA	Essential Nutrition Actions
FMOH	Federal Ministry of Health
g	gram(s)
GOS	Government of Sudan
Hb	haemoglobin
HFA	height-for-age
HIV	human immunodeficiency virus
IGF	insulin growth factor
IM	intramuscular
IMCI	Integrated Management of Childhood Illness
IU	international unit(s)
IV	intravenous
IYCF	infant and young child feeding
kcal	kilocalorie(s)
kg	kilogram(s)
L	litre(s)
LOS	length of stay
M&R	monitoring and reporting
MAM	moderate acute malnutrition
ml	millilitre(s)
mm	millimetre(s)
MUAC	mid-upper arm circumference
µg	microgram(s)
NG	nasogastric
NGT	nasogastric tube
OPD	outpatient department
ORS	oral rehydration solution
PCV	packed cell volume
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission of HIV
QI	quality improvement
ReSoMal	Rehydration Solution for Malnutrition
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SFP	supplementary feeding programme
TB	tuberculosis
UNSCN	United Nations Standing Committee on Nutrition
WFA	weight-for-age
WFH	weight-for-height
WFP	World Food Programme
WHO	World Health Organisation

Part 1: Planning and Administrative Arrangements

Careful planning and strong administrative support are essential before, during and after the *Training Course on Inpatient Management of Severe Acute Malnutrition*. This section of the *Course Director Guide* describes the necessary plans and arrangements.

Clinical practice is an essential part of the Case Management Training. The training provides daily practice in using case management of severe acute malnutrition (SAM) skills so that Case Management Training participants can apply these skills correctly when they return to their own hospitals. In addition to daily classroom work, each day of training every small group of participants visits a ward where children with SAM (Inpatient Care or SAM ward) are treated for practice identifying clinical signs and managing patients.

It is critical to select a location for the training course (town or area) that has a hospital with a SAM ward that can be visited by participants during the training course. This hospital should manage SAM according to the principles and procedures in the Government of Sudan Interim Manual: Community-Based Management of Severe Acute Malnutrition, Version 1.0 (November 2009) (referred to throughout the set of training materials as the CMAM Manual). It may be necessary to provide certain equipment, supplies and consultation to this hospital, well in advance of the training course, to ensure that the hospital will demonstrate good case management.

Part 1 of this guide describes first how to have the training materials updated to the latest approved practices and how to select the hospital to be used during the training course. It then presents a checklist of the necessary plans and arrangements for the entire training course. Following the checklist are more detailed instructions for making some of the arrangements.

1. Training Materials

The training course on inpatient management of SAM covers all aspects of case management of children 6–59 months with SAM and medical complications in Inpatient Care until the condition of the child is stabilised and the child can continue treatment in Outpatient Care. It also covers the treatment of infants under 6 months with SAM, and the treatment of children 6–59 months with SAM with and without medical complications until full recovery in Inpatient Care in the absence of ready-to-use therapeutic food (RUTF). While the training course focuses on Inpatient Care, Case Management Training participants are introduced to the other components of the Community-Based Management of Acute Malnutrition (CMAM) approach to understand the links and are prepared for the collaboration with colleagues involved in the other components.

This training course relies on the active use of materials that include problem-solving discussions and exercises and on the application of case management skills. The aim is to ensure that Case Management Training participants can apply these skills correctly when they return to their own hospitals. In addition to daily classroom work, every day of training all participants, broken into small groups, visit a ward where children with SAM (Inpatient Care or SAM ward) are treated, so that participants can practise identifying clinical signs and managing patients. If possible, a field visit to an Outpatient Care site is organized so that participants can learn about the links between Inpatient Care and Outpatient Care for the management of SAM without medical complications, referral systems between the two sites,

routine case-finding in the health system, and active case-finding in the communities. Case Management Training participants have opportunities to discuss the set-up of an Outpatient Care site in the outpatient department (OPD) of their hospital, in case no Outpatient Care sites are available.

The training materials that are presented here cover all SAM case management practices for Inpatient Care and are consistent with the best practices adopted and promoted by the Federal Ministry of Health (FMOH), which are summarized in the Inpatient Care job aids and described in the CMAM Manual. It is expected that with new emerging evidence the FMOH will adapt treatment protocols and promote new practices, and therefore regularly update the job aids. Training materials might also need to be updated to reflect changes in the job aids. If procedures in the training materials are not consistent with current or new FMOH-approved practices, they should be made consistent to the extent possible prior to the training course.

It could be that there are discrepancies between practices summarized in the job aids and the CMAM Manual, as knowledge in the medical science continuously evolves, and the review of the CMAM Manual may take longer than the review and updating of job aids. To avoid compromising the effectiveness of the training, the practices that are taught will adhere to the latest practices adopted and promoted by the FMOH. If a health facility wants to upgrade its procedures to be consistent with the best practices of the FMOH, staff may require training, ward procedures may need to be changed and additional supplies may be to be obtained. The health facility may request technical assistance from the FMOH (and the World Health Organisation [WHO] or other partners) well in advance of a training course.

2. Criteria for Selecting a Hospital for Clinical Sessions

The selected hospital must have Inpatient Care or a SAM ward or a separate area for children with SAM, a sufficient caseload, acceptable quality of care and a director and staff who are interested in the training course and willing and able to cooperate.

During the Case Management Training, the SAM ward will be visited daily by trainees who will come in several small groups throughout the day. It is best if the ward is close to the classrooms to minimise time needed for transportation.

The ward should have the supplies and equipment listed on the following pages. If some supplies are not available, they will need to be provided before the training course, in plenty of time for staff to learn to use them.

Case management practices in the ward should be consistent with those summarized in the job aids and described in the CMAM Manual. If there are discrepancies between current practices of the health facility where the clinical sessions of the training course occur, the clinical instructor should be prepared to support the training site to implement the best practices of the FMOH. Local adaptation of some procedures is reasonable; the clinical instructor or Course Director should be prepared to explain how the current practice is consistent (or not consistent) with the best practices of the FMOH and the reasons for it.

3. Equipment and Supplies for Inpatient Management of SAM

Ward Equipment/Supplies

- Running water
- Thermometers (preferably low-reading)
- Child weighing scales (and item of known weight for checking scales)
- Infant weighing scales with 10 g precision (and item of known weight for checking scales)
- MUAC tapes
- Height board for measuring height and length (and pole of known length for checking accuracy)
- Adult beds with mattress
- Bed sheets
- Insecticide treated bednets
- Blankets or wraps for warming children
- Incandescent lamp or heater
- Wash basin for bathing children
- Potties
- Safe, homemade toys
- Clock
- Calculator

Pharmacy Equipment/Supplies

- Oral rehydration solution (ORS) for use in making Rehydration Solution for Malnutrition (ReSoMal) (or commercial ReSoMal)
- Combined mineral vitamin mix (CMV)
- Iron syrup (e.g., ferrous fumarate)
- Folic acid
- Vitamin A (Retinol 100,000 and 200,000 IU capsules)
- Glucose (or sucrose)
- IV fluids – one of the following, listed in order of preference:
 - Half-strength Darrow's solution with 5% glucose
 - Ringer's lactate solution with 5% glucose*
 - Half-normal (0.45%) saline with 5% glucose*

* If either of these is used, add sterile potassium chloride (20 mmol/L) if possible.
- Normal (0.90%) saline (for soaking eye pads)
- Sterile water for diluting
- Vaccines as per the national expanded programme of immunisation
- Dextrostix
- Haemoglobinometer
- Supplies for intravenous (IV) fluid administration :
 - Scalp vein (butterfly) needles, gauge 21 or 23
 - Heparin solution, 10–100 units/ml
 - Poles or means of hanging bottles of IV fluid
 - Tubing
 - Bottles or bags
- Paediatric nasogastric tubes (NGTs)
- Sticky tape
- Syringes (50 ml for feeds)

- Syringes (2 ml for drugs, 5 ml for drawing blood, 10 ml)
- Sterile needles
- Eye pads
- Bandages
- Gauze
- Supplies for blood transfusion:
 - Blood packs
 - Bottles
 - Syringes and needles
 - Other blood collecting materials

Drugs

- Amoxicillin
- Amoxicillin-clavulanic acid
- Gentamicin
- Chloramphenicol
- Ceftriaxone
- Cotrimoxazole
- Mebendazole and/or albendazole
- Tetracycline eye ointment or chloramphenicol eye drops
- Atropine 1% eye drops
- Paracetamol
- Antimalarial: Artemisinin Combination Therapy (ACT)
- Metronidazole

For Skin

- Nystatin
- Benzyl benzoate
- Whitfield's ointment
- Gentian violet
- Paraffin gauze
- Potassium permanganate
- Zinc oxide ointment

Laboratory Resources

- Malaria diagnostic test
- TB tests (x-ray, culture of sputum, Mantoux)
- Urinalysis
- Stool culture
- Blood culture
- Cerebrospinal fluid culture

Hygiene Equipment/Supplies of Mothers and Staff

- Toilet, hand-washing and bathing facilities
- Soap for hand-washing
- Place for washing bedding and clothes
- Method for trash disposal

Kitchen Equipment/Supplies

- Dietary scales able to weigh to 5 g
- Electric blender or manual whisks
- Large containers and spoons for mixing/cooking feed for the ward
- Cooking stove
- Feeding cups, saucers, spoons
- Measuring cylinders (or suitable utensils for measuring ingredients and leftovers)
- Jugs (1-litre and 2-litre)
- Refrigeration (if possible)
- For making F-75 and F-100:
 - Dried skimmed milk, whole dried milk, fresh whole milk or long-life milk
 - Sugar
 - Cereal flour
 - Vegetable oil
 - Clean water supply
- Food for mothers
- Foods similar to those used in homes (for teaching transition to homemade complementary foods)

Reference

- CMAM Manual
- Operational Guide for Inpatient Care

Job Aids

Laminated Set

- Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5
- Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care
- Action Protocols in Inpatient Care
- Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care
- 10 Steps for the Management of SAM in Children 6–59 Months in Inpatient Care
- Pathophysiology Basis for the Treatment of Severe Acute Malnutrition
- Hypernatraemic Dehydration in Children under 5 in Inpatient Care
- Weight-for-Height/Length Look-Up Tables
- F-75 Look-Up Tables
- F-100 Look-Up Tables
- F-100-Diluted Look-Up Tables
- Use of RUTF in Children 6-59 months with SAM in Inpatient Care and RUTF Appetite Test
- Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months
- Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Wall Charts

- Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5
- Action Protocols in Inpatient Care

- Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care
- 10 Steps for Management of SAM in Children 6–59 Months in Inpatient Care

Forms and Checklists

- Inpatient Management Record
- Daily Feeds Chart
- Referral Form
- Site Tally Sheet
- Monthly Site Report for CMAM
- Supervisor's Checklist

Other Documents

- List of outpatient care sites with catchment area, and names community outreach workers (developed per Inpatient Care site) (if available)
- Job descriptions

Staff

Clinical Care Staff

This includes physicians, senior nurses and junior nurses. A physician is recommended but is not always necessary. Only clinicians who are specifically trained in the management of SAM should treat these patients, because treatment for the non-malnourished child could be dangerous for the malnourished child.

A ratio of 1 clinician per 10 patients is considered appropriate in Inpatient Care.

Feeding Assistants

Feeding assistants are in charge of weighing children, supervising meals, interacting with mothers, monitoring clinical warning signs and filling in most of the information on the patient's Inpatient Management Record. Other staff in this category could be in charge of the emotional and physical stimulation programme.

A ratio of 1 assistant per 10 patients is considered appropriate in Inpatient Care.

Support Staff

Cleaners and kitchen staff are vital to maintaining a tidy environment and preparing therapeutic milks and food for mothers. In large centres, a person in charge of the logistics and transport will be necessary. Guardians, storekeepers and other ancillary staff might be needed depending on the context and size of the facility.

Supervisors

One supervisor is needed for each ward with Inpatient Care (usually, but not necessarily, a clinician).

4. Checklist for Planning and Administrative Arrangements

For every training course a brief concept is developed that outlines the rationale, overall purpose, specific learning objectives, course director and coordinators, target audience and funding sources (including a budget) of the training course. It is essential to define the target audience well and to tailor the training to the specified learning objectives and audience. Organisers and/or partners of the training course are involved in defining the target audience, defining selection criteria and selecting participants. The responsible agency in charge of sending invitation letters will have to respect these decisions.

One Course Director and one course coordinator will be appointed to will ensure that appropriate planning and administrative arrangements are made and to assign roles and responsibilities to their training course assistants.

The following checklist for planning and administrative arrangements is only illustrative and should be reviewed, adapted and completed for each course. The checklist may not list the tasks in the exact order in which they will be conducted. Space has been left for additional reminders.

Initial Planning

1. ____ Location of training course selected. The location must be near a hospital with a SAM ward that meets the criteria on pages 1–5 of this guide. The location must also have adequate lodging and classroom facilities (see item #8 on this list).
2. ____ Time frame for giving the training course identified (during a time of year when the hospital will admit a sufficient number of children with SAM for clinical practice).
3. ____ Consultant or other assistance provided to hospital, if necessary, to ensure case management practices are consistent with the job aids,
4. ____ Course materials printed or obtained from the FMOH.
5. ____ Specific dates for the Facilitator Training and Case Management Training selected. As indicated on the schedules provided in **Annexes B and C**:
 - a. ____ 4 days (plus at least 1 day off) allowed for Facilitator Training.
 - b. ____ 7 calendar days allowed for the Case Management Training.
 - c. ____ Course Director and clinical instructor available 1–2 days before the Facilitator Training, and during all of the Facilitator Training and Case Management Training.
6. ____ Letters sent to the appropriate institutions and/or offices asking to identify appropriate physicians and senior nurses (and nutritionists) for the Facilitator Training and Case Management Training. Letter:
 - a. ____ Announces the *Training Course on Inpatient Management of Severe Acute Malnutrition* and explains the purpose of the training course.
 - b. ____ Clearly states the number of participants to attend the Facilitator Training (10 maximum), and that the participants should be physicians and senior nurses (and nutritionists) who are responsible for training

- and/or quality improvement (QI) of treating (and feeding) children with SAM in Inpatient Care.
- c. ____ Clearly states the number of participants to attend the Case Management Training (25–30 maximum), and that the participants should be physicians and senior nurses (and nutritionists) who are responsible for treating (and feeding) children with SAM in Inpatient Care.
 - d. ____ States that participants should plan to attend the entire Facilitator Training (4 days + 1 rest day) and/or the Case Management Training (7 days).
 - d. ____ States that participants who complete the Facilitator Training and Case Management Training will receive a certificate from the FMOH, WHO, UNICEF (other partners involved).
 - e. ____ Describes the location and dates of the training course.
 - f. ____ States the date by which participants for the Facilitator Training and Case Management Training should be nominated and the person to whom names should be sent.
 - g. ____ Clearly states required language and reading skills and stresses that the training course is challenging and requires hard work.
7. ____ Facilitators and clinical instructor selected and invited. Ensure that:
- a. ____ There will be at least 1 facilitator for every 4–5 participants expected to attend the training course.
 - b. ____ Facilitators will attend all of the Facilitator Training and Case Management Training.
 - c. ____ The clinical instructor is qualified and is available from 1 to 2 days before the Facilitator Training through the end of the Case Management Training.
(The clinical instructor must arrive early to assist with arrangements for clinical sessions. He/she should attend the Facilitator Training, if he/she has not done so before, to become familiar with the course materials and learn facilitation skills. He/she will lead one clinical session during the Facilitator Training.)
 - d. ____ Course materials are sent to the clinical instructor ahead of time so that he/she can prepare.
8. ____ Precise locations selected and reserved for classrooms and lodging. (To minimise transportation needs, classrooms should be within easy walking distance of the lodging and the hospital.) Selection based on availability of:
- a. ____ Adequate lodging for all participants.
 - b. ____ Accessibility to hospital.
 - c. ____ Convenient meal service.
 - d. ____ Large room for seating all participants and visitors to the training course.
 - e. ____ Laptop computer and digital projector (1 or more).
 - f. ____ Smaller room for each case management group of up to 12 people to work in, plus separate space for individual consultations.
During the Facilitator Training, only one large room will be needed. During the Case Management Training, one large room is needed at the start and the end and one room is needed for each facilitator group of participants (for a maximum of three case management groups).

- g. ____ Tables, chairs, adequate lighting and blackboard or poster stand for each of these rooms.
 - h. ____ Separate room for the secretariat.
9. ____ List compiled of physicians and senior nurses (and nutritionists) who will be invited to participate in the Facilitator Training and Case Management Training.
10. ____ Letters of invitation sent out to selected participants to the Facilitator Training and the Case Management Training. Letters:
- a. ____ For facilitators, briefly describe the purpose and organisation of the Facilitator Training and the Case Management Training.
 - b. ____ For clinicians (and/or nurses and nutritionists), briefly describe the purpose and organisation of the Case Management Training.
 - c. ____ State the desired arrival and departure times for participants and stress the importance of attending the entire Facilitator Training and/or Case Management Training.
 - d. ____ Describe arrangements for travel and payment of per diem.
11. ____ Arrangements made for a secretary to arrive at the training course location 3 days before Facilitator Training to ensure that the necessary administrative tasks are done. (See next section of this checklist for administrative tasks.) During the training course, the secretary will need to work with local staff to ensure that things go smoothly and that the facilitators' and case managers' work is not unduly interrupted. This person may also need to stay an extra day after the training course to pack up remaining materials and pay bills.
12. ____ Travel authorisations sent to facilitators, clinical instructor and participants.
13. ____ Training course completion certificates designed and adequate copies printed (to be signed and awarded to all participants: facilitators for the Facilitator Training and clinicians (and/or nurses and nutritionists) for the Case Management Training at the end of the training course).
14. ____ Arrangements made for providing adequate numbers of copies of the course materials, necessary supplies for classroom activities and supplies for clinical sessions. (Necessary materials and supplies are listed on pages 2–5 and pages 16–17 of this guide.)
15. ____ Arrangements made for sending/transporting necessary materials and supplies to the training course location.

The following sections provide advice on planning for the Facilitator Training followed by the Case Management Training. When the Case Management Training is followed by a Facilitator Training, or if the facilitator and case management trainings are conducted separately, the planning might need revision and adaptation to the context.

At the Course Location, before Facilitator Training Begins

Three days before Facilitator Training: Secretary arrives at the training course location early to take care of administrative arrangements described in this section of the checklist.

One to two days before Facilitator Training: Course Director and clinical instructor visit the hospital ward and discuss/confirm arrangements. (See item #25 on this checklist.)

16. ____ Adequate lodging arrangements confirmed for all facilitators and participants.
17. ____ Arrangements made for welcoming facilitators and participants at the airport and/or train station and hotel.
18. ____ Arrangements confirmed for rooms for conducting Facilitator Training:
 - a. ____ One room for conducting Facilitator Training (with characteristics listed in item #19b below).
 - b. ____ One room for the secretariat with space for storing modules, forms and other supplies, available during both the Facilitator Training and Case Management Training.
 - c. ____ One laptop computer.
 - d. ____ One digital projector.
 - e. ____ Area that can be used for preparing ReSoMal, F-75 and F-100.
19. ____ Arrangements confirmed for adequate rooms for conducting the Case Management Training:
 - a. ____ Large room available on the first and last day of the training course for seating all participants (facilitators, clinicians) and visitors.
 - b. ____ Smaller rooms available during the Case Management Training for each small group of participants, each room having:
 - ____ Sufficient table/desk area and chairs for up to 10 participants and 2 facilitators, plus separate consultation area with additional chairs.
 - ____ Additional table area for supplies.
 - ____ Black/white board with chalk/markers or flipchart stand with paper.
 - ____ Adequate lighting and ventilation.
 - ____ Freedom from distractions, such as traffic or construction noises or loud music.
 - c. ____ One laptop computer with CD-ROM drive.
 - d. ____ One digital projector. (Ideally, there would be one per group, but if this is not possible, equipment may be shared.)
 - e. ____ One room for a secretariat and the training course supplies.
 - f. ____ Area that can be used for preparing ReSoMal, F-75 and F-100. (Preferably, each classroom will have an area that can be used; if this is not possible, a kitchen area may be shared.)
20. ____ Arrangements made for registering participants for the Facilitator Training and Case Management Training.
 - a. ____ Registration form (see **Annex D**) reviewed and items added if needed.
 - b. ____ Registration form prepared.

21. ____ Arrangements made for typing and copying materials during the training course (for example, registration forms, schedules, list of participants, pre- and post-course test for the Case Management Training, end of training evaluations).
22. ____ Arrangements made for meals and coffee/tea service.
23. ____ Arrangements made for reconfirming or changing airline, train, bus and/or car reservations for participants.
24. ____ Arrangements made for paying per diem to participants.
25. ____ Hospital ward visited and confirmed to be suitable for clinical sessions. Directors and staff informed about the clinical sessions to be held during the Facilitator Training and Case Management Training. (See the *Clinical Instructor Guide* for more information about preparing for clinical sessions. Also see Part 2, Preparing for Clinical Sessions.)
 - a. ____ Clinical session schedule discussed and agreed on with hospital and ward director. (See Part 2, Section 3, Scheduling Clinical Sessions, on page 19.)
 - ____ During the Facilitator Training, one group for 2 hours on day 3.
 - ____ During the Case Management Training, ____ groups per day scheduled.
 - ____ Dates and schedules confirmed in writing.
 - b. ____ Drugs and supplies in the ward checked and supplemented as necessary. See list on pages 2–5.
 - c. ____ Role of ward staff during clinical sessions discussed with the hospital and the ward director.
26. ____ Schedule for the Facilitator Training prepared based on suggested schedule in **Annex B**.
27. ____ Arrangements made for daily transportation to and from hospital/classrooms.
28. ____ Sufficient copies made of registration forms, schedule for the Facilitator Training, copies of job aids for Inpatient Care, forms and checklists, etc. for use during Facilitator Training.

During the Facilitator Training

29. ____ Facilitators registered and given schedule and course materials for Facilitator Training.
30. ____ Plans for opening ceremony of the Case Management Training finalised with local authorities.
31. ____ Case Management Training schedule developed and reproduced in sufficient quantity to give a copy to each facilitator and participants. A suggested Case Management Training schedule is in **Annex C**.

32. ____ Clinical sessions schedule finalised and reproduced in sufficient quantity to give a copy to each participant. See **Annex A**.
33. ____ Pairs of facilitators assigned (near the end of the Facilitator Training) to work together during the Case Management Training. To the extent possible, consideration given to the following when making assignments:
- Fluency in language in which the Case Management Training is given and in the language spoken with mothers in the clinic.
 - Strengths (for example, clinical expertise, experience with case management procedures, understanding of Case Management Training content, capability as a classroom trainer or case management trainer).
 - Motivation to be a facilitator.
 - Personal dynamics/temperament (for example, shy paired with outgoing).
 - For nurses (and nutritionists) group facilitators, ability to communicate well with nurses (and nutritionists) and adapt materials according to suggestions in the *Facilitator Guide*.
34. ____ Course materials and supplies organised and placed in the appropriate rooms. See lists on pages 15–17 of this guide.

During the Case Management Training

35. ____ Case Management Training participants registered using registration form in **Annex D**.
36. ____ Case Management Training participants pre-course test conducted at the start of the Case Management Training, and post-test conducted at the end of the Case Management Training, with pre- and post-course results compared and communicated to the participants at the end of the Case Management Training. Results of pre- and post-course test summarised in the training course report.
37. ____ Groups of up to six participants assigned to pairs of facilitators. Group assignments posted following opening ceremony. (*Note: It is preferable to have physicians in separate groups from and nurses [and nutritionists].*)
38. ____ Copies of completed registration forms for participants in each group distributed to the facilitators for that group.
39. ____ Secretariat monitors or carries out administrative activities.
40. ____ Course directory (including names and addresses of all participants, facilitators, clinical instructor and Course Director) provided to everyone.
41. ____ If desired, photographs of course participants made in time to be developed before closing ceremony.
42. ____ End of training evaluations (**Annex H**) modified as needed and reproduced in sufficient quantity to give a copy to each facilitator and participant.

43. ____ Arrangements made for closing session.
44. ____ Training course completion certificate signed for presentation to each participant.

5. Criteria for Selecting a Clinical Instructor and Facilitators

A full-time clinical instructor is critical for conducting the Case Management Training. The clinical instructor is responsible for selection of cases and all clinical sessions done in the SAM ward. The clinical instructor's tasks are described in detail in the *Clinical Instructor Guide*.

A group of motivated and experienced facilitators is also needed. The facilitators will work in pairs with two to three small groups of Case Management Training participants to guide them through work on the modules and assist with clinical sessions. Two facilitators are needed for each small group of up to 10 Case Management Training participants. The facilitators' tasks are described in detail in the *Facilitator Guide*.

Criteria for Selecting a Clinical Instructor

1. The clinical instructor should be **currently active in clinical care** of children. If possible, he/she should have a current position on the SAM 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 **case management teaching skills**.
3. The clinical instructor should be very **familiar with the job aids and the CMAM Manual** and have experience using it. It is best if he/she has **participated in the Training Course on Inpatient Management of Severe Acute Malnutrition** previously as a participant or facilitator. He/she should at least be familiar with and use the practices summarized in the job aids and described in the CMAM Manual.
4. He/she should be **clinically confident**, to be able to sort through a ward of children quickly, identify clinical signs that participants need to observe and determine the progress of different children and their care. He/she should understand the daily procedures in the ward and quickly see where participants may assist with care. He/she should understand each child's clinical diagnosis and prognosis so as not to compromise the care of critically ill children. He/she should be comfortable handling children with SAM and **convey a gentle, positive, hands-on approach**.
5. He/she must have **good organisational skills**. To accomplish all of the tasks in each clinical session it is necessary to be efficient. The individual must be able to stay on the subject, avoiding any extraneous instruction or discussion. He/she must be able to keep a view of the ward and all the participants, and keep all participants involved and learning productively. Teaching three groups of participants requires 4.5–6 hours, and these are very active periods. He/she must be energetic.

6. The individual must be **outgoing and able to communicate** with ward staff, participants and mothers. She 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 individual should work as an assistant to a clinical instructor at another Case Management Training to see how to select cases, organise the clinical sessions and interact with participants. Or another skilled clinical instructor can join him/her during the first few days of the Facilitator Training and/or Case Management Training.
8. The clinical instructor must be available 1–2 days prior to the Facilitator Training, during all of Facilitator Training and during the entire Case Management Training. He/she must be willing and motivated to get up early each morning to review cases in the SAM ward and prepare for the day's clinical sessions.

Criteria for Selecting Facilitators

Note: Facilitators may have different strengths and weaknesses. If a facilitator is weak in one of the following areas, it is important to pair him/her with another facilitator who is strong in that area.

1. Facilitators should be **currently active in care of children with SAM**. They must have the **basic clinical skills and technical knowledge** that will allow them to teach the case management process used in this Case Management Training.
2. (*This criterion should be applied after a number of Case Management Training sessions have been given.*) They must recently have **been participants in the Training Course on Inpatient Management of Severe Acute Malnutrition**.
3. They must have **good communication skills**, including the ability to explain things clearly and simply to others. Facilitators in the Case Management Training are not expected to give lectures, but to guide participants through written materials, role-play exercises, discussions, etc. It is most important that facilitators be observant individuals who can see when participants are having difficulty, explain things clearly and give helpful feedback.
4. If participants speak a **language** other than the language in which the Case Management Training is written, it is helpful for at least one facilitator per group to speak that language.
5. They must be **organised**. They must be able to keep the group on schedule and ensure that they arrive for clinical sessions on time and with the necessary supplies.
6. If there will be a small group of nurses (and/or nutritionists) at the Case Management Training, it is important to select **at least two facilitators who can relate well to nurses (and nutritionists) and can teach clearly, patiently and creatively**. It is advisable that one of the facilitators is a clinician. These facilitators will be expected to adapt some of the activities in the Case Management Training according to suggestions in the

Facilitator Guide, for example, by omitting certain parts of exercises, spending more time on specific sessions as required, or by adding examples or demonstrations.

7. Facilitators must be **available during the entire Case Management Training**. They must have the **energy and motivation** to work a long day with Case Management Training participants and then attend a facilitator meeting in the evening to review the day's work and prepare for the next day.

Note: In any Case Management Training, facilitators may identify participants who would eventually make good facilitators themselves. These individuals will then qualify to participate in an upcoming Facilitator Training. Ask facilitators to point out participants who:

- Understand the modules easily
- Perform well in the clinical sessions
- Communicate clearly
- Help others and work well with others in their group
- Participate confidently in discussions and role-plays

Certainly not all trainees who graduate successfully from a Case Management Training will be potential facilitator trainees, or will become facilitators. It is better to have a smaller but experienced and motivated group of facilitators than to have an expanded team of weak facilitators, which would risk decreasing the quality of trainings and care.

6. Checklist of Instructional Training Course Materials Needed

Item needed	Number needed
<i>Course Director Guide</i>	1 each for the Course Director, the clinical instructor, and all facilitators
<i>Clinical Instructor Guide</i>	1 each for the Course Director, the clinical instructor, and all facilitators
<i>Facilitator Guide</i>	1 each for the Course Director, the clinical instructor, and all facilitators
CMAM Manual	1 for all (if possible)
Operational Guide for Inpatient Care	1 for all
Set of seven training modules	1 set for all
Photographs booklet	1 for all
Set of laminated Job Aids for Inpatient Care	1 set for all
Set of forms used in Inpatient Care	1 set for all, plus a few extras
Set of checklists used in Inpatient Care	1 set for all
Set of wall charts used in Inpatient Care	1 set for all (or 1 set for each small group)
Inpatient Management Record	3 for all, plus a few extras
Inpatient Management Record, enlarged format	1 set for each small group
Extra copies of Inpatient Management Record, loose (for use in exercises)	4 for all, plus a few extras
Extra copies of Daily Care page of Inpatient Management Record, loose (for use in exercises)	3 for all, plus a few extras
Extra copies of Monitoring, Problem Solving and Reporting page of Inpatient Management Record, loose (for use in exercises)	2 for all, plus a few extras
Video films	1 set for all
Slide presentation for the Facilitator Training	1 for the Course Director
Slide presentation for CMAM Orientation	1 set for all
Support reading (Includes United Nations Joint Statements on SAM 2007 and 2009)	1 set of soft copies on CD Rom/Flash drive for all
Laptop computer with CD-ROM drive and digital projector	1 set for the group (or 1 set for each small group)
Schedule for the Facilitator Training	1 for all
Schedule for the Case Management Training	1 for all
Schedule for clinical sessions	1 for all
Pre- and post-course test for the Case Management Training	2 for all
Facilitator Practice Assignment Grid	1 for all facilitators
End of training evaluation	1 for all in the Facilitator Training and Case Management Training
Registration form	1 for all
CD-ROM or flash drives for sharing soft copies of all course materials	1 for all

6. List of Other Supplies Needed

Supplies Needed for Each Person

- Name tag and holder
- 2 pens
- 2 pencils with erasers
- Paper
- Highlighter
- Folder or large envelope to collect answer sheets
- Calculator (on personal mobile phones)

Supplies Needed for Each Small Group

- Paper clips
- Pencil sharpener
- Stapler and staples
- Scissors
- 1 roll masking tape
- Extra pencils and erasers
- Flipchart pad and markers *OR* blackboard and chalk
- Laptop computer and digital projector (if possible)

In addition, certain exercises require special supplies. Supplies for demonstrations, role-plays and group activities for **each small group** include:

- Ingredients and supplies for preparing ReSoMal

If using	Ingredients	Supplies
Commercial ReSoMal	ReSoMal packet Cooled boiled water (at least 1 L for a 1 L packet)	Mixing spoon Container to hold 1 or 2 L Measuring cup or medicine cup with ml markings, or 50 ml syringe Small cups or spoons for tasting
ReSoMal made from standard ORS	1-litre standard ORS packet Sugar (at least 50 g) CMV (1 level scoop) Cooled boiled water (at least 2 L)	Same as above, plus: Container to hold > 2 L Dietary scale that weighs to 5 g*
ReSoMal made from low-osmolarity ORS	1-litre low-osmolarity ORS packet Sugar (at least 40g) CMV (1 level scoop) Cooled boiled water (at least 1.7 L)	Same as above, plus: Container to hold > 2L Dietary scale that weighs to 5 g*

* Scale could be shared by groups.

- Copies of recipes for F-75 and F-100 used in the hospital, and packets of RUTF. If these are not suitable, you may use generic recipes for F-75 and F-100 given in **Module 4, Feeding**.

- All ingredients, containers, utensils and other supplies needed to prepare recipes for F-75 and F-100. (Equipment such as a blender or hot plate for cooking may be needed. If necessary, some of the supplies may be shared by all of the groups in a specified kitchen area.)
- Props for role-plays: a baby doll with clothes, a basin for bathing, a towel, a cup and saucer for feeding. (Creative substitutions are allowed.)

Supplies to be Shared by Groups

Near the classrooms, all groups need access to the following equipment and supplies, to be shared by the groups:

- Photocopy machine
- Laptop computer and digital projector, preferably in a separate room that groups can easily go to
- (If sharing these items) hot plate, blender, dietary scale as needed for recipes
- Electrical outlets, extension cords if needed

Additional Supplies Needed for Clinical Sessions

Participants will bring their set of job aids for Inpatient Care to clinical sessions. The following additional instructional supplies will be needed. Enough supplies are listed here for a Case Management Training with 25–30 participants. In addition, the facilitators will need these supplies for clinical sessions during Facilitator Training.

- 100 copies of the Initial Management page of the Inpatient Management Record plus 60 complete Inpatient Management Records for a Case Management Training with 25–30 participants
- 24-Hour Food Intake Charts (100 copies for a course with 25–30 participants); copy from **Module 4, Feeding, Annex D**
- Pens and pencils
- 6–8 clipboards and string or tape to fasten clipboards to foot or head of bed
- Thermometers
- A few watches (some participants may have their own)
- Dextrostix, blood samples, gloves for every participant
- Mid-upper arm circumference (MUAC) tapes, scales and length/height board, for measuring infants and children
- Soap for hand-washing, and a supply of clean cloth towels that can be washed or a supply of paper towels (participants must wash hands before and after clinical sessions and between patient visits)
- If lab coats must be worn in the hospital, there should be one for each participant and facilitator, and these should be laundered as needed. To limit risk of transmitting infections, lab coats should not be shared.

Part 2: Preparing for Clinical Sessions

1. Preparing the Clinical Instructor

A clinical instructor who meets the criteria specified in Part 1, Section 4, Criteria for Selecting a clinical instructor and facilitators, will not require extensive training. However, he/she must learn the content of the training course and adapt to the methods presented in the *Clinical Instructor Guide*. For some clinical instructors, this is a major change in how they normally teach or conduct rounds.

As the Course Director, you supervise the clinical instructor. Preparation of the clinical instructor should include the following steps:

- Send all of the course materials to the clinical instructor well in advance of the training course.
- The clinical instructor should study all of the course materials, focusing especially on the *Clinical Instructor Guide*. (Note: Explain to the clinical instructor that selected activities will be conducted during the third day of the Facilitator Training. Suggested activities are proposed on pages 8–9 of the *Clinical Instructor Guide*. All clinical sessions will be conducted during the actual Case Management Training.)
- The clinical instructor should discuss his/her responsibilities and any questions with you, so that you both understand and agree on what he/she will do.
- Prior to the Facilitator Training, the clinical instructor should visit the ward with the Course Director, as described in the next section.
- The clinical instructor should attend as much of Facilitator Training as possible to learn the content of the Case Management Training and how it is structured.
- **On the third day of Facilitator Training**, he/she should go early to work with the clinical assistant and translator, if needed, to prepare for selected activities. He/she will then practise these activities with the facilitators as ‘participants’.
- Refer to the *Clinical Instructor Guide* for details on how the instructor should prepare himself/herself and the ward. Help the instructor ensure that everything is ready and make arrangements for any remaining items.

2. Visiting the Ward to Finalise Arrangements

Prior to the Facilitator Training, visit the hospital where clinical sessions will be conducted to meet the ward director and staff and to discuss and confirm final arrangements. The clinical instructor should be present at this visit.

1. Briefly describe to the ward director the objectives of the Case Management Training, the importance of clinical sessions in the Case Management Training and the kinds of clinical signs and case management practices that participants will need to observe.
2. Tour the areas where children with SAM may be seen in the hospital (this may include more than one ward):
 - Observe where children arrive, when they typically arrive and where they are directed. (During one clinical session, participants will observe children in the admissions area or in the ward to identify those with SAM.)
 - Observe the emergency treatment area.
 - See the kitchen area and observe as F-75 and F-100 are prepared, if possible.

- Observe how children are fed and how drugs are administered.
 - In all areas, see what supplies and equipment are available. (Circle items from the list on pages 2–5 of this guide that are not available in the ward or facility. Obtain these items before beginning the training course.)
3. Discuss the schedule for clinical sessions during the Facilitator Training and Case Management Training. (Scheduling clinical sessions is described in Section 3 below and on pages 8–10 in the *Clinical Instructor Guide*.) During Facilitator Training, there will be a 2-hour clinical session on the third day. (Also, if desired and if there is time on the first day of the Facilitator Training, there may be a brief tour of the ward.) During the Case Management Training, several small groups will visit the ward at different times each day.

Determine if there are certain times that are best for clinical sessions or certain times that are not appropriate.

Ask whether teaching sessions are conducted with parents on the ward and, if so, when they are conducted. Ask about play sessions as well. Explain that you would like participants to observe these sessions if possible.

Agree on the schedule with the ward director. As soon as possible after the visit, confirm the schedule in writing.

4. Plan with the person responsible for the SAM ward what role the ward staff will play during the participants' clinical sessions.

If possible, arrange for a clinical assistant (a regular staff member, such as a nurse) to assist with clinical sessions. This staff member would help identify suitable children. If necessary, arrange for a translator as well.

5. Determine what participants will be allowed to do in the ward. It is expected that they will be allowed to feed children; monitor children's respirations, pulse and temperature; and assist with various activities, such as weighing, measuring and bathing (all with supervision).
6. Brief ward staff so that they understand what to expect during the clinical sessions (e.g., how many people will come, what they will be doing and learning). During some sessions, participants will observe and assist staff as they feed and give daily care to children in the ward. Get ideas from staff on the best ways to do this. Encourage their cooperation and thank them for their help.

3. Scheduling Clinical Sessions

One clinical session must be scheduled during Facilitator Training, preferably for about 2 hours on the third day. This session will allow the clinical instructor to practise some of the activities planned for the Case Management Training. It will allow the facilitators to become familiar with what will happen during a clinical session.

During the Case Management Training, each small group will visit the ward once each day. Visits will be from 1 to 2 hours in length. Scheduling is discussed in detail in the *Clinical Instructor Guide*, pages 8–10. **Annex A** contains a blank form to use in figuring out the schedule for clinical sessions during the Case Management Training. Plan the schedule with the clinical instructor and the person responsible for the ward and/or hospital director. Make a copy for each participant.

Example

Below is an example of a schedule for clinical sessions in a Case Management Training in which there are three small groups (groups A, B, C). Notice that groups visit the ward at different times each day to ensure that they observe different parts of the daily routine. Remember that your schedule may be very different, depending on the number of groups, the ward schedule, etc.

Clinical Session	Group A	Group B	Group C
Day 1 Tour of Ward 1 hour	11:00 – 12:00	13:00 – 14:00	14:15 – 15:15
Day 2 Clinical Signs and Anthropometric Measurements 1.5 hours	9:00 – 10:30	10:45 – 12:15	13:30 – 15:00
Day 3 Initial Management 1.5 hours	13:30 – 15:00	9:00 – 10:30	10:45 – 12:15
Day 4 Flexible half-day, optional clinical session	All groups will observe play session at 10:00		
Day 5 Initial Management and Feeding 2 hours	10:45 – 12:45 (11:00 feed)	13:30 – 15:30 (15:00 feed)	8:30 – 10:30 (9:00 feed)
Day 6 Feeding 1.5 hours	8:30 – 10:00 (9:00 feed)	10:15 – 11:45 (11:00 feed)	12:45 – 14:15 (13:00 feed)
Day 7 Daily Care and Monitoring Quality Care 2 hours	13:00 – 15:00	9:00 – 11:00	10:45 – 12:45
Observe health and nutrition education session (and cooking sessions) for mothers	Day 7 at 14:00	Day 5 at 14:00	Day 6 at 14:00
Observe play session	Day 4 at 10:00	Day 4 at 10:00	Day 4 at 10:00

Part 3: Training Facilitators

Eventually facilitators should be prepared in three phases described below. However, for the first training course, a high-quality, 4-day Facilitator Training session will have to suffice.

Preparing a facilitator for this training course occurs in three phases:

1. The individual attends the Case Management Training as a participant to learn the training course content and develop skills in managing children with SAM according to the job aids and the CMAM Manual.
2. The individual attends a 4-day Facilitator Training (usually immediately prior to a course in which he/she will serve as a novice facilitator).
3. He/she has a first experience as a facilitator in either the Facilitator Training or the Case Management Training, paired with an experienced facilitator and closely supervised by the Course Director.

After successful completion of this process, an individual is considered fully prepared to serve as a facilitator in the *Training Course on Inpatient Management of Severe Acute Malnutrition*. The qualified facilitator, along with a co-facilitator (facilitators always work in pairs, and at least one of them is a clinician) and a clinical instructor, will be able to repeat the Case Management Training for a maximum of 10 participants (clinicians, nurses and/or nutritionists).

This part of the guide describes in detail how to conduct the 4-day Facilitator Training session mentioned above.

1. General Structure of the Facilitator Training Session

The 4-day Facilitator Training session occurs before the Case Management Training. As Course Director, you are responsible for conducting Facilitator Training. If possible, you should be assisted by a co-director or an experienced facilitator. As the training is intensive, it is very helpful to have two people work together. By working together, you can demonstrate how co-facilitators share the work during the actual Case Management Training.

Facilitator training is extremely important, and all new facilitators should attend. A maximum of 10 facilitators may be trained during a session. Well-trained and supportive facilitators are necessary for the success of the course.

Even if facilitators are familiar with the course content and are experienced in the management of children with SAM, they need the Facilitator Training to learn **how to teach** the Case Management Training.

Facilitator trainees work quickly through the modules and take turns practising the teaching activities described in the *Facilitator Guide*. A clinical instructor organises and supervises clinical sessions during this Case Management Training, so facilitators assist

rather than direct these sessions. During the Facilitator Training, facilitators attend one clinical session to become familiar with the SAM ward and how the Case Management Training will work.

Three methods are used to demonstrate and practise teaching activities:

1. You (the Course Director) act as a facilitator. Facilitator trainees observe appropriate behaviours as you introduce a module, provide individual feedback, do a demonstration, conduct a video exercise, lead a group discussion, co-ordinate a role-play, lead an oral drill, etc.
2. A facilitator trainee acts as a facilitator speaking to a group of participants. The facilitator trainee is practising teaching activities when introducing a module, doing a demonstration, conducting a video exercise, leading a group discussion, co-ordinating a role-play, leading an oral drill or summarising a module. While practising, the facilitator trainee is also demonstrating these teaching activities for the others in the group.
3. A facilitator trainee acts as a Case Management Training participant and another as a facilitator providing individual feedback. Both sit in front of the room positioned as a facilitator and participant would be. The facilitator trainee is both practising and demonstrating individual feedback. He/she asks questions to ensure that the ‘participant’ understands the exercise, discusses how the concept is applicable in real situations and mentions all the major points specified in the *Facilitator Guide*.

Note: Situating these two individuals apart from the rest of the group is important because it clearly shows that giving individual feedback is different from leading a group discussion. In the past, individuals have not understood the individual feedback procedure until they have observed and participated in it. If facilitator trainees are told that feedback is to be given individually, but they never practice it or see it done, they are not likely to provide it during the Case Management Training.

2. Daily Schedule

The 4-day Facilitator Training schedule focuses on teaching skills to be used in the classroom. Most of the time will be spent in the classroom reviewing the modules, learning techniques for teaching modules and practising those techniques. During the third day, there will be a 2-hour clinical session led by the clinical instructor. The final half-day is used to finish work on the modules and to set up the classrooms for the Case Management Training.

A suggested schedule for the Facilitator Training is provided in **Annex B**. A suggested schedule for the Case Management Training is provided in **Annex C**. These schedules can be used to make more precise schedules, including specific dates and times, once you know the times for clinical sessions; transport to clinical sessions; and the arrangements for lunch, tea breaks, etc.

The schedule for the Facilitator Training is highly compressed and will require efficient and concentrated work. Facilitator trainees will review in only 4 days what they will teach to Case Management Training participants in 7 days. In the Facilitator Training, modules will be

reviewed very quickly; it may be necessary to do some independent work on exercises at night. The focus in the classroom will be on learning to give feedback for those exercises.

From time to time, you will need to remind facilitator trainees that the Case Management Training will **not** be conducted the way that the Facilitator Training is conducted. During the Case Management Training, participants will read a section of the module, do an exercise, receive feedback, etc., as described in the *Facilitator Guide*. Participants will attend a clinical session on every day of the Case Management Training. Refer to the *Facilitator Guide* and the Case Management Training schedule frequently, so that everyone understands how the Case Management Training will differ.

3. Practice of Facilitator Techniques

At appropriate points during the Facilitator Training, you will introduce the following facilitator techniques:

- Working with a co-facilitator
- Introducing a module
- Giving individual feedback
- Conducting a demonstration
- Leading a discussion
- Conducting a video activity
- Co-ordinating a role-play
- Leading an oral drill
- Adapting teaching methods for nurses (and nutritionists) groups
- Summarising a module

Once a technique has been introduced, you will assign facilitator trainees to practise the technique in front of the group. For some teaching activities, it is suggested that two facilitator trainees practise together, acting as co-facilitators. This will allow them to practise working in pairs, as they will in the Case Management Training. After every activity, it is useful and important to discuss the facilitator trainees' performance and give feedback.

By the end of the training, every facilitator trainee should have practised all facilitator techniques. A Facilitator Practice Assignment Grid is provided in **Annex E** to help you ensure that each trainee has adequate practice. Turn to this grid and list the names of the facilitator trainees. Whenever someone practises a technique, make an entry on this grid.

4. Using This Guide to Conduct the Facilitator Training

We assume that you are already familiar with the Case Management Training and have experience as a facilitator in this Case Management Training or similar courses. To prepare to teach others to be facilitators, read this guide, and reread and study the *Facilitator Guide*.

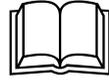
When conducting the Facilitator Training, keep available the schedule in **Annex B** for an overview of the steps to be accomplished each day.

This guide gives instructions, day by day and step by step, for conducting the Facilitator Training. Just turn to the appropriate part and the appropriate day, and follow the instructions.

Some instructions tell you to go to the *Facilitator Guide* and do certain steps described there. When you do that, leave the *Course Director Guide* open to keep your place. When you have finished the steps in the other guide, look back to the *Course Director Guide* to find out what to do next. (You will end up with several books open at the same time. Therefore, it is a good idea to have a large area for yourself at the table so that you can arrange your guides and modules in front of you as you lead the training.)



Course Director Guide



Facilitator Guide



Module

Facilitator Day 1

Opening Session

*Examples of slides to accompany this opening session are provided in **Annex J** of this guide. The slides may be used in a slide presentation, and are provided with your course materials.*

A. Introductions

Introduce yourself as the Course Director and write your name in large letters on a blackboard or flipchart. Ask the facilitator trainees to introduce themselves and write their names under yours on the flipchart. You may want to ask them to give a little background or other relevant information about themselves.

B. Administrative Tasks

Make any necessary announcements regarding meals, transportation, payments, hotel regulations, etc.

C. Review of Purpose of the Training Course (Annex J, Slide 2)

This training course will eventually be used in hospitals in many countries. The purpose is to teach the case management process summarized in the job aids and described in the CMAM Manual. The content of the Case Management Training is consistent with those. In certain hospitals that have used these case management procedures over time, case fatality has been reduced from more than 30% to less than 5%.

The Case Management Training is intended for physicians and senior nurses (and nutritionists) in hospitals that have SAM wards or plan to start such wards. It is expected that participants will return to their hospitals and make changes to improve case management.

Introduction to the Facilitator Training

A. Context of the Facilitator Training (Annex J, Slide 3)

Cover the following points:

- There will be (number) participants attending the *Training Course on Inpatient Management of Severe Acute Malnutrition*, (dates).
- The participants will be physicians and senior nurses (and nutritionists) who manage children with SAM in hospitals.
- All (number) of you are being trained to serve as facilitators to assist participants in learning the skills presented in the course materials. These 4 days are your time to work through the materials and prepare to teach others.
- As facilitators, you will work in pairs to teach the course. Each pair will be assigned a group of about (number) participants. Pairs for the course will be assigned later. During the Facilitator Training, each of you will work with a variety of other participants.

B. Course Materials Needed (Annex J, Slide 4)

Give each facilitator the following materials. (Other materials, such as the video, will be provided later as needed.) Mention that participants will be given modules **one at a time**, but that you are giving facilitators the modules **all at once** so that they may work ahead.

- CMAM Manual
- Photographs booklet
- Set of seven Training Modules
- Facilitator Guide
- Set of Job Aids for Inpatient Care
- Set of Forms and Checklists

C. Objectives of the Facilitator Training (Annex J, Slide 5)

Cover the following points:

- Learn the Case Management Training content.
- Practise the teaching techniques used with the modules (for example, giving individual feedback, leading group discussions, leading oral drills).
- Become familiar with the SAM ward and how clinical sessions will be conducted.
- Learn ways to work effectively with a co-facilitator.
- Practise communicating in supportive ways that reinforce learning.
- Discuss problems that may be faced during the Case Management Training (for example, slower readers, logistical difficulties in the ward, sections of a module that may be difficult to teach) and prepare to handle these difficulties.

Facilitator training is far more than learning the content of the course materials. It is training in teaching techniques.

D. Teaching Methods (Annex J, Slide 6)

Explain that teaching methods of the Case Management Training are based on several assumptions about learning.

1. Instruction should be performance-based.

Instruction should teach the student tasks he/she will be expected to do on the job. This Case Management Training is developed based on an analysis of tasks involved in the management of SAM. Each module teaches the knowledge and skills needed to perform some of these tasks. At the beginning of each module is a list of learning objectives describing the tasks taught in that respective module.

2. Active participation increases learning.

Participants learn far more quickly and effectively by actually doing a task than by just reading or hearing about it. Practice helps participants remember more and keeps them interested and more alert. This Case Management Training actively involves the participants in doing written exercises and participating in group discussions, drills, role-plays and, importantly, clinical sessions.

3. *Immediate feedback increases learning.*

Feedback is information given to a participant on how well he/she is doing. If a participant does well on an exercise, and is reinforced immediately, he/she is more likely to retain what he/she has learnt. Immediate feedback also allows misunderstandings to be corrected before they become strong beliefs, or before the student becomes further confused. In this Case Management Training, the facilitators give immediate feedback on each exercise, tailored to each participant's needs. Feedback is provided through group discussion or individual consultation.

4. *Learning is increased when instruction is individualised.*

Participants attending this Case Management Training will learn at different speeds and in different ways. For maximum learning to occur, the instruction must be flexible enough to allow each participant to proceed at a pace that is comfortable for him or her. Each participant should ask questions and receive explanations to the extent necessary for him or her to understand and acquire the skill and knowledge. This Case Management Training is structured so that the participants are able to do the exercises at a comfortable pace and then discuss any problems or questions with a facilitator.

5. *Positive motivation is essential if learning is to take place.*

Participants must want to learn for instruction to be effective. Most of the time, participants come to a course highly motivated. Facilitators help the participants maintain this motivation by providing individual attention, giving prompt feedback, **showing appreciation for their work on the exercises**, ensuring that they understand each exercise and encouraging them to participate in group activities and clinical sessions.

E. Schedule for the Facilitator Training (Annex J, Slide 7)

Distribute a written schedule for the Facilitator Training based on the one in **Annex B**. Explain that this 4-day schedule is very much condensed from the full 7-day Case Management Training. Give facilitator trainees a copy of the Case Management Training schedule as well, so that they can compare the activities and pace of the actual course with those of the Facilitator Training.

Explain that facilitator trainees will move very quickly through the modules and will focus mainly on teaching techniques. They will have one clinical session led by the clinical instructor.

F. Introduction of the *Facilitator Guide* (Annex J, Slides 8 and 9)

Facilitator trainees will learn to use the *Facilitator Guide* during the 4-day Facilitator Training.

1. Ask facilitator trainees to read the 'Introduction' on pages 1–4 of the *Facilitator Guide*, a description of the roles and responsibilities of a facilitator.

2. Answer any questions about the ‘Introduction’. Then briefly summarise the major duties of a facilitator (**Annex J, Slide 8**):
 - Introduce the modules
 - Answer questions and assist facilitator trainees while they work
 - Provide individual feedback on completed exercises
 - Conduct demonstrations and give explanations of certain steps
 - Conduct oral drills
 - Lead and summarise video exercises and group discussions
 - Co-ordinate role-plays
 - Summarise the modules
 - Assist with clinical sessions as requested by the clinical instructor

Be clear that facilitators are not in charge of ward visits; they are there to assist, and also to observe so that they can discuss what was seen back in the classroom.

3. (**Annex J, Slide 9**) Urge facilitator trainees to follow procedures in the *Facilitator Guide* and make the points specified. Review the following parts of the *Facilitator Guide*:
 - Checklists of instructional materials and supplies needed (pages 5–6)
 - Procedures table for each module
 - Notes for each step of the procedures
 - Shaded boxes with special notes for nurses (and nutritionists) groups
 - Blank boxes (at the end of each module section) for additional points
 - The ‘Facilitator Guidelines for All Modules’ section at the end of the *Facilitator Guide* (pages 74–79)
4. Point out that answers to the exercises are at the back of each module.

You may want to write the message ‘Remember to use your *Facilitator Guide*’ on a flipchart page and leave the message visible throughout the training.

Encourage facilitator trainees to write notes in their guides about important points to make during the Case Management Training.

Module 1: Introduction

A. Provide an Orientation Session on CMAM

Provide an orientation on CMAM and/or present the slide presentation and respond to questions. Discuss briefly the strategy of CMAM integration and scale-up in Sudan. (See the slide presentation in **Annex J**.)

B. Review and Demonstration

Ask facilitator trainees to open the *Facilitator Guide* to page 7. Point out the procedures table and the corresponding notes. Ask the group to follow along as you use the notes to lead them through **Module 1, Introduction**.

Follow the procedures closely, but save time by asking facilitator trainees to quickly review the contents of the module rather than reading carefully. Since facilitator trainees have already introduced themselves, simply mention this step rather than doing it.

If you have an assistant, turn to your assistant for help in remembering to include all of the relevant points. For example, ask him/her aloud, 'Have I forgotten anything?' In this way, you will demonstrate one way to work together as co-facilitators.

When you have finished, tell the group that you have just demonstrated how to follow the procedures for **Module 1, Introduction**. Answer any questions about how to use the *Facilitator Guide*.

C. Facilitator Techniques: Working with a Co-Facilitator

Explain that there are several ways that co-facilitators can help each other and work as a team. For example, while one facilitator is leading a discussion, introducing a module or doing a demonstration, the other facilitator can:

- record information on the flipchart
- prepare to view the video
- follow along in the *Facilitator Guide* to ensure that no important points are omitted, and politely add certain points if necessary

When first assigned to work together, co-facilitators should take time to talk about prior teaching experiences and individual strengths and weaknesses. They should agree on roles and responsibilities and how to work together as a team.

Suggestions for working together as co-facilitators:

1. Discuss in advance how you will work together on exercises and other activities. Review the teaching activities for the next day and agree on who will prepare for each demonstration, lead the drill, play each role, collect supplies, etc. However, do not divide your work with a feeling that 'this is your piece and this is mine'. Be flexible and ready to adjust roles if needed.
2. Work together on each module rather than taking turns having sole responsibility for an entire module. Within a module or clinical session, you will sometimes be the leader and at other times the helper, writing on the flipchart, stopping and starting the video, etc.
3. When you lead a discussion, always try to ask the opinion of your co-facilitator. For example, ask 'Dr. King, do you have something to add?' or 'Would you agree with this explanation?'
4. When you are assisting, be respectful and polite. Give your co-facilitator your full attention. If you need to add information, wait until a suitable point in the presentation. Then politely ask, 'Do you mind if I add something here?' Or say, 'Excuse me, there is one more point I would like to mention'.
5. If you think that your co-facilitator is doing a demonstration incorrectly, or giving incorrect information, avoid directly contradicting him/her in front of the group. It may be possible to say, 'Excuse me, but may I clarify that?' If the situation is more complicated,

quickly excuse yourselves, discuss the error privately and decide how to clarify the explanation or demonstration to the group. The group must be given correct information as soon as possible. If there is a serious disagreement between you and your co-facilitator, you may need to seek help from the Course Director.

During the Facilitator Training, pairs of facilitator trainees will practise working together on demonstrations, video exercises, group discussions and other exercises. When given an assignment, each pair should discuss in advance how to work together.

Module 2: Principles of Care

Facilitator trainees will now begin **Module 2, Principles of Care**. During the Facilitator Training, facilitators must work quickly. In contrast, in the Case Management Training, facilitators should not rush participants through the materials, but should allow them to proceed at a comfortable pace. Homework is not recommended during the Case Management Training, as participants will be tired in the evenings.

A. Facilitator Techniques: Introducing a Module

Demonstrate introducing the module as described on [page 10](#) in the *Facilitator Guide*. Ask facilitator trainees to notice the instructions for introducing the module as you speak. Tell them that from now on you will ask them to introduce each module. Tell them to keep introductions brief (just a few remarks). They should not lecture on the content of the module, but should cover the points in the *Facilitator Guide*.

B. Reading and Work on Module

Ask facilitator trainees to quickly read the module from the beginning through [page 7](#) and do Exercise A using the *Photographs* booklet. Suggest that facilitator trainees highlight points in the module where the facilitator intervenes. For example, highlight the places where individual feedback is given or where a discussion is held. It will be helpful to highlight all of the modules in this manner.

C. Facilitator Techniques: Leading a Discussion

Point out that Exercise A involves individual work prior to a group discussion. Most discussions in this Case Management Training require some individual work first, so that facilitator trainees can organise their thoughts and prepare to share their ideas.

Point out the shaded box for nurses (and nutritionists) groups on [page 11](#) of the *Facilitator Guide*. Because this is the first exercise in the Case Management Training, and nurses (and nutritionists) may be unsure what is expected of them, this box suggests that several photos be discussed as a group before the nurses (and nutritionists) are asked to work individually. Explain that you will lead the discussion as though the group includes physicians rather than nurses (and nutritionists). Acting as a facilitator, demonstrate how to lead the group discussion in Exercise A, being careful to use good facilitator techniques and follow the steps in the *Facilitator Guide*.

Ask facilitator trainees to look at ‘When leading a group discussion’ on pages 78–79 of the *Facilitator Guide*. Review the points in that section. These pages give general guidelines for leading a discussion. Explain that from now on facilitator trainees will practise leading the group discussions.

D. Reading and Work on Module

Ask facilitator trainees to read pages 10–19 of the module and then do Exercise B using the *Weight-for-Height/Length Look-Up Table Job Aid*.

E. Facilitator Techniques: Adapting for Nurses (and Nutritionists) Groups

Explain that some participants may need a demonstration of how to use the *Weight-for-Height/Length Look-Up Table* before they attempt Exercise B. Facilitators will quickly see how much assistance a group needs. It is important to give enough explanation that facilitator trainees do not become frustrated by a lack of understanding. However, too much explanation can be boring and can be seen as condescending.

Acting as a facilitator, demonstrate how to use the *Weight-for-Height/Length Look-Up Table*. Use the notes in the shaded box on page 14 of the *Facilitator Guide*.

After the demonstration, ask the facilitator trainees if they would have found the demonstration helpful before doing Exercise B. Remind facilitator trainees that they will come from a variety of backgrounds. Facilitators will need to be sensitive to the strengths and weaknesses of facilitator trainees in their groups. If a group is likely to need extra help with a concept, facilitators should use the shaded boxes to give additional explanations or demonstrations. If the group seems able to understand the reading and do the exercises independently, then facilitators should not interrupt their work with unnecessary explanations.

Since it takes time with participants to do some additional demonstrations, it is necessary to omit parts of some exercises to make up the time. The shaded boxes suggest which exercises may be shortened.

F. Facilitator Techniques: Individual Feedback

Referring to the procedures table on page 10 of the *Facilitator Guide*, point out that Exercise B requires individual feedback, as indicated in the ‘Feedback’ column of the table. Point out the related guidelines on pages 14–15 of the *Facilitator Guide* and the ‘Answers to Exercises’ at the end of Module 2.

Explain that individual feedback is done by one facilitator talking to one participant privately. Each facilitator may set up a place in a separate area where participants can come to them for individual feedback.

Ask for a volunteer to act as a participant who has just completed Exercise B. The participant will present his/her answers as written in the module. (He/she may wish to make up a wrong answer or two.) You will act as the facilitator, modelling the technique of giving **individual**

feedback. Sit face to face with the participant in the front of the room and speak clearly so that everyone can ‘overhear’.

After modelling individual feedback, ask facilitator trainees to look at page 78, ‘When providing individual feedback’, of the *Facilitator Guide*. It explains what facilitators should do when giving individual feedback. Review each point on that list. Then review the additional points below:

- If space allows, provide individual feedback somewhat away from the group, to avoid disturbing others and to give the participant some privacy. For example, a participant and facilitator could sit in chairs in the hall where a case management chart is posted, or in the corner of the room.
- Individual feedback may be fairly brief. During the Case Management Training, individual feedback may not be as complete and lengthy as it is during the Facilitator Training, when you are learning how to provide feedback.
- Sometimes the guidelines for feedback on an exercise suggest a question to ask about the participant’s own hospital and its procedures. For example:
 - What admission criteria are used in your hospital?
 - Are 2-hourly feedings given to new patients?

When these questions are suggested, ask them and listen carefully to the participant’s answers. You will understand his/her situation better and may help the participant think through any concerns.

- All of you will practise giving individual feedback during this training. You will review a ‘participant’s’ answers and discuss how he/she arrived at his/her answers. You will practise consulting the *Facilitator Guide* and mentioning any key points. However, the questions and comments of the individual acting as the participant may not be similar to those encountered during the Case Management Training. Actual participants are likely to be more shy and may read or understand less quickly.

G. Reading and Work on Module/Practice Leading Group Discussion of Exercise C

Ask facilitator trainees to read pages 21–22 of the module and do Exercise C. They should also look at corresponding guidelines for Exercise C on pages 15–16 in the *Facilitator Guide*.

Assign one facilitator trainee (someone who works quickly) to be prepared to lead the group discussion after Exercise C. Remind this facilitator trainee to follow the guidelines on pages 15–16 of the *Facilitator Guide*. Record the assignment on the grid in **Annex E**.

When everyone is ready, ask the assigned facilitator trainee to lead the discussion. After the discussion, invite the rest of the group to comment on how it was led. Start by mentioning good points, and then discuss what could or should be improved. Be sure to clarify the content of the module if there is any confusion.

Note: Every time that a facilitator trainee practises leading an activity, be sure to give feedback. You may find it helpful to refer to ‘Performance Criteria for Facilitators’ on pages 51–52 of this guide to remind you of items to note when providing feedback to facilitators.

H. Facilitator Techniques: Oral Drills

Referring to the procedures table on [page 10](#) of the *Facilitator Guide*, point out the ‘Oral drill’ and the related notes on [pages 16–17](#).

Explain that repetitive practice will help participants learn certain skills. This oral drill provides practice in determining SAM based on presence of oedema, low MUAC and low weight-for-height (WFH) z-scores, and in using admission criteria. There will be other oral drills (for example, on determining amounts of F-75 needed) later in the Case Management Training.

Explain how to lead an oral drill:

- Gather the participants together. A drill works best when the chairs are arranged in a circle or around a table.
- Tell the participants that you are going to do a drill. A drill is not a test. It is an opportunity to practise a step, to develop speed and confidence.
- Ask a question and direct a participant to answer. He/she should answer quickly. If he/she cannot answer or answers incorrectly, you will ask the next person. Continue asking questions to participants in order, going around the circle.
- Keep the pace lively and the mood cheerful. Congratulate participants as they improve in their ability to answer correctly or more quickly.

Facilitators have some flexibility in when to lead a drill during the Case Management Training. They may do a drill at a time when participants need a break from reading. They may do a drill after a tea break or lunch, as a way to focus the group’s attention.

Begin the drill on applying admission criteria as described in the *Facilitator Guide* ([pages 16–17](#)). Then, after the pace of the drill is set, let a facilitator trainee take a turn being the ‘facilitator’ while the others act as ‘participants’. Afterward, discuss how the drill went. Were there ways that the drill could have been improved? Facilitators may add some more items to the drill in the blank spaces provided.

Record on the grid in **Annex E** the facilitator trainee who practised leading the drill.

I. Reading and Short Answer Exercises

Explain that the next part of the module includes reading about the rationale for the case management procedures taught in the Case Management Training. To break up the reading and check the participants’ understanding, a few short answer exercises are given. The first two (on [pages 26 and 30](#) of Module 2) are group-checked. In other words, when everyone has completed the short answer exercise, the facilitator will review the answers with the group. Answers are given in the *Facilitator Guide*. These should not be long discussions, just a way to ensure that the participants understand the material.

After the third short answer exercise ([page 33](#)), participants should check their own answers by looking at the correct answers given at the end of the module.

Ask facilitator trainees to continue reading to the end of the module, doing the short answer exercises as they come to them. Assign a facilitator trainee to lead each of the following brief

discussions to check the answers. Remember to record the assignments on the grid in **Annex E**:

_____ Group discussion, checking answers to short answer exercise (exercise on page 26 of the module) (guidelines on pages 17–18 of the *Facilitator Guide*).

_____ Group discussion, checking answers to short answer exercise (exercise on page 30 of the module) (guidelines on page 18 of the *Facilitator Guide*).

When everyone has finished the module, ask the participants entered on the line above to practise leading these brief discussions. Remember to give them feedback. Remind facilitator trainees to avoid confusing participants with too many medical details. If a participant wants to discuss a complicated issue at length, facilitators should offer to discuss it after class.

J. Facilitator Techniques: Video Activity

Referring again to the procedures table on page 10 of the *Facilitator Guide*, point out that a video is used in this module. Each group will have access to a video that includes four film segments to be used in the Case Management Training.

Show the group how to play the video and how the digital projector works. Ask them to come close as you show them. Explain where the equipment will be during the Case Management Training.

Discuss the techniques of leading a video exercise. Include the following points:

- Practise with the use of the video before the exercise, so that you know what to expect, when to start and stop it and how to adjust it. If it is a temperamental machine, give yourself enough time to get it working or arrange to have someone there who works well with the machine.
- Be sure that the lighting and the arrangement of chairs will allow everyone to see the monitor clearly.
- The first few times you show a video, it may take participants a few minutes to focus their attention on the video, and become accustomed to the picture and the narrator's voice. If you feel this is true, ask the participants if they would like you to restart the video.
- You may show the video again if time allows and there are no other groups waiting to use the machine.

Explain that the main point of this video is to review the signs of SAM as well as to show dramatic improvements over time. Show the video. After showing the video, ask what signs of recovery the facilitator trainees saw. Also discuss photos 21–29. These photos show changes in three children over a period of weeks.

There will be a chance for participants to practise leading a video activity later.

K. Facilitator Techniques: Summarising the Module

Point out the guidelines for summarising **Module 2, Principles of Care**, on page 19 of the *Facilitator Guide*. Show participants the blank box (page 20) in which they may write

additional points to include in the module summary. Ask for any suggestions to put in the box for this module.

Then summarise the module as instructed. Explain that from now on you will be asking participants to introduce and summarise modules. Guidelines are always given in the *Facilitator Guide*. Introductions and summaries should be very brief. Record on the Facilitator Practice Assignment Grid (**Annex E**) as participants have a chance to introduce or summarise modules.

Module 3: Initial Management

Point out the procedures table for **Module 3, Initial Management** on page 21 of the *Facilitator Guide*. Point out the section titled ‘Preparation for the module’ on pages 21–22. This section describes special supplies needed for a module, in this case copies of forms, ingredients for ReSoMal, etc. Be sure that you have these supplies ready in the classroom or kitchen area.

A. Reading and Practice Introducing the Module

Ask participants to read through page 9 of the module. Point out that nurses (and nutritionists) groups will stop at page 3 for a brief review and explanation of the Inpatient Management Record. Point out the shaded box for nurses (and nutritionist)’ groups on page 23 of the *Facilitator Guide*. Participants should read these shaded boxes, but, unless instructed otherwise, participants should practise as though they are leading a group of physicians.

Ask one person to be prepared to introduce the module. Record the assignment on the grid in **Annex E**. (In the Case Management Training, the facilitators will introduce the module before the participants begin reading; the order is reversed here simply to allow the participant time to prepare.)

_____ Introducing Module 3 (pages 22–23 of the *Facilitator Guide*).

B. Facilitator Techniques: Conducting a Demonstration

Referring to the procedures table on page 21 of the *Facilitator Guide*, point out that after the introduction of the module, Case Management Training participants will read through page 8 of the module, and then the facilitator will introduce the Inpatient Management Record and demonstrate use of the Initial Management page of the Inpatient Management Record. Point out the guidelines for the ‘Demonstration’ on pages 23–25 of the *Facilitator Guide*.

Use copies of the Inpatient Management Records, and ask for everyone’s attention.

Acting as a facilitator, demonstrate use of the Inpatient Management Record. Ask another person to act as a co-facilitator and read the story of ‘Dikki’ while you record.

After the demonstration, discuss the technique of conducting a demonstration. Include the following points:

- A demonstration introduces something that participants will soon read about in the module, such as a recording form. The purpose is to begin to explain it, so that participants will understand more easily when they read the text. Participants have now seen two demonstrations: one on how to use the *Weight-for-Height/Length Look-Up Table Job Aid* and one on use of the Inpatient Management Record.
- A demonstration may be easier to understand for some participants who have difficulty reading, or who are more used to listening to oral presentations than reading.
- The *Facilitator Guide* describes how to do the demonstration. Follow the guide closely, and do not explain more than is included in the instructions. It may be confusing if you go beyond the next step that participants will learn in the module.
- Be sure that all participants can see the form that you are using. If needed, have the participants get up from their chairs and come over to the form to see what you are describing.
- Be sure to speak clearly and loudly enough. Do not turn your back to participants as you speak. Try not to read directly from the guide or module. Speak in a conversational tone, varying the pitch and speed of your voice.
- Pairs of facilitator trainees will be assigned a demonstration to do as practice.
- Even if you have seen other facilitator trainees do the demonstration, you need to practise the demonstration before doing it in front of your group during the Case Management Training. Study the guide and then practise what to say so you will not have to read from the guide. Practise using any visual aids so you can do the demonstration comfortably and smoothly.

Assignments for the Next Day

Ask participants to read and work the written exercises in the rest of the module. Explain that the group activities will be done tomorrow. Remind participants that this is NOT how the work will be done in the Case Management Training. Participants should also carefully read the *Facilitator Guide* section for **Module 3, Initial Management**.

Assign the participants to be prepared to practise specific teaching activities (listed below) in front of the group. For Exercise B (preparing ReSoMal) and for the video exercise, assign pairs of facilitator trainees to work together.

For individual feedback, assign one person to act as the facilitator and one person to act as the participant. During the Facilitator Training each participant should have an opportunity to be the facilitator giving individual feedback. After each participant has had a turn, if you feel that all are well prepared to give individual feedback, you may stop assigning it to be practised aloud.

Keep track of assignments on the grid in **Annex E**. Be sure that each participant is assigned a variety of practice. For example, if he/she has already practised leading a group discussion, assign him/her to provide individual feedback.

_____ Individual feedback, Exercise A, Case 1 – Tina (page 26 of the *Facilitator Guide*).

- _____ Individual feedback, Exercise A, Case 2 – Kalpana (page 27 of the *Facilitator Guide*).
- _____ Individual feedback, Exercise A, Case 3 – John (page 27 of the *Facilitator Guide*).
- _____ Exercise B, preparing ReSoMal, group discussion (pages 27–28 of the *Facilitator Guide*). *Note:* It is best to assign someone who has prepared ReSoMal before to lead this exercise.
- _____ Demonstration for nurses (and nutritionists) groups using Initial Management page (pages 28–29 of the *Facilitator Guide*).
- _____ Individual feedback, Exercise C, Cases 1 and 2 – Marwan and Ram (page 29 of the *Facilitator Guide*).
- _____ Group work, Exercise C, Case 3 – Irena (pages 29–30 of the *Facilitator Guide*). *Note:* When recording this assignment on the grid in **Annex E**, count it as a demonstration.
- _____ Individual feedback, Exercise D, Cases 1 and 2 – Pershant and Ana (page 31 of the *Facilitator Guide*).
- _____ Video: Emergency Treatment (pages 31–32 of the *Facilitator Guide*).
- _____ Role of physician, role-play in Exercise E (pages 32–33 of the *Facilitator Guide*).
- _____ Role of nurse, role-play in Exercise E (pages 32–33 of the *Facilitator Guide*).
- _____ Summary of the module (page 33 of the *Facilitator Guide*).

Explain that participants will practise the teaching activities in the order that they come in the *Facilitator Guide*. It is essential that they complete the module and prepare for their assigned activities before the next day's training.

Meet briefly with the individuals assigned to play the role of the physician and nurse in the role-play in Exercise E. Point out the related guidelines in the *Facilitator Guide*. Suggest that they plan together how they will behave in the role-play. Their dialogue should be interesting but realistic.

Notes for Course Director on preparations for the next day

Have recipes, ingredients and supplies for making ReSoMal, F-75 and F-100 ready in the classroom or kitchen area.

Facilitator Day 2

Continuation of Module 3: Initial Management

A. Practice of Facilitator Techniques

Starting with individual feedback on Exercise A, have facilitator trainees practise their assigned teaching activities in the order that they come in the *Facilitator Guide*. Be prepared with ingredients and supplies for Exercise B (preparing ReSoMal).

During each practice, participants should refer to the *Facilitator Guide* to see whether all the points are covered. After each practice, discuss what was done well and what could be improved. Refer frequently to the *Facilitator Guide*, so participants stay aware of the order of events that they will follow during the Case Management Training.

Keep the focus on teaching techniques, but also clarify any confusion about module content if necessary. Refer to the ‘Performance Criteria for Facilitators’ on [pages 51–52](#) of this guide while providing feedback.

Before the role-play in Exercise E, explain that this is the first of several role-plays in the Case Management Training. Role-plays are especially useful for practising communication skills. Acting as a facilitator, co-ordinate the role-play in Exercise E. Follow the guidelines in the *Facilitator Guide*.

B. Facilitator Techniques: Co-ordinating Role-Plays

After the role-play in Exercise E, ask participants to look at ‘When coordinating a role-play’ on [page 79](#) of the *Facilitator Guide*. Discuss each point on [page 79](#) and answer any questions.

Also review the following points:

- Role-plays will not (and should not) be perfectly prepared and rehearsed performances. One of the objectives of role-plays is to practise dealing with new or surprising information while communicating effectively.
- The person playing the role of the health worker should not be told in advance any more information than is provided in the module; however, this person should be encouraged to review the relevant sections of the charts and the communication skills to be used. The facilitator should be sure that the health worker understands the purpose of the role-play and the steps or points to cover.
- The persons playing roles should behave realistically, incorporating any background information given about the role. Players may make up additional information if necessary, as long as it is realistic and consistent with the background information.
- It is important to look ahead in the guide to see when role-plays will occur and prepare for them. Some role-plays require supplies, such as a baby doll or a basin for bathing a child. These supplies will be listed in the instructions for the exercise. Explain where these supplies are located.

Tell participants that they will all have opportunities to participate in role-plays during the next few days. Keep a record on the Facilitator Practice Assignment Grid (**Annex E**) of who has played roles. You will act as the co-ordinator for the role-plays during Facilitator

Training. In doing so, you will provide a model of how to co-ordinate a role-play. Draw attention to the things that you do as a co-ordinator. For example, obtain photocopies of role descriptions, obtain props, assign roles, etc.

Note: After discussing role-plays, remember to ask the assigned person to summarise the module.

Module 4: Feeding

Point out the procedures table for this module on [page 35](#) of the *Facilitator Guide*. Unless facilitator trainees have previously taken the Case Management Training as a participant, they have not yet had time to read the module, so they will read and work the exercises in order. For exercises requiring individual feedback, participants should check their own answers and come to you with questions as needed.

A. Introduction and Exercise A: Preparing F-75 and F-100

Ask participants to read through [page 5](#) of the module up to Exercise A. Ask someone to briefly introduce the module. After the introduction, act as a facilitator and lead the group in preparing F-75 and F-100 and discuss RUTF as in Exercise A of the module. (It is important that you lead this activity to set a good example.) Conduct a brief group discussion after preparing F-75 and F-100. Point out the corresponding guidelines in the *Facilitator Guide* ([pages 36–37](#)).

B. Facilitator Techniques: While Participants Are Working

Looking at the procedures on [page 37](#) of the *Facilitator Guide*, point out that participants have a lot of independent reading, including some self-checked short answer exercises. Facilitators should be available to help during this individual work, if needed.

Ask facilitator trainees to look ‘When Participants Are Working’ on [page 78](#) of the *Facilitator Guide*. Review each point on the list. Also mention the following points:

- Watch participants as they begin an exercise to be sure that they understand what to do. If it takes a participant a long time to figure out the instructions for an exercise, or if he/she misunderstands the instructions, this can take up a lot of time and create frustration. If you observe such difficulty, help the participant right away.
- Look to make sure that participants are actually doing short answer exercises. They must do these self-checked exercises and not simply read the answers in the back of the module.
- If a participant is having trouble, lean down beside him/her and quietly give him/her some brief help. Try not to disturb other participants around him/her.

C. Reading and Work through Exercise B: Facilitator Practices Techniques

Ask participants to work independently on [pages 7–21](#) of the module. The participants should check their own answers or come to you for feedback.

Assign the following activities to be practised in front of the group. Keep track of assignments on the Facilitator Practice Assignment Grid in **Annex E**. Remember to assign

someone to be the participant for individual feedback. Participants may be given more than one assignment:

- _____ Oral drill: Determining amounts of F-75 to give (pages 37–38 of the *Facilitator Guide*). Assign two participants to do this drill. Have one start it and another one continue it.
- _____ Demonstration of 80% for nurses (and nutritionists) groups (shaded box on page 39 of the *Facilitator Guide*).
- _____ Demonstration: 24-Hour Food Intake Chart (page 40 of the *Facilitator Guide*). Assign two participants to work together on this.
- _____ Individual feedback, Exercise B, Case 1 – Delroy (page 41 of the *Facilitator Guide*).

When everyone is ready, have participants practise the assigned activities. Mention the reading that will come between each activity in the Case Management Training. As always, provide constructive feedback after practice.

D. Reading and Work through the End of the Module/Practice of Facilitator Techniques

Ask participants to continue reading and working in the module to page 46. Ask them to check their own answers or come to you for feedback if needed. They should also read the corresponding facilitator guidelines. If all of the participants have successfully practised individual feedback by now, there is no longer a need to conduct this. Unless there is a need to continue practising giving individual feedback aloud, stop assigning individual feedback at this point.

Explain that participants will skip Exercise E (scheduling activities for a ward), but will discuss how to handle it in the Case Management Training. (*For example, Exercise E may be done in hospital groups on the middle half-day of the Case Management Training.*)

Assign participants to be prepared to practise the following activities:

- _____ Group discussion (page 44 of the *Facilitator Guide*). Assign two participants to work together on this.
- _____ Summary of the module (page 45 of the *Facilitator Guide*).

When everyone is ready, look at the procedures table for Module 4 on page 35 of the *Facilitator Guide* and review the order in which activities will occur in the module. Discuss any questions that participants may have related to Exercises C, D, E and F. Discuss how to handle Exercise E in the Case Management Training.

Have the assigned participants lead the discussion of Exercise G.

Ask participants to read Section 6.1 on pages 48–53 of the module. Ask a participant to summarise; provide constructive feedback. Make sure to discuss the use of F-100-Diluted and the supplemental suckling technique. Ask participants to read Sections 6.2 and 6.3 on pages 53–57 of the module. Ask a participant to summarise; provide constructive feedback.

Summarise the module. As always, provide constructive feedback after practice.

Assignments for the Next Day

Point out the procedures table for **Module 5, Daily Care** on page 46 of the *Facilitator Guide*. Notice that most of the activities in this module are written exercises followed by individual feedback. Ask participants to read the entire module and, before arriving back the next morning, do the exercises, with the exception of Exercise B. Exercise B is a group exercise; participants should skip Exercise B since they will do it as a group on the next day.

To complete Exercise C, participants will need to take from the classroom a blank Monitoring Record. Since they will not have completed Exercise B, they should use the answer sheet for Exercise B to complete Exercise C.

Participants should check their own answers and read the facilitator guidelines related to the module.

Assign the following to be practised in front of the group. Remember to keep track of assignments on the Facilitator Practice Assignment Grid in **Annex E**.

- _____ Introducing the module (page 46 of the *Facilitator Guide*).
- _____ Demonstration of Daily Care page of the Inpatient Management Record (pages 47–48 of the *Facilitator Guide*).
- _____ Group work followed by group feedback, Exercise B (pages 49–50 of the *Facilitator Guide*).
- _____ Demonstration of Monitoring Record of the Inpatient Management Record (pages 50–51 of the *Facilitator Guide*). *Assign two participants to work together on this.*
- _____ Optional demonstration, Weight Chart of the Inpatient Management Record (pages 52–53 of the *Facilitator Guide*). *Assign two participants to work together on this.*
- _____ Summary of the module (page 54 of the *Facilitator Guide*).

Announce the time that clinical sessions will occur tomorrow. Give any related instructions about when and where to meet to go to the ward. Tell facilitator trainees that the clinical instructor will be in charge of this session and that they will act as participants. Tell facilitators to bring the set of Job Aids for Inpatient Care to clinical sessions.

Notes for Course Director on preparations for the next day

Have role descriptions photocopied for role-plays in **Module 6, Monitoring, Problem Solving and Reporting**, and **Module 7, Involving Mothers in Care**. (See pages 59–63, 68–69 and 70–72 of the *Facilitator Guide*.) The role-play in **Module 6, Monitoring, Problem Solving and Reporting**, will be done in the classroom tomorrow. The role-plays in **Module 7, Involving Mothers in Care**, will be assigned tomorrow afternoon, so you will need to be ready to distribute role-play descriptions and a sample referral form (see the *Referral Form Job Aid*) and a sample discharge card (see page 22 of **Module 7, Involving Mothers in Care, Annex B**).

Facilitator Day 3

Note: A 2-hour clinical session will occur during this day. Simply stop the training activities when it is time for the clinical session, and resume when you return to the classroom. Remind facilitators to take their set of Job Aids for Inpatient Care to the clinical session.

Module 5: Daily Care

A. Introduction of Module; Discussion of Questions

Facilitators should have completed the module the night before and checked their own answers.

Ask the assigned participant to introduce the module.

Referring to the procedures table on page 46 of the *Facilitator Guide*, review the activities of the module in order. Offer an opportunity to discuss or ask questions about the reading and written exercises.

B. Practice of Facilitator Techniques

Have participants practise their assigned activities in front of the group. As always, provide feedback after each practice.

Draw attention to points made in the *Facilitator Guide* and to the shaded boxes for nurses (and nutritionists) groups.

Module 6: Monitoring, Problem Solving and Reporting

Point out the procedures table for this module on page 55 of the *Facilitator Guide*. Unless participants have previously taken the Case Management Training as participants, they have not yet had time to read Module 6, so they will read and work the exercises in order.

A. Introduction and Work on the Module

Ask facilitator trainees to read and do the work through Exercise A (pages 1–10), and check their own answers. Assign someone to introduce the module. Remember to keep track of assignments on the Facilitator Practice Assignment Grid in **Annex E**.

_____ Section 1, Introducing the module (page 56 of the *Facilitator Guide*).

When everyone is ready, ask the assigned person to introduce the module. Ask facilitators if they have any questions about the first part of the module or Exercise A. After answering any questions, continue work on this module.

Facilitators will do the rest of this module much as participants will do it. They will read a section, do some individual work in preparation for a group discussion and then participate in a group discussion or role-play. Follow the *Facilitator Guide* as you lead the group through

this module. Before each new section of reading, assign a facilitator or a pair of facilitators to lead the next discussion.

B. Practice of Facilitator Techniques

As the group works through the module, assign facilitators to lead each discussion and to participate in the final role-play. Allow a little extra time to prepare if needed. (The rest of the group can continue working individually while they prepare.)

_____ Discussion following Exercise B (pages 57–58 of the *Facilitator Guide*).

_____ Discussion following Exercise C (page 58 of the *Facilitator Guide*).

_____ Discussion following Exercise D (page 59 of the *Facilitator Guide*).

_____ Role-play, Exercise E (pages 59–63 of the *Facilitator Guide*). Assign six roles:

- _____ Physician in charge
- _____ Senior nurse (morning)/matron
- _____ Senior nurse (afternoon, evening)
- _____ Night nurse
- _____ Junior auxiliary nurse
- _____ Hospital administrator

_____ Section 11, Summary of the module (page 64 of the *Facilitator Guide*).

During each practice, refer to the *Facilitator Guide* to see whether all the points are covered. After each practice, discuss what was done well and what could be improved.

Explain that item #9 on the procedures table (described on page 55 of the *Facilitator Guide*) may occur at a different time than it is listed. If participants have time during a clinical session to use the ‘Checklist for Monitoring Food Preparations’ or the ‘Checklist for Monitoring Ward Procedures’, the group should discuss the results upon returning to the classroom. If they don’t have an opportunity to use the checklists during a clinical session, they may be able to complete them back in the classroom simply by reflecting on what they have seen and heard. Use of the monitoring checklists may be a good way to identify real problems in the ward for another role-play of a problem-solving session like the one done in Exercise E.

Explain that item #10 on the procedures table (described on page 55 of the *Facilitator Guide*) will need particular attention. Participants will have to be sure that they completely understand the use of the tally sheet and must be able to fill in the monthly site report. Exercises F and G will be useful to practise filling in a monthly site report and interpreting performance.

Assignments for the Next Day

Assign all of **Module 7, Involving Mothers in Care**, to be done as homework. This is a brief module, and facilitators should be able to read it quickly. Since they have practised most facilitator techniques extensively at this point, they should focus on only two in this module: conducting video activities and role-plays.

Referring to your Facilitator Practice Assignment Grid (**Annex E**), assign participants to practise the following. (Only selected exercises are listed.)

- _____ Introduction of the module (page 67 of the *Facilitator Guide*).
- _____ Exercise B, Role-plays 1 and 2 (pages 68–69 of the *Facilitator Guide*). Assign roles:
 - _____ Role-play 1 Bossy nurse
 - _____ Role-play 1 Mother
 - _____ Role-play 2 Nice nurse
 - _____ Role-play 2 Mother
- _____ Video: Teaching mothers about home feeding and discussion, Exercise C (pages 69–70 of the *Facilitator Guide*).
- _____ Video: Malnutrition and mental development (page 70 of the *Facilitator Guide*).
- _____ Exercise D, Role-play (pages 70–72 of the *Facilitator Guide*):
 - _____ Nurse
 - _____ Mother
- _____ Summary of the module (page 72 of the *Facilitator Guide*).

Give role-play participants copies of their role-play descriptions. Give the nurse for the Exercise D role-play a completed discharge card. Point out to participants the preparations that you have made for the role-play. For example, you assigned roles and distributed role-play descriptions and you prepared a discharge card for use in Exercise D. You will also find some objects, such as a basin and wrapped-up towel to be used as a baby (or some creative substitution) helpful. Facilitators will need to make these arrangements during the Case Management Training.

Notes for Course Director on preparations for the next day

Have objects ready for role-plays.

Be ready to distribute a final schedule for the Case Management Training and clinical sessions for the next day. If you have not already done so, plan which facilitators will work together as co-facilitators during the Case Management Training.

Plan which classroom will be used by each small group/pair of facilitators. Ensure that the Case Management Training materials will be available to set up the classrooms tomorrow.

Facilitator Day 4

This is the last day of Facilitator Training. After completing the last module, facilitators will need time to set up their classrooms and fill in an end of training evaluation of the Facilitator Training. They also will need to familiarise themselves with the pre- and post-course test questions for the participants.

Module 7: Involving Mothers in Care

A. Introducing Module 7

Facilitators should have completed the module the night before. Ask the assigned participant to introduce the module.

Point out the procedures table on [page 66](#) of the *Facilitator Guide* and emphasise that participants will do them in this order during the Case Management Training.

B. Practice of Facilitators Techniques

Have participants practise their assigned activities in front of the group. As always, provide constructive feedback after each practice.

Tell facilitators where role-play supplies will be during the Case Management Training. Between practices, refer to the next steps in the procedures table on [page 66](#) of the *Facilitator Guide*, so that participants stay aware of the order of events that they will follow during the Case Management Training. Draw attention to notes on exercises that are being skipped; Exercise A was not assigned, but it will be included in the specified order in the Case Management Training.

Explain that Exercise E is optional; if many participants are from hospitals where early discharge will be common, include this discussion.

C. Facilitator Techniques: Review

Facilitator trainees now have practised all of the techniques that they will use in the Case Management Training. Ask them to read [pages 74–79](#) of the *Facilitator Guide*. These pages describe ways to motivate participants and improve teaching. Allow about 10 minutes to read these pages. (*If there is no time for this reading, ask them to read these pages before the Case Management Training begins.*)

While the group is reading, review the section called ‘Performance Criteria for Facilitators’ on [pages 51–52](#) of this guide. These are the criteria that you will use when supervising, monitoring and giving feedback to facilitators during the Case Management Training. Draw a star next to any of the criteria that you feel need to be reinforced with this particular group.

When all have finished reading, lead a brief discussion on the reading and on the criteria that you have started.

Ask facilitators if they would like to discuss any problems that they think might occur in the Case Management Training. Suggest ways to deal with these problems. Mention that there will be more opportunities for this type of discussion in **daily facilitator meetings** during the Case Management Training.

Practical Arrangements for the Case Management Training

If you have not already done so, announce assignments of facilitator pairs who will work together during the Case Management Training. Give facilitators the written schedule for the Case Management Training and the schedule for the clinical sessions. Explain when and where participants will meet for transportation (if needed) to the clinical sessions.

Inform facilitators that lists of the participants in each group will be prepared on the first morning as soon as participants have registered. Facilitators will be given a copy of the registration form and a pre- and post-course test form for each participant in their group. Remind facilitators to discuss with their co-facilitators how they will divide the work for the first few sessions.

Remind facilitators that an introduction package will be shared with all participants at the opening session and that course materials will be distributed in each small group gradually. Facilitators will be given a copy of the post-test and end of training evaluations at the end of the Case Management Training to distribute to participants.

Tell facilitators which classrooms they will use. Tell them when and where they can obtain the course materials and stationary for their group, or when the materials will be delivered to their classrooms. Tell them when they can go to their classrooms to:

- Arrange the tables, chairs and course materials
- Arrange a place for individual feedback and support

Tell facilitators whom to contact if they need extra supplies, materials or stationary during the Case Management Training.

Remind facilitators where the laptop computer, digital projector and any other shared equipment will be during the Case Management Training. Inform them of any problems with the electrical supply that could affect when to show the video.

Ask if facilitators have any questions about practical arrangements.

Closing Remarks to Facilitators

Tell facilitators when the daily facilitator meetings will be held. Explain the objectives of these brief meetings, which are:

1. To assess progress made by each group, identify any problems and agree on actions to solve each problem.
2. To provide opportunity to meet with the clinical instructor, who also has feedback on your group of participants.

3. To discuss techniques that some facilitators found useful and can recommend to others (for example, techniques for leading a group discussion, providing individual feedback or demonstrating use of a form).
4. To prepare for the next day (for example, to review points to be emphasised in modules, remind facilitators of group activities, discuss any modifications that may be needed in the schedule).
5. To make any necessary administrative announcements.

Tell facilitators that their schedule will be very busy. Encourage **informal** discussions to be held after class hours (for example, to discuss practical use of what they are learning, potential problems or other ideas related to the Case Management Training). Ask facilitators to suggest ways, times and places that such informal discussions could take place.

Thank the facilitators for their hard work. Tell them that they will receive certificates along with the participants at the end of the Case Management Training.

Ask facilitators to fill in an end of training evaluation before leaving the training site.

Part 4: Responsibilities of the Course Director during the Case Management Training

Suggestions for Opening Remarks to Case Management Training Participants

As Course Director you will want to make some opening remarks to all participants, probably during an opening ceremony. Keep in mind, however, that facilitators will provide an introduction to the Case Management Training in their small groups. Your remarks should be on a general scale, perhaps focusing on the importance of the Case Management Training to health care in the country. You may wish to adapt the following outline.

A. Welcome and Introductions

B. Statement of the Need for and Importance of the Case Management Training and Further Plans for Use of the Case Management Training

C. Key Characteristics of the Case Management Training

1. This Case Management Training may be rather different from many you have attended in that you will actually **practise** the skills being taught, both in a classroom and in a clinical setting.
2. You will primarily be working in small groups where there will be many opportunities for individual and group discussion.
3. The Case Management Training will be hard work, but will be equally rewarding in that you will learn or improve skills that you can actually **use on the job** when you return home.

D. Announcements about Schedule, Posting of Group Assignments, etc.

Supervision of Facilitators

A. Observe Facilitators at Work

1. Visit each group in their classrooms each day. Also observe one or two clinical sessions each day.
2. When observing facilitators, refer to the 'Performance Criteria for Facilitators' below (pages 51–52). Use the appropriate section(s) of the list for the activity that is under way when you visit the group. For example, if they are having a group discussion, refer to the section titled 'Facilitator Technique: Leading a Discussion'. Also refer to the section titled 'Facilitator Technique: Working with a Co-facilitator'.

The performance criteria are not intended to be used as a 'report card' for the facilitators, but rather as a job aid for your observations and feedback. You do not need to mark on the list for each facilitator; simply keep it in front of you as you make your observations. After your visit to each group, make notes on things that the facilitators were doing well and on things that could be improved. You may give feedback to a facilitator privately or, if the feedback applies to a number of

facilitators, in a daily facilitator meeting. Be careful never to embarrass a facilitator by correcting him/her in front of his/her group.

3. On the first day of the Case Management Training, tactfully but firmly enforce the practice of providing individual feedback and commend those who provide it. Be sure that facilitators have set up and are using a comfortable place for individual consultations. If not, help them find a better spot, such as on a terrace near the room or in a hallway, and encourage them to move the necessary chairs there, etc. Ensure that the facilitators are mentioning all the major points of each module specified in the *Facilitator Guide*.
4. Be sure that at least one facilitator attends each clinical session with the group. Facilitators should help the clinical instructor as needed during these sessions.

Performance Criteria for Facilitators

When observing facilitators with their groups, refer to this list as a reminder of appropriate facilitator techniques for the activity observed.

1. Facilitator Technique: Working with a Co-facilitator

- a. Shares the work on each module in an organised way (each facilitator has a role in the exercise, discussion, presentation, etc.)
- b. Is flexible and able to adjust role as needed
- c. Is polite and respectful when adding comments or making suggestions while his/her partner is leading
- d. When leading, invites his/her partner to participate by adding comments or an opinion

2. Facilitator Technique: Introducing a Module

- a. Keeps introduction brief
- b. Includes all points mentioned in the *Facilitator Guide*

3. Facilitator Technique: Individual Feedback

- a. Sits privately with the participant to give feedback
- b. Checks answers carefully; listens as participant discusses reasons for his/her answers
- c. Encourages and reinforces participant's efforts
- d. Helps participant to understand any errors; gives clear explanations
- e. Refers to the job aids and encourages participant to do so as well
- f. When appropriate, asks questions about the participant's own hospital and how the exercise applies to the situation there

4. Facilitator Technique: Video Activity

- a. Knows the system how to show the video and starts the video at the right spot
- b. Directs the exercise in an organised manner
- c. Replays parts of the video as needed

5. Facilitator Technique: Leading a Discussion

- a. Sets up the discussion by explaining its purpose and how it will proceed
- b. Involves all participants in the discussion
- c. Reinforces participants by thanking them for comments, praising good ideas, etc.
- d. Handles incorrect or off-the-subject comments from participants tactfully
- e. Asks questions to keep the discussion active and on track

- f. Responds adequately to unexpected questions; offers to seek answers if not known
- g. Records ideas on the flipchart in a clear, useful manner
- h. Includes points listed in the *Facilitator Guide*
- i. At the end of the discussion, summarises the major points made

6. Facilitator Technique: Oral Drills

- a. Arranges the group appropriately
- b. Gives clear instructions on how the drill will proceed
- c. Keeps the pace of the drill appropriate for the group
- d. Encourages participants; gives positive feedback; makes corrections tactfully

7. Facilitator Technique: Co-ordinating Role-Plays

- a. Sets up role-play carefully by obtaining any necessary props, briefing those participants who will play roles and allowing time to prepare
- b. Clearly introduces role-play by explaining the purpose, the situation being enacted, background information and the roles being played
- c. Interrupts only if players are having tremendous difficulty or have strayed from the purpose of the role-play
- d. Guides discussion after the role-play so that feedback is supportive and includes things done well and things that could be improved

8. Facilitator Technique: While Participants Are Working

- a. Looks available, interested and willing to help
- b. Encourages questions
- c. Watches participants as they work; offers individual help to participants who appear confused
- d. Gives individual help quietly, without disturbing others in the group

9. Facilitator Technique: Adapting for Nurses (and Nutritionists) Groups

- a. Uses suggestions in shaded boxes in the *Facilitator Guide*
- b. Gives enough extra explanation but not too much
- c. Is not condescending

10. Facilitator Technique: Summarising the Module

- a. Keeps summary brief and clear
- b. Includes the major points to be remembered from the module

B. Conduct Daily Facilitator Meetings

Facilitator meetings are usually conducted for about 30–45 minutes **at the end of each day**. Facilitators will be tired, so keep the meetings brief.

1. Begin each meeting by asking a facilitator from each group to describe progress made by his/her group, to identify any problems impeding progress and to identify any skill or any section of the modules that participants found especially difficult to do or understand.
2. Identify solutions to any problems related to any particular group's progress or related to difficult skills or sections of the modules.
3. Discuss teaching techniques that the facilitators found to be successful.
4. Provide feedback to the facilitators on their performance. Use the notes that you have taken while observing the groups during the day.
 - a. Mention a few specific actions that were well done (for example, providing participants with individual feedback, making all the major points listed in the *Facilitator Guide*).
 - b. Mention a few actions that might be done better (for example, provide more guidance individually instead of in discussions with the whole group, review any major points of the last module before introducing the next module).
5. Remind facilitators of certain actions that you consider important, for example:
 - a. Discuss problems with a co-facilitator. If co-facilitators cannot solve problems together, go to the Course Director. The Course Director may be able to deal with these situations (for example, by setting up tutorials, discussing matters privately with the individuals).
 - b. Speak softly while giving feedback to avoid disturbing others. Put chairs out in the hall so that a participant and a facilitator can talk without disturbing the rest of the group.
 - c. Always be open to questions. Try to answer immediately, but if a question takes too long to answer, diverts the attention of the group from the main topic or is not relevant at the moment, suggest that the discussion be continued later (for example, during free time, over dinner). If a question will be answered later in the Case Management Training, explain this. If unsure of the answer to a question, offer to ask someone else and then come back later with an explanation.
 - d. Interact informally with participants outside of scheduled class meetings.
 - e. For participants who cannot read the modules and/or do the exercises as quickly as others, the facilitators should:
 - Avoid doing exercises **for** them
 - Reinforce small successes
 - Be patient (or ask another facilitator to help)
6. Review important points to emphasise in the module(s) the next day.
7. Remind the facilitators to consult the *Facilitator Guide* and gather together any supplies needed for the next day.
8. Make any necessary administrative announcements (for example, location of supplies, room changes, transportation arrangements, etc.).

9. After a few days, ask facilitators to point out to you any participants who might be good candidates for Facilitator Training. These would be participants who:
 - Understand the modules easily
 - Communicate clearly
 - Help others and work well with others in their group
 - Participate confidently in discussions and role-plays

Supervision of the Clinical Instructor

During the Case Management Training, the clinical instructor will be teaching each group each day. You will not be able to observe all clinical sessions. Plan to visit some of the sessions. During these visits, do not interfere in any way with the session, but observe as inconspicuously as possible. Each session is very full, and there is no extra time for conversation with you. Any discussion should take place later at the end of the day.

If the clinical instructor is new to this position, you may ask an experienced clinical instructor to observe and give him/her feedback on his/her technique.

Collection of Data during the Case Management Training

This guide provides several possible forms for collecting data during the Case Management Training. These forms are just suggestions. Different forms may be developed for other needs. The forms given in this guide are:

- A. Registration Form (Annex D)** – completed by participants at registration on the first morning of the Case Management Training.
- B. Summary Participant List (Annex D)** – partly completed on the basis of registration data and partly by facilitators as they work with the participants during the Case Management Training. Also includes information on the level of difficulty that participants have in reading the modules. This information can be useful in planning future Case Management Training courses.
- C. Pre- and Post-Course Test of the Case Management Training (Annex G)** – evaluation of knowledge and skills of participants is completed at the beginning and at the end of the Case Management Training. This information is useful to evaluate the quality of the Case Management Training, the level of knowledge of participants and their improvement, at the end of the Case Management Training.
- D. End of Training Evaluations (Annex H)**
- E. Course Director Summary – Report Outline (Annex I)** – completed by the Course Director at the end of the Case Management Training. Includes information on the total numbers of participants and facilitators, modules completed by each group, hours devoted to clinical sessions, number of patients seen, etc. All of this information is useful for monitoring numbers of facilitators and participants trained, selecting future training sites (based on adequacy of caseload) and ensuring that the Case Management Training is being given as planned and not altered or shortened unacceptably.

In addition, the clinical instructor will be keeping a tally sheet of the clinical objectives achieved by each group. (This tally sheet is in Annex C of the *Clinical Instructor Guide*.) Review this record with the clinical instructor and discuss any problems with achieving the objectives and implications for planning future training courses.

Pre- and Post-Course Test

Facilitators will assist the Course Director to conduct a pre- and post-course test of the Case Management Training (**Annex G**). A summary of test results will be developed to provide an indication on the participant's individual progress made in knowledge of the subject matter and on the overall performance of the training course, including performances of the Course Director, the clinical instructor and facilitators, the course materials and the course methods.

An impact evaluation specifically of the training or in general of the overall capacity strengthening strategy can be conducted and is advisable for tailoring the capacity strengthening strategy to the needs of different audiences and for improving overall quality of care.

End of Training Evaluations

You may wish to use an evaluation questionnaire to determine participants' opinions at the conclusion of the Facilitator Training and Case Management Training. Sample evaluation questionnaires are provided in **Annex H**. Review and revise these questionnaires as necessary to ensure that it is appropriate for evaluating the Facilitator Training and Case Management Training as they have been conducted.

You may wish to add or delete specific questions. If you make such revisions, remember: keep the questionnaire as short as possible and include questions only if you will use the responses for a specific purpose, for example, to plan future training courses or to evaluate the helpfulness of a particular activity.

Closing Session

1. Prepare and give a brief summary of the Case Management Training. The summary may include a review of the learning objectives from the beginning of each module and any important points that might have been raised during the Case Management Training.
2. Explain that participants should try to begin using the case management process taught in this Case Management Training when they return to their hospitals. If they encounter difficulties, they should seek help. Describe any help that may be available in the form of consultation, e-mail contacts, etc.
3. Present training course photos and certificates to the participants and facilitators and congratulate them on their hard work.

Annex A: Chart for Scheduling Clinical Sessions

Clinical Sessions Schedule

Clinical Sessions	Group A	Group B	Group C
Day 1 Tour of Ward 1 hour			
Day 2 Clinical Signs and Anthropometric Measurements 1.5 hours			
Day 3 Initial Management 1.5 hours			
Day 4 Flexible half-day, optional clinical session			
Day 5 Initial Management and Feeding 2 hours			
Day 6 Feeding 1.5 hours			
Day 7 Daily Care and Monitoring Quality Care 2 hours			
Observe health and nutrition education session (and cooking sessions) for mothers			
Observe play session			

Objectives for Clinical Sessions

Clinical practice is an essential part of the *Training Course on Inpatient Management of Severe Acute Malnutrition*. Clinical sessions are led by the clinical instructor in the SAM ward each day of the Case Management Training. The focus of the clinical sessions is to see and participate in the management of SAM in children, following the procedures described in the CMAM Manual and the training course.

Day 1: Tour of Ward

- Observe the admissions area
- Observe the emergency treatment area
- Observe how the SAM ward or area is organised
- Observe the kitchen area
- Observe any special areas for play, health education, etc.

Day 2: Clinical Signs

- Observe children with clinical signs of SAM
- Look for signs of SAM and medical complications
- Measure MUAC
- Measure weight and length/height
- Look up weight-for-height z-scores
- Look up target weight for discharge
- Test appetite with RUTF
- Identify children with SAM, review admission criteria and discuss treatment in Inpatient Care and referral to Outpatient Care

Day 3: Initial Management

- Observe initial management of SAM in children
- Identify clinical signs of SAM and medical complications: hypoglycaemia, hypothermia, shock, dehydration, severe anaemia and corneal ulceration
- Practise using dextrostix
- Practise filling out an Inpatient Management Record during initial management
- Assist in conducting initial management, if feasible, such as:
 - Take rectal temperature
 - Give bolus of glucose for hypoglycaemia
 - Warm child
 - Give first feed

Day 4: Flexible Half-Day, Optional Clinical Session

Any of the preceding activities may be repeated for extra practice. If case management in the hospital is good, participants may be assigned to ‘shadow’ and assist a health care provider 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 conducting initial management, if feasible, including:
 - Identify signs of possible dehydration in a child with SAM
 - Measure and give ReSoMal

- Monitor a child on ReSoMal
- Determine antibiotics and dosages
- Practise testing the appetite with RUTF: appetite test, for a child who shows appetite and is clinically well and alert
- Practise conducting the supplemental suckling technique if possible
- Observe nurses (and nutritionists) measuring and giving feeds
- Practise measuring, giving and recording feeds

Day 6: Feeding

- Review 24-Hour Intake Charts and plan feeds for the next day
- Determine if child is ready for RUTF and/or F-100; practise testing the appetite with RUTF: appetite test (continued)
- Prepare F-75, F-100 and ReSoMal, and learn the contents of RUTF
- Practise measuring, giving and recording feeds (continued)

Day 7: Daily Care and Monitoring Quality Care

- Keep Inpatient Management Records on children observed and cared for
- Participate in daily care tasks, as feasible:
 - Measure pulse rate, respiratory rate and temperature
 - Administer eye drops, antibiotics, other drugs and supplements; change eye bandages, etc.
 - Weigh child and record weight (on Daily Care and on weight chart of Inpatient Management Record)
 - Look up target weight for discharge and mark on weight chart
 - Observe and assist with bathing children
- Assist with feeding (continued)
- Discuss progress to referral and/or discharge and decide when the child is ready; practise referral to Outpatient Care when stabilised and discharge when full recovery
- Monitor quality of care using checklist
- Practise filling out tally and reporting sheets, and assess performance

Additional Objectives

- Observe a health and nutrition education session (and a cooking session) with mothers
- Observe a play session

Annex B: Schedule for the Facilitator Training

An illustrative schedule for the Facilitator Training is provided on the next page. When adapting this schedule, keep the following points in mind:

1. The schedule is 4 working days. Seven working hours have been scheduled each day. It is assumed that an additional 1–1½ hours will be needed for lunch and tea breaks. On the third day, some additional time may be needed for transportation to clinical sessions.
2. Facilitator training is critical to the success of the training effort. The 4-day schedule is very full. Do not try to shorten the schedule.
3. The schedule will require facilitators to work in a concentrated way. If facilitators have not taken the Case Management Training before, extensive homework will be required each night. Even if facilitators have taken the Case Management Training previously as participants, some homework will be needed.
4. The third day should include 2 hours of clinical session. (Clinical sessions should be scheduled at the time of day when most patients arrive, usually in the morning.) Facilitators may wish to see the ward before the third day. If there is time, and if desired, a tour of the ward may be conducted on the first day of the Case Management Training.
5. The schedule includes time for discussion of facilitator techniques, such as individual feedback, leading discussions, etc.
6. The schedule should be flexible. If work is completed ahead of schedule on a certain day, facilitator trainees should begin work on the next module. If work takes too long, extra homework can be assigned, or some activities delayed until the next day.
7. Reserve time on the last day for such arrangements as discussion of the schedule for the Case Management Training, assignments of classrooms and distribution of instructional materials and supplies.
8. Before the end of the Facilitator Training, assign pairs of facilitators to work together and designate classrooms. This will allow the facilitator pairs time to get organised in their rooms and plan how they will work together.
9. There should be at least 1 complete day off prior to the Case Management Training to allow facilitators to rest.

Facilitator Training Schedule

Facilitator Day 1*

Activity	Time
Registration	
1. Opening session	30 minutes
A. Introductions	
B. Administrative tasks	
C. Review of purpose of the training course	
2. Introduction to the Facilitator Training	45 minutes
Introduction to CMAM and national CMAM strategy, implementation and scale-up	
A. Context of Facilitator Training	
B. Course materials needed	
C. Objectives of Facilitator Training	
D. Teaching methods	
E. Schedule for Facilitator Training	
F. Introduction of the <i>Facilitator Guide</i>	
3. Module 1: Introduction	15 minutes
A. Orientation on CMAM	
B. Review and Demonstration	
B. Facilitator Techniques: Working with a Co-facilitator	
4. Module 2: Principles of Care	4 hours
A. Facilitator Techniques: Introducing a module	
B. Reading and work on module	
C. Facilitator Techniques: Leading a discussion	
D. Reading and work on module	
E. Facilitator Techniques: Adapting for nurses (and nutritionists)' groups	
F. Facilitator Techniques: Individual feedback	
G. Reading and work on module, practise group discussion	
H. Facilitator Techniques: Oral drills	
I. Reading and short answer exercises	
J. Facilitator Techniques: Video activity	
K. Facilitator Techniques: Summarising a module	
5. Module 3: Initial Management	1.5 hours
A. Reading and practice on introducing module	
B. Facilitator Techniques: Conducting a demonstration	
6. Assignments for the next day:	
* Reading and exercises in Initial Management module	
* Reading of corresponding facilitator guidelines	
* Preparing for assigned activities	

* If time allows, and if desired, a tour of the ward may be added to the first day.

Facilitator Day 2

Activity	Time
<p>1. Continuation of Module 3: Initial Management</p> <p>A. Practice of facilitator techniques</p> <p>B. Facilitator Techniques: Co-ordinating role-plays</p>	3 hours
<p>2. Module 4: Feeding</p> <p>A. Introduction and Exercise A, preparing F-75 and F-100</p> <p>B. Facilitator Techniques: While participants are working</p> <p>C. Reading/work through Exercise B; practice of facilitator techniques</p> <p>D. Reading/work through end of module; practice of facilitator techniques</p>	4 hours
<p>3. Assignments for the next day</p> <ul style="list-style-type: none"> * Reading and exercises in Daily Care module * Reading corresponding facilitator guidelines * Preparing for assigned activities 	

Facilitator Day 3

Activity	Time
Clinical session	2 hours
<p>1. Module 5: Daily Care</p> <p>A. Introduction of module, discussion of questions</p> <p>B. Practice of facilitator techniques</p>	1.5 hours
<p>2. Module 6: Monitoring, Problem Solving and Reporting</p> <p>A. Introduction and work on the module</p> <p>B. Practice of facilitator techniques</p>	3.5 hours
<p>3. Assignments for the next day</p> <ul style="list-style-type: none"> * Reading on monitoring and reporting of Inpatient Care * Reading and exercises in Module 7, Involving Mothers in Care * Reading corresponding facilitator guidelines * Prepare for assigned activities 	

Facilitator Day 4

Activity	Time
<p>1. Module 6: Monitoring, Problem Solving and Reporting (<i>continued</i>)</p> <p>A. Work on reporting for CMAM B. Practice of facilitator techniques</p>	2 hours
<p>2. Module 7: Involving Mothers in Care</p> <p>A. Introduction of module B. Practice of facilitator techniques C. Facilitator Techniques: Review</p>	2 hours
<p>3. Practical arrangements for the Case Management Training</p>	1 hour
<p>4. End evaluation the Facilitator Training</p>	0.25 hour
<p>5. Closing remarks to facilitators</p>	0.5 hour
<p>6. Co-facilitators discuss plans for first day of the Case Management Training; set up classroom and course materials</p>	

Annex C: Schedule for the Case Management Training

An illustrative schedule is on the next page. When adapting this schedule, keep the following points in mind:

1. Since groups will work at different paces, the schedule should be somewhat flexible. It should not list precise times for completion of modules, but should rather indicate general time frames. You will, however, need to list specific times for beginning and ending the day, tea breaks and lunch.
2. Seven half-days of work are required for the participants to complete the modules and clinical sessions. The half-day is scheduled in the middle of the Case Management Training to allow some flexible time for catching up, extra clinical sessions or planning exercises with hospital groups. The rest of this half-day should be reserved for participants to rest, review and do personal errands.
3. The schedule includes 7 working hours on every day except the middle half-day. It is assumed that 1–1½ additional hours will be used for lunch and tea breaks each day. If time is required for transportation to and from Case Management Training, this transition time will add to the length of each day.
4. Every full day includes clinical sessions. It will occur at different times each day.
5. It is helpful to schedule a time apart from regular training hours when at least one facilitator is available to discuss any problems or questions.
6. Homework on exercises is not recommended for participants. The coursework during the Case Management Training is tiring, so participants should not be asked to do additional work in the evenings.

Case Management Training Schedule

	Activity	Time
DAY 1	Registration	0.5 hour
	Opening presentation	1 hour
	Pre-course test	0.5 hour
	Module 1: Introduction	0.5 hour
	Module 2: Principles of Care Video: Transformations	4 hours
	Clinical session: Tour of ward(s)	1 hour
DAY 2	Module 3: Initial Management through Exercise C	5.5 hours
	Clinical session: Clinical Signs and Anthropometric Measurements	1.5 hours
DAY 3	Finish Module 3: Initial Management Video: Emergency Care	2.5 hours
	Module 4: Feeding through Exercise B	3 hours
	Clinical session: Initial Management	1.5 hours
DAY 4	Individual work on Module 4: Feeding	1 hour
	Flexible half-day: This time can be used for an additional clinical session, observing health and nutrition education sessions with mothers, observing play sessions, catch-up time, discussion/planning time for participants from the same hospital, etc.	3 hours
DAY 5	Finish Module 4: Feeding	4 hours
	Module 5: Daily Care through Exercise A	1 hour
	Clinical session: Initial Management and Feeding	2 hours
DAY 6	Finish Module 5: Daily Care	3 hours
	Module 6: Monitoring, Problem Solving and Reporting through Exercise B	2.5 hours
	Clinical session: Feeding	1.5 hours
DAY 7	Finish Module 6: Monitoring, Problem Solving and Reporting	2 hours
	Module 7: Involving Mothers in Care	3 hours
	Clinical session: Daily Care and Monitoring Quality Care	1.5 hours
	Post-course test	0.5 hour
	End evaluation Case Management Training	
	Closing ceremony	0.5 hour

Annex D: Training Course Registration Form

Registration Form

Facilitator Training/Case Management Training (Circle)

Please print clearly.

Name:

Best Mailing Address:

Name and location
of hospital
where you work:

Does your hospital have a SAM ward? If not, where are children with SAM treated?

What is your current work position or job title?

What medical or nursing (nutritionist) training have you previously received (either in school or in relation to your job)?

What year did you finish your basic medical or nursing (nutritionist) training?

Summary Participant List

Facilitator Training/Case Management Training (Circle)

Name	Mailing Address	Position	Hospital/ Institution	If linked to a hospital, has SAM ward? (Yes, No)	Degree of difficulty reading modules	Other comments

Annex E: Facilitator Practice Assessment Grid

(Enter the name of the module and the exercise in which each facilitator trainee practises each skill.)

Names of Facilitator Trainees	Individual Feedback: Facilitator	Module Introduction	Demonstration	Group Discussion	Video Activity	Role-Play Actor	Oral Drill	Module Summary

Annex F: Facilitator Meetings Report

Daily Facilitator Meeting Report

Group:

Name of facilitator:

		Comments
Start Time		
End Time		

Reading:

	Reading (Time)	Module	Page	Comments
Start				
End				

Suggestions for improvements:

Performance of participants throughout the day (Please put a tick where you see fit):

No.	Name	Poor	Average	Good	Excellent
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Comment:

Clinical Session:

	Time	Comments
To Hospital		
Return back		

Issues to be raised in the meeting:

Module	Page	Comments

Suggestions:

Logistics:

Other comments:

Annex G: Pre- and Post-Course Test of the Case Management Training

Name Trainee: _____

Mark: _____/20

- Choose the best definition of Severe Acute Malnutrition (SAM) for children 6–59 months (Circle) (1 point)
 - Form of malnutrition characterised by severe abnormal weight for the height and/or bilateral pitting oedema
 - Form of malnutrition characterised by thinness and/or bilateral pitting oedema
 - Form of malnutrition characterised by severe thinness and/or bilateral pitting oedema ---YES
 - Form of malnutrition characterised by low weight and/or bilateral pitting oedema
 - Form of malnutrition characterised by very low weight and/or bilateral pitting oedema

- Which one of the following signs are signs of severe wasting? (Write Yes or No) (0.6 points and 0.1 for each correct answer)

	Yes/No
Loose skin on the arm	Y
Corneal clouding	N
Sunken eyes	Y
Swollen legs	N
Small head	N
Skin discoloration	N
Smiling face	N
Baggy pants (loose skin on buttocks)	Y
Big head	N
Visible ribs	Y

- What is the currently recommended cut-off mid-upper arm circumference (MUAC) for SAM diagnosis in 6–59 month-old children? (Tick the correct answer) (0.9 points and 0.1 for each correct answer)

-3 z-score MUAC-for-age	N
-2 z-score MUAC-for-age	N
< 110 mm	N
< 115 mm	Y
< 125 mm	N
< 135 mm	N

- Indicate the different components of Community-Based Management of Acute Malnutrition (CMAM) (Write Yes or No) (0.9 points and 0.1 for each correct answer)

	Yes/No
Mobile clinic	N
Home gardening	N
Inpatient care	Y
Growth monitoring and prevention	N
Management of moderate acute malnutrition	Y
Outpatient care	Y
Community outreach	Y
Expanded program of vaccination	N
Cooking demonstration	N

5. Select in the list below conditions of SAM in children requiring an immediate intervention when in Inpatient Care: **(2.5 points and 0.25 for each correct answer)**

	Yes/No
Diarrhoea	N
Hypoglycaemia	Y
Shock	Y
Severe iron deficiency	N
Corneal ulceration	Y
Photophobia	Y
Fever	Y
Hypothermia	Y
Poor appetite	N
Oedema ++	N

6. In the management of SAM in CMAM where (Inpatient Care and/or Outpatient Care) and when (Reason) is the following product used: **(2 points, 0.25 for each correct answer)**

	Where (Inpatient/Outpatient)	When (Reason)
ReSoMal	Inpatient	Dehydration
F-75	Inpatient	Stabilisation
RUTF	Inpatient/Outpatient	Transition/Rehabilitation
ORS	NEVER or Inpatient Care	Only exception is in case of cholera
F-100-Diluted	Inpatient	Infant < 6 m
Modified animal milk	Inpatient/Outpatient	Infant < 6 m
Sugar water	Inpatient	Hypoglycaemia/Shock
F-100	Inpatient	Transition/Rehabilitation

7. With the information available, decide whether the following children with SAM should be treated at Outpatient Care (Outpatient) or Inpatient Care (Inpatient) or not: **(2.5 points and 0.25 for each correct answer)**

	Outpatient/ Inpatient
2-year old, MUAC 116 mm, no oedema, weight for height (WFH) between -2 and -3 z-score, good appetite and no medical complications	MAM
Breastfed 4-month-old infant, visible wasting, mother says baby not sucking well	Inpatient
3-year old, MUAC 111 mm, no oedema, good appetite but cough, fever 39.5° C and respirations rate > 45 breaths/minute	Inpatient
2-year old, MUAC 123 mm, oedema (++) , WFH between -2 and -3 z-score, good appetite and no medical complication	Outpatient
2-year old referred from the community, eats 2/3 of the RUTF packet during appetite test, oedema (++) , MUAC 111 mm	Inpatient
2-year old referred from the community, eats 1/4 of the RUTF packet during appetite test, oedema (+) , MUAC 117 mm	Inpatient
2-year old referred from the community, eats 1/3 of the RUTF packet during appetite test, oedema (++) , MUAC 118 mm	Outpatient
2-year old, MUAC 116 mm, no oedema, WFH between -2 and -3 z-score, good appetite and no medical complications	MAM
4-year old, no medical complications, eats 1/3 of RUTF during the appetite test, MUAC 119 mm, WFH < -3 z-score	Outpatient
Breastfed 7-month-old infant, visible wasting, 3.7 kg, good appetite according to the mother and mother happy with Outpatient Care management	Inpatient
2-year old, MUAC 123 mm, oedema (++) , WFH between -2 and -3 z-score, good appetite and dermatosis (+++)	Inpatient

8. True or False, briefly explain your choice (5 points, 0.3 for each correct answer):

	True or False	Briefly explain your choice:
The role of the community in the management of SAM is negligible	F	Community mobilisation and community screening for understanding SAM, and CMAM and early detection and referral for treatment is essential
ReSoMal should be immediately given to a child with marasmus, sunken eyes, dry mouth and three liquid stools in past 24 hours	F	Only if dehydration
Iron is given from the start of treatment of SAM in children directly admitted as outpatient	T	RUTF contains iron
In presence of eye signs of vitamin A deficiency, one single dose of vitamin A is given during treatment	F	3 doses
It is advisable to admit a child with SAM and complication in the general paediatric ward.	F	Risk of cross-infection and risk of mismanagement
The height is not measured in children below 2 years	T	Length
The use of standard case management of SAM reduces the case fatality by 50%	F	Case fatality reduces from 30% to 5%, is reduction > 80%
Antibiotics are given to all children with SAM and confirmed infection	F	All children
IV fluid is given to all children with confirmed diarrhoea, sunken eyes and dry mouth	F	Only if child is in shock
A child with lethargy, weak and rapid pulse, cold extremities, tachypnea and tachycardia should be immediately treated with ReSoMal	F	Child is in shock and is given IV fluid
The only acceptable method for the treatment of SAM is through 24-hour Inpatient Care.	F	SAM without medical complication is treated in Outpatient Care
All patients receive vitamin A on admission in Outpatient Care	F	Vitamin A is provided on week 4 or upon discharge; oedematous children are never given vitamin A until the oedema has resolved
F-100 can be used during stabilisation for children with SAM and complications	F	F-100 is given in transition and rehabilitation
F-100 contains iron	F	No iron in F-100
RUTF provides similar quantities of macronutrients and micronutrients than F-100 per 100 kcal taken	T	F-100 and RUTF have a similar composition (except for the iron)

9. What is the combination of criteria for referral from Inpatient Care to Outpatient Care for a child admitted with oedema +++: (1 point)
- a) Child clinically well and alert + Passed appetite test + Medical complications resolved + Bilateral pitting oedema resolved
 - b) Child clinically well and alert + Passed appetite test + Medical complications resolved + Bilateral pitting oedema resolving (if present at Inpatient Care admission)
 - c) Child clinically well and alert + Passed appetite test + Medical complications resolving + Bilateral pitting oedema resolving (if present at Inpatient Care admission) ---YES
 - d) Child clinically well and alert + Passed appetite test + Medical complications resolving + Bilateral pitting oedema resolved
10. Monitoring and reporting for CMAM inpatient management of SAM in children under 5: Complete the missing text in the below definitions (4 points, 1 point for each correct answer)
- a) The Inpatient Care Case-Fatality Rate last month in my hospital was 5% and measured the number of children with SAM who died last month _____ out of all children with SAM who were admitted in the hospital last month _____. It is a measure that indicates severity of illness upon admission and/or performance at the early stage of the treatment and/or of community screening and referral.
 - b) Cured Rate measures the number of ___children that have been successfully cured in a certain time period_____ out of ___all children that were discharged during that time period (discharged cured, died, defaulted, non-responded)_____. It is a measure that indicates performance or quality of care_____.
 - c) A defaulter in Inpatient Care is a child who had been admitted and received treatment for SAM in the hospital and left the hospital before approved referral to outpatient care or end of treatment at full recovery. After 2 days of absence the child is classified as a defaulter.
 - d) A returnee in Inpatient Care is a child who had been admitted and received treatment for SAM in the hospital and defaulted, but returns to the hospital to continue treatment during the same episode of SAM (duration of illness is on average 2 months).

GOOD LUCK and THANK YOU

Summary Sheet Pre- and Post-Course Test of the Case Management Training

#	Name participant	Position	Affiliation and origin	Result pre-course test (/20)	Result post-course test (/20)	Difference (+ or -/20)	Comment
1	Abdullahi	Medical officer SAM ward	FMOH Hospital, State Capital	11/20	18/20	+7/20	Great participant, with facilitator capacities
2							
3							
	Average			/20	/20	/20	All participants improved

Annex H: End of Training Evaluations

Facilitator Training Evaluation Place, Date

1. For each module or activity listed in the left column, mark the box Good, Medium, Weak that you think the facilitator course prepared you well for. Also, please share suggestions for improvement

	Good	Medium	Weak	Suggested improvements
<i>Principles of Care</i>				
<i>Initial Management</i>				
<i>Feeding</i>				
<i>Daily Care</i>				
<i>Monitoring, Problem Solving and Reporting</i>				
<i>Involving Mothers in Care</i>				
Video: Transformations				
Video: Emergency Treatment				
Video: Teaching about Feeding				
Video: Malnutrition and Mental Development				
Photograph examples and exercises				
Clinical Session				

Case Management Training Evaluation

Place, Date

1. Do you provide care for children with SAM in your job at your hospital? _____ Yes _____ No

What is your position? Physician _____ Nurse _____ Nutritionist _____

2. For each module or activity listed in the left column, mark the box that you think best describes it.

	Very Useful	Useful	Somewhat Useful	Useless
<i>Principles of Care</i>				
<i>Initial Management</i>				
<i>Feeding</i>				
<i>Daily Care</i>				
<i>Monitoring, Problem Solving and Reporting</i>				
<i>Involving Mothers in Care</i>				
Video: Transformations				
Video: Emergency Treatment				
Video: Teaching about Feeding				
Video: Malnutrition and Mental Development				
Photograph examples and exercises				
Clinical Sessions				

3. Which module was most difficult for you? Why?

4. What was good about the Case Management Training?

5. What was not good about the Case Management Training?

6. Are there any skills for managing SAM that you think should be added to the Case Management Training? What are they?

7. Please list any other comments or suggestions for improvement of the Case Management Training.

8. For each activity listed below, tick one box to indicate whether you thought the time spent on that activity was too short, adequate or too long.

Type of Activity	Time Spent Was:		
	Too Short	Adequate	Too Long
Written exercises followed by individual discussions of your work with a facilitator			
Photo exercises			
Videos			
Role-plays			
Group discussions			
Oral drills			
Clinical sessions			
Entire clinical training			
Slide presentations			

9. Based on what you have learnt about caring for children with SAM, what will you try to change or improve in your hospital?

Annex I: Training Course Report Outline

Facilitator Training

Justification

Objectives with place, dates and number of days

Participants summary profile: number, position, affiliation, state and/or hospital of origin

Brief description of activities and/or highlights

Training course materials, brief description. Did each participant receive a copy of all course materials to take home?

Evaluation summary

Overall Course Director comments and observations:

Comment on administrative issues, staff attitude and supplies at hospital, problems and how you solved them, constructive suggestions for future courses, etc.

Annex: List of participants and (co-)course directors, training agenda, list of training materials used.

Case Management Training

Justification

Objectives with place, dates and number of days

Participants summary profile: number, position, affiliation, state and/or hospital of origin

Brief description of activities and/or highlights:

Modules completion. Describe.

Organization of training sub-groups. Describe.

Number and profile of facilitators serving at course, and ratio of facilitators to participants.

Organization of Clinical Sessions. Describe.

Number of clinical sessions conducted; number of hours (per group) devoted to clinical sessions.

Training course materials, brief description. Did each participant receive a copy of all course materials to take home?

Evaluation summary

Pre-post test results and interpretation

Overall Course Director Comments and Observations:

Comment on administrative issues, staff attitude and supplies at hospital, problems and how you solved them, constructive suggestions for future courses, etc.

Annex: List of participants, facilitators and (co-)course directors, training agenda, list of training materials used.

Annex J: Training Course on Inpatient Management of Severe Acute Malnutrition, Slide Presentation

The slides below and on the following page may be used in a slide presentation. These slides will be useful to the Course Director on the first day of Facilitator Training, for the presentation described on pages 26–29 of this guide.

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

2011

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

- Teaches procedures in the national Community-Based Management of Severe Acute Malnutrition (CMAM) Guidelines
- Procedures are shown to reduce case fatality from more than 30% to less than 5%
- Training is for physicians and senior nurses (and nutritionists) in hospitals with Inpatient Care

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

<ul style="list-style-type: none"> → Participants in the Case Management Training are physicians and senior nurses (and nutritionists) who manage children with SAM in the hospital → _____ facilitators and _____ participants 	<ul style="list-style-type: none"> → Facilitator trainees will learn the procedures → Facilitator training: 4 days → Facilitators work in pairs → Each pair assigned a group of _____ participants
--	--

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Materials:

- Set of Seven Modules
- Photographs Booklet
- CMAM Manual and Operational Guide for Inpatient Care
- Facilitator Guide
- Clinical Instructor Guide
- Set of Laminated Job Aids for Inpatient Care
- Set of Forms and Checklists for Inpatient Care
- Two Slide Presentations
- Wall Charts
- Videos
- Support Reading

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Objectives of facilitator training:

- Learn the Case Management Training course content
- Practise teaching techniques
- Become familiar with SAM ward and plans for clinical practice
- Learn to work with co-facilitator
- Practise supportive communication to reinforce learning
- Plan how to handle problems

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Teaching methods:

Based on assumptions about learning:

- Instruction should be performance-based
- Active participation increases learning
- Immediate feedback increases learning
- Learning is increased when instruction is individualised
- Positive motivation is essential if learning is to take place

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Schedule:

- Facilitator Training is 4 days
- Case Management Training is 7 days
- Facilitator training will:
 - ✓ move quickly through modules
 - ✓ focus mainly on teaching techniques
 - ✓ include one clinical session

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

7

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Duties of a facilitator:

- Introduce each module
- Answer questions and assist participants while they work
- Provide individual feedback on completed exercises
- Conduct demonstrations and give explanations
- Conduct oral drills
- Lead and summarise video exercises and group discussions
- Coordinate role plays
- Summarise the modules
- Assist with clinical practice, as requested

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

8

TRAINING COURSE ON INPATIENT MANAGEMENT OF SEVERE ACUTE MALNUTRITION

Facilitator Guide:

- Checklist of instructional materials and supplies
- Guidelines for teaching each module:
 - ✓ procedures table
 - ✓ notes for each step of the procedures
 - ✓ grey boxes with special notes for nurses groups
 - ✓ blank box at end of section for additional notes
- 'Guidelines for all modules' at end
- Answers to exercises at end of each module

Training Course on Inpatient Management of Severe Acute Malnutrition, 2011

9

FACILIATOR GUIDE



Government of Sudan

**Training Course on
Inpatient Management of
Severe Acute Malnutrition**

**Children 6–59 Months with SAM
and Medical Complications**

June 2011

This modified version of the 2002 World Health Organisation's *Training Course on Inpatient Management of Severe Acute Malnutrition (SAM)* is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim Manual Community-Based Management of Severe Acute Malnutrition (November 2009)*. The training course is made possible by the generous support of the American people through the support of the Office of U.S. Foreign Disaster Assistance, Bureau for Democracy, Conflict and Humanitarian Assistance, and the Office of Health, Infectious Diseases, and Nutrition, Bureau for Global Health, United States Agency for International Development (USAID), under terms of Cooperative Agreement No. AID-OAA-A-11-00014, through the FANTA-2 Bridge, managed by FHI 360. The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.

Illustrations for modules: Susan Kress

Contents

Acknowledgements	iv
Acronyms and Abbreviations	vi
Introduction.....	1
What methods of instruction are used in this Case Management Training?.....	1
How is the Case Management Training conducted?.....	1
For whom is this Case Management Training intended?.....	1
What is a ‘facilitator’?	2
What, then, does a facilitator do?.....	2
How do you do these things?	3
What NOT to do.....	3
How can this <i>Facilitator Guide</i> help you?.....	4
Facilitator Guidelines for Module 1: Introduction.....	7
1. Introduce yourself and ask participants to introduce themselves.....	7
2. Take care of any necessary administrative tasks	7
3. Give an orientation on CMAM.....	7
4. Conduct a pre-course test	8
5. Introduce Module 1 and the Job Aids.....	8
6. Answer questions.....	8
7. Explain your role as facilitator	8
8. Have participants discuss their responsibility for care of children with SAM	9
9. Continue to the next module.....	9
Facilitator Guidelines for Module 2: Principles of Care.....	10
Preparation for the module.....	10
1. Introduce Module 2	11
2. Exercise A: Individual work followed by group discussion – Identifying signs of severe acute malnutrition in photographs	11
3. Reading, demonstration	13
4. Exercise B: Individual work followed by individual feedback – Determining z-scores.....	14
5. Exercise C: Individual work followed by group discussion – Determining whether a child should be admitted	15
6. Oral drill: Admissions criteria and z-scores	16
7. Reading and short answer exercise (group-checked)	17
8. Reading and short answer exercise (group-checked)	18
9. Reading and short answer exercise (self-checked).....	19
10. Video and photos: Transformations	19
11. Summary of the module	19
Facilitator Guidelines for Module 3: Initial Management.....	21
Preparation for the module.....	21
1. Introduce Module 3	22
2. Demonstration: Use of the Inpatient Management Record, Initial Management Page	23
3. Exercise A: Individual work followed by individual feedback – Identifying initial treatments needed and recording on the Inpatient Management Record.....	26

4.	Reading and short answer exercise.....	27
5.	Exercise B: Group and individual work – Preparing and measuring ReSoMal	27
6.	Exercise C: Individual and group work – Identifying more initial treatments needed and recording on the Inpatient Management Record	29
7.	Exercise D: Individual work followed by individual feedback – Selecting antibiotics and determining dosages.....	31
8.	Video: Emergency Treatment.....	31
9.	Exercise E: Individual work followed by individual feedback, then role-play and discussion – Briefing staff on a child’s conditions and needs	32
10.	Summary of the module	33
Facilitator Guidelines for Module 4: Feeding		35
	Preparation for the module.....	35
1.	Introduce Module 4	36
2.	Exercise A: Group work followed by group discussion – Preparing F-75 and F-100.....	36
3.	Reading and short answer exercise.....	37
4.	Drill: Determining amounts of F-75 to give.....	37
5.	Reading, demonstration using 24-Hour Food Intake Chart.....	38
6.	Short answer exercise	41
7.	Exercise B: Individual work followed by individual feedback – Determining F-75 feeding plans for the next day.....	41
8.	Exercise C: Individual work followed by individual feedback – Feeding RUTF and/or F-100 during transition.....	41
9.	Exercise D: Individual work followed by individual feedback – Feeding on RUTF and free-feeding on F-100 in rehabilitation.....	42
10.	Exercise E: Preparing a schedule for activities on the ward followed by group discussion	43
11.	Exercise F: Individual work followed by individual feedback – Planning feeding for the ward.....	43
12.	Exercise G: Group discussion – Preparing staff to do tasks related to feeding	44
13.	Additional materials – Managing infants 0–6 months old	45
14.	Summary of the module	45
Facilitator Guidelines for Module 5: Daily Care		46
	Preparation for the module.....	46
1.	Introduce Module 5	46
2.	Reading, short answer exercise, demonstration	47
3.	Reading and short answer exercise.....	48
4.	Reading and Exercise A: Individual work followed by individual feedback – Deciding on treatment for eye signs	49
5.	Exercise B: Group work followed by group feedback – Using the Daily Care page of the Inpatient Management Record	49
6.	Demonstration, reading and short answer exercise	50
7.	Exercise C: Individual work followed by individual feedback – Use of the Daily Care page and Monitoring Record.....	51
8.	Exercise D: Individual work followed by individual feedback – Reviewing Monitoring Records to identify danger signs.....	52
9.	Testing the appetite with RUTF	52
10.	Optional demonstration, reading and short answer exercise	52

11. Exercise E: Individual work followed by individual feedback – Preparing a weight chart	54
12. Summary of the module	54
Facilitator Guidelines for Module 6: Monitoring, Problem Solving and Reporting	56
Preparation for the module.....	56
1. Introduce Module 6	57
2. Reading and short answer exercises	57
3. Exercise A: Individual work followed by individual feedback – Identifying progress and problems with cases.....	58
4. Exercise B: Individual work followed by group discussion – Identifying causes and solutions of problems	58
5. Exercise C: Individual work followed by group discussion – Determining whether there is a problem with weight gain on the ward.....	59
6. Exercise D: Individual work followed by group discussion – Determining common factors in deaths	59
7. Reading and short answer exercise.....	60
8. Exercise E: Role-play – Problem-solving session.....	60
9. Group discussion – Results of monitoring food preparation and ward procedures.....	64
10. Group discussion – Reporting for SAM.....	65
11. Summary of the module	65
Facilitator Guidelines for Module 7: Involving Mothers in Care	67
Preparation for the module.....	67
1. Introduce Module 7	68
2. Exercise A: Group discussion – Ways to involve mothers and other family members	69
3. Exercise B: Role-play – Teaching a mother to bathe or feed a child	69
4. Video: Teaching mothers about home feeding, Exercise C: Group discussion – Teaching mothers to feed children at home.....	70
5. Reading and video: Malnutrition and mental development	71
6. Exercise D: Role-play – Giving discharge instructions	71
7. Optional Exercise E: Group discussion – Issues related to early discharge.....	73
8. Summary of the module	73
Facilitator Guidelines for All Modules	75
1. Techniques for motivating participants	75
2. Techniques for relating modules to participants’ jobs	78
3. Techniques for adapting materials for nurses (and nutritionists).....	78
4. Techniques for assisting co-facilitators	78
5. When participants are working.....	79
6. When providing individual feedback	79
7. When leading a group discussion	80
8. When coordinating a role-play	80

Acknowledgements

This field training course is the practical application of the 1999 World Health Organisation (WHO) publication *Management of severe malnutrition: a manual for physicians and other senior health workers*, and WHO is grateful to all those involved in the production of this fundamental training course. WHO would particularly like to thank ACT International, USA, and especially Ms P. Whitesell Shirey for having developed the manuscript of the Training Course, together with Ms F. Johnson, who also acted as the course co-ordinator during the field testing. WHO acknowledges with all gratitude the substantial technical contribution and advice of Professor A. Ashworth-Hill from the London School of Hygiene and Tropical Medicine, who has also acted as one of the course facilitators. Special thanks are extended to Dr S. Khanum (former Regional Adviser for Nutrition and Food Safety, WHO Regional Office for South-East Asia in New Delhi), Department of Nutrition for Health and Development, for her technical contribution, comments and advice throughout the development of the training modules and also for organising the field testing as a course director.

WHO also expresses its appreciation for helpful contributions from course facilitators during the field testing of the training modules, notably, Dr S. Aiyer, India; Dr T. Nu Shwe, Myanmar; Dr E. Poskitt, UK; Dr T. Ahmed, Dr S. Shakur and Dr K. Jamil, Bangladesh; and all the course participants from Bangladesh, Bhutan, Indonesia, Myanmar, and Nepal.

WHO expresses sincere gratitude to Professor J.C. Waterlow, UK, and to Professor A. Jackson, University of Southampton, UK, for their technical support and expertise during preparatory meetings held in London in November 1999 and September 2000.

Also acknowledged are contributions of WHO staff in the Department of Nutrition for Health and Development, Dr G.A. Clugston and Dr M. de Onis, and support from the Department of Child and Adolescent Health and Development.

WHO would like to thank the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) for conducting the field testing of the training modules.

The financial support of the governments of the United Kingdom of Great Britain and Northern Ireland (Department for International Development) and the Kingdom of The Netherlands toward the development and publication of this Training Course is also gratefully acknowledged.

This modified version of the training materials for the course on inpatient management of severe acute malnutrition (SAM) is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim National Guidelines for the Community-Based Management of Severe Acute Malnutrition (November 2009)*.

The GOS wants in particular to thank Professor Mabyou Mustafa, course director and team leader of the review of the training materials, who skilfully guided all reviewers, facilitators and trainees. The GOS also thanks Community-Based Management of Acute Malnutrition (CMAM) technical working group members Dr Ali Arabi and Dr Elamin Osman, who acted as reviewers and assisted the course director during the facilitator and case management training during which the training materials were field tested.

Also acknowledged are the valuable contributions of the FMOH National Nutrition Program, Ms Salwa Sorkatti, Director, and Ms Fatima Aziz, Assistant Director, for facilitating the overall review and field testing of the training materials, and of Ms Amira M. Almunier and Ms Ibtihalat M. Elidirisi for participating in the review. Special thanks are extended to Dr Sofia Mohamed, Dr Amal Abdel Bagi, Dr Badrelddin S. Ali, Ms Amira M. Almunier, Dr Karrar Makki, Dr Sumaia Mohamed Alasad, Dr Amani Hashim Algalal, Dr Fathia Mohamed AbdelMagid, Maha FadelAllah and Ms Wafaa Badawi for their participation as facilitators, clinical instructors and nutrition instructors in the training. Finally, thanks go to all the participants in the Case Management Training for their valuable comments during the field testing of the training materials. Thanks are extended to Gaffar Ibn Auf Children Hospital for facilitating and preparing the site for the clinical training sessions.

Special thanks are extended to UNICEF and the CMAM support team members from UNICEF, WHO, the World Food Programme and Ahfad University for Women for their valuable contributions in the review of the training materials.

The financial support from the United States Agency for International Development (USAID) Bureau for Global Health, Office of Health, Infectious Diseases, and Nutrition, and the USAID Bureau for Democracy, Conflict, and Humanitarian Assistance Office of U.S. Foreign Disaster Assistance, and the technical support from the FHI360/Food and Nutrition Technical Assistance II Project (FANTA-2), and its sponsored partners from Ghana, Niger and South Sudan, for the completion of the training materials are also gratefully acknowledged.

Acronyms and Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
AWG	average daily weight gain
BMI	body mass index
cm	centimetre(s)
CMAM	Community-Based Management of Acute Malnutrition
CMV	combined mineral and vitamin mix
dl	decilitre(s)
ENA	Essential Nutrition Actions
FMOH	Federal Ministry of Health
g	gram(s)
GOS	Government of Sudan
Hb	haemoglobin
HFA	height-for-age
HIV	human immunodeficiency virus
IGF	insulin growth factor
IM	intramuscular
IMNCI	Integrated Management of Neonatal and Childhood Illness
IU	international unit(s)
IV	intravenous
IYCF	infant and young child feeding
kcal	kilocalorie(s)
kg	kilogram(s)
L	litre(s)
LOS	length of stay
M&R	monitoring and reporting
MAM	moderate acute malnutrition
ml	millilitre(s)
mm	millimetre(s)
MUAC	mid-upper arm circumference
µg	microgram(s)
NG	nasogastric
NGT	nasogastric tube
OPD	outpatient department
ORS	oral rehydration solution
PCV	packed cell volume
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission of HIV
QI	quality improvement
ReSoMal	Rehydration Solution for Malnutrition
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SFP	supplementary feeding programme
TB	tuberculosis
UNSCN	United Nations Standing Committee on Nutrition
WFA	weight-for-age
WFH	weight-for-height
WFP	World Food Programme
WHO	World Health Organisation

Introduction

What methods of instruction are used in this Case Management Training?

This Case Management Training uses a variety of methods of instruction, including reading, written exercises, discussions, role-plays, video, demonstrations and practice in a real severe acute malnutrition (SAM) ward. Practice, whether in written exercises or on the ward, is considered a critical element of instruction.

How is the Case Management Training conducted?

- Small groups of participants are led and assisted by ‘facilitators’ as they work through the course modules (booklets that contain units of instruction). The facilitators are not lecturers, as in a traditional classroom. Their role is to answer questions, provide individual feedback on exercises, lead discussions, structure role-plays, etc.
- The modules provide the basic information to be learnt. Information is also provided through demonstrations, photographs and videotapes (to strengthen knowledge).
- The modules are designed to help each participant develop the specific skills necessary for case management of children with SAM. Participants develop these skills as they read the modules, observe live and videotaped demonstrations and practise skills in written exercises, group discussions, oral drills and role-plays (to develop and practise skills, with appropriate attitudes).
- After practising skills in the modules, participants practise the skills in a real hospital setting, with supervision to ensure correct patient care. A clinical instructor supervises the clinical sessions in the SAM ward of the hospital.
- To a great extent, participants work at their own pace through the modules, although in some activities, such as role-plays and discussions, small groups work together.
- Each participant discusses any problems or questions with a facilitator, and receives prompt feedback from the facilitator on completed exercises. (Feedback includes telling the participant how well he/she has done the exercise and what improvements could be made.)

For whom is this Case Management Training intended?

This Case Management Training is intended for both physicians and nurses (and nutritionists) who manage children with SAM with poor appetite and/or medical complications in Inpatient Care in hospitals. Physicians and nurses (and nutritionists) must work closely together as a team, so they should have consistent training in the use of the same case management practices. Because of their different job responsibilities and backgrounds, however, nurses (and nutritionists) and physicians may find different parts of this Case Management Training more interesting and applicable to their work. Nurses (and nutritionists), in particular, may find that some parts of this Case Management Training are more detailed than they need, or that they would like more explanation or time to understand certain concepts. Dieticians and nutritionists working in hospital may also benefit from this Case Management Training, with a specific focus on feeding.

Because of their different backgrounds and interests, nurses (and nutritionists) and physicians are typically assigned to separate small groups. However, nurses (and nutritionists) and

physicians from the same hospital may meet together to work on planning exercises for their hospital.

Throughout the *Facilitator Guide* there are special sections for ‘nurses (and nutritionists) groups (when appropriate)’ printed in shaded boxes. These notes suggest how facilitators can adapt the course materials for nurses (and nutritionists) groups as needed. Some of the suggestions may also be used for groups of physicians if they are having difficulty understanding a concept or doing the work at a suitable pace.

What is a ‘facilitator’?

A facilitator is a person who helps the participants learn the skills presented in the Case Management Training. The facilitator spends much of his/her time in discussions with participants, either individually or in small groups. For facilitators to give enough attention to each participant, a ratio of 1 facilitator to 3–6 participants is desired. In your assignment to teach this Case Management Training, **you** are a facilitator.

As a facilitator, you need to be very familiar with the material being taught. It is your job to give explanations, do demonstrations, answer questions, talk with participants about their answers to exercises, conduct role-plays, lead group discussions, assist the clinical instructor with clinical practice in hospital and generally give participants any help they need to successfully complete the Case Management Training. You are not expected to teach the content of the Case Management Training through formal lectures (nor is this a good idea, even if this is the teaching method to which you are most accustomed).

What, then, does a facilitator do?

As a facilitator, you do **three basic things**.

1. You **INSTRUCT**:

- Make sure that each participant understands how to work through the materials and what he/she is expected to do in each module and each exercise.
- Answer the participant’s questions when they are asked.
- Explain any information that the participant finds confusing, and help him/her understand the main purpose of each exercise.
- Lead group activities, such as group discussions, oral drills, video exercises and role-plays, to ensure that learning objectives are met.
- Promptly review each participant’s work and give correct answers.
- Discuss with the participant how he/she obtained his/her answers in order to identify any weaknesses in the participant’s skills or understanding.
- Provide additional explanations or practice to improve skills and understanding.
- Help the participant understand how to use skills taught in the Case Management Training in his/her own hospital.
- Assist the clinical instructor as needed during clinical sessions.

2. You **MOTIVATE**:

- Compliment the participant on his/her correct answers, improvements or progress.
- Make sure that there are no major obstacles to learning (such as too much noise or not enough light).

3. You **MANAGE**:

- Plan ahead and obtain all supplies needed each day, so that they are in the classroom or taken to the hospital ward when needed.
- Monitor the progress of each participant.

How do you do these things?

- Show enthusiasm for the topics covered in the Case Management Training and for the work that the participants are doing.
- Be attentive to each participant's questions and needs. Encourage the participants to come to you at any time with questions or comments. Be available during scheduled times.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers or not turning pages. These are clues that the participant may need help.
- Promote a friendly, cooperative relationship. Respond positively to questions (by saying, for example, 'Yes, I see what you mean' or 'That is a good question'). Listen to the questions and try to address the participant's concerns, rather than rapidly giving the 'correct' answer.
- Always take enough time with each participant to answer his/her questions completely (that is, so that both you and the participant are satisfied).

What **NOT** to do.....

- During times scheduled for clinical training activities, do not work on other projects or discuss matters not related to the Case Management Training.
- In discussions with participants, avoid using facial expressions or making comments that could cause participants to feel embarrassed.
- Do not call on participants one by one as in a traditional classroom, with the potential for an awkward silence when a participant does not know the answer. Instead, ask participants to voluntarily respond, or do drills that require participants one by one to give quick answers to simple questions. If a participant can't answer the question quickly enough or gives the wrong answer, move on to the next participant.
- Do not lecture about the information that participants are about to read.
- Give only the introductory explanations that are suggested in the *Facilitator Guide*. If you give too much information too early, it may confuse participants. Let them read it for themselves in the modules.
- Do not review text paragraph by paragraph. (This is boring and suggests that participants cannot read for themselves.) As necessary, review the highlights of the text during individual feedback or group discussions.
- Avoid being too much of a showman. Enthusiasm (and keeping the participants awake) is great, but learning is most important. Keep watching to ensure that participants are understanding the materials. Difficult points may require you to slow down and work carefully with individuals.
- Do not be condescending. In other words, do not treat participants as if they are children. They are adults.
- Do not talk too much. Encourage the participants to talk.

- Do not interrupt or distract the clinical instructor when he/she is conducting a clinical session. He/she has certain objectives to cover in a limited time.
- Do not be shy, nervous or worried about what to say. This *Facilitator Guide* will help you remember what to say. Just use it!

How can this *Facilitator Guide* help you?

This *Facilitator Guide* will help you teach the course modules, including the video segments. For each module, this *Facilitator Guide* includes the following:

- A list of the procedures to complete the module, highlighting the type of feedback to be given after each exercise
- A list of any special supplies or preparations needed for activities in the module
- Guidelines describing:
 - How to do demonstrations, role-plays and group discussions
 - How to conduct the video exercises
 - How to conduct oral drills
 - Points to make in group discussions or individual feedback
- Notes on how to adapt the procedures for nurses (and nutritionists) groups, if needed
- A place to write down points to make in addition to those listed in the guide

At the back of this *Facilitator Guide* is a section titled ‘Facilitator Guidelines for All Modules’. This section describes training techniques to use when working with participants during the Case Management Training. It provides suggestions on how to work with a co-facilitator. It also includes important techniques to use when:

- Participants are working individually
- You are providing individual feedback
- You are leading a group discussion
- You are coordinating a role-play

To prepare yourself for each module, you should:

- Read the module and work the exercises.
- Check your answers by referring to the answers (provided at the end of each module).
- Read in this *Facilitator Guide* all the information provided about the module.
- Plan with your co-facilitator how work on the module will be done and what major points to make.
- Collect any necessary supplies for exercises in the module, and prepare for any demonstrations or role-plays.
- Think about sections that participants might find difficult and questions they may ask.
- Plan ways to help with difficult sections and answer possible questions.
- Ask participants questions that will encourage them to think about using the skills in their own hospitals.

Checklist of Instructional Course Materials Needed in Each Small Group

Item needed	Number needed
<i>Facilitator Guide</i>	1 each for the Course Director, the clinical instructor, and all facilitators
Government of Sudan Interim Manual: Community-Based Management of Severe Acute Malnutrition, Version 1.0 (November 2009) (CMAM Manual)	1 for all
Set of seven training modules	1 set for all
<i>Photographs</i> booklet	1 for all
Set of Job Aids for Inpatient Care	1 set for all
Set of forms used in Inpatient Care	1 set for all, plus a few extras
Set of checklists used in Inpatient Care	1 set for all
Set of wall charts used in Inpatient Care	1 set for all (or 1 set for each small group)
Inpatient Management Record, all six pages, stapled	3 for all, plus a few extras
Inpatient Management Record, enlarged format, all six pages, stapled	1 set for each small group
Extra copies of Initial Management page of Inpatient Management Record, loose (for use in exercises)	4 for all, plus a few extras
Extra copies of Daily Care page of Inpatient Management Record, loose (for use in exercises)	3 for all, plus a few extras
Extra copies of Monitoring, Problem Solving and Reporting page of Inpatient Management Record, loose (for use in exercises)	2 for all, plus a few extras
Video films	1 set for all
Slide presentations	1 set for all
Support reading (Includes United Nations Joint Statements on SAM 2007 and 2009)	1 set of soft copies on CD Rom/flash drive for all
Laptop computer and digital projector	1 set for the group (or 1 set for each small group)
Schedule for the Facilitator Training	1 for all
Schedule for the Case Management Training	1 for all
Schedule for clinical sessions	1 for all
Pre- and post-course test for Case Management Training	2 for all
Facilitator Practice Assignment Grid	1 for all facilitators
End-of-course evaluation	1 for all in the Facilitator Training and Case Management Training
Registration form	1 for all
Flash drives for sharing soft copies of all course materials	1 for all

Checklist of Other Supplies Needed

Supplies Needed for Each Person

- Name tag and holder
- 2 pens
- 2 pencils with erasers
- Paper
- Highlighter
- Folder or large envelope to collect answer sheets
- Calculator (on personal mobile phones)

Supplies Needed for Each Small Group

- Paper clips
- Pencil sharpener
- Stapler and staples
- Scissors
- 1 roll masking tape
- Extra pencils and erasers
- Flipchart pad and markers *OR* blackboard and chalk
- Laptop computer and digital projector (if possible)

In addition, certain exercises require special supplies, such as ingredients for feeding formulas (see alternative recipes), commercial F-75 and F-100 therapeutic milk, combined mineral and vitamin mix (CMV), oral rehydration solution (ORS) and Rehydration Solution for Malnutrition (ReSoMal), mixing containers and spoons, a blender and a hot plate for cooking. These supplies are listed at the beginning of the guidelines for each module. Be sure to collect the supplies needed from your Course Director before these exercises.

Also, schedule the pre-course test at the start of the Case Management Training and a post-course test and an end-of-course evaluation at the end of the Case Management Training.

Facilitator Guidelines for Module 1: Introduction

Procedures*	Feedback
1. Introduce yourself and ask participants to introduce themselves.	-----
2. Take care of any necessary administrative tasks.	-----
3. Give an orientation on the CMAM and discuss the strategy of integration and scale-up of CMAM implementation in your country and/or state.	-----
4. Conduct the pre-course test of the Case Management Training.	-----
5. Distribute Module 1, Introduction , the CMAM Manual and the Job Aids. Introduce Module 1, Introduction . Have participants read Module 1, pages 1–8 and look at the contents of the job aids and the CMAM Manual.	-----
6. Answer any questions about Module 1, Introduction .	-----
7. Explain your role as facilitator.	-----
8. Have the participants tell where they work and describe briefly their responsibility for care of children with SAM.	-----
9. Continue immediately to the next module, Module 2, Principles of Care .	-----

* Throughout this *Facilitator Guide*, further information for each of the numbered procedures in the tables is given on subsequent pages.

1. Introduce yourself and ask participants to introduce themselves

Introduce yourself as a facilitator of this Case Management Training and write your name on the blackboard or flipchart. As the participants to introduce themselves and to write their names on the blackboard or flipchart. (If possible, also have them write their names on large name cards at their places.) Leave the list of names where everyone can see it. This will help you and the participants learn each other's names.

2. Take care of any necessary administrative tasks

There may be some administrative tasks or announcements that you should address. For example, you may need to explain the arrangements that have been made for lunches, transportation of participants or payment of per diem.

This is a good time to distribute the Case Management Training schedule and point out when your group will be visiting the hospital's Inpatient Care (SAM ward) for clinical practice.

3. Give an orientation on CMAM

Provide an overview on CMAM, and then lead a group discussion on the CMAM strategy of integration and scale-up in the country. Let the participants know that the CMAM overview presentation is available in **Module 1, Introduction**, for further reference. In the group discussion session, participants can ask question about CMAM.

4. Conduct a pre-course test

Explain that at the beginning and at the end of the Case Management Training a test will be conducted to evaluate the quality of the training, the learning process of the participants as well as their individual capacity levels.

Inform participants that the test will take no longer than half an hour. The questions will reflect clinical knowledge and skills that health care providers are expected to have when involved in CMAM. Inform participants that a similar test will be conducted at the end of the Case Management Training.

Introduce and conduct the pre-course test.

5. Introduce Module 1 and the Job Aids

Explain that the short **Module 1, Introduction**, briefly describes the problem of SAM in children and the need for improved case management. It also describes the Case Management Training methods and learning objectives.

Explain that this module, like all the modules that the participants will be given, is theirs to keep. As they read, they can highlight important points or write notes on the pages if they wish.

Explain that the modules are designed to accompany the Inpatient Care job aids. The CMAM Manual is also a useful reference. Participants will be instructed to refer to the job aids and the CMAM Manual. Point out the box on the [page 1](#) of **Module 1, Introduction**, that refers them to the job aids.

Ask the participants to read **Module 1, pages 1–8** now. When instructed to do so, they should also look at the contents of the job aids and browse through the CMAM Manual to familiarise themselves with the manual's chapters and annexes. They should continue reading to the end of the **Module 1**.

6. Answer questions

When everyone has finished reading, ask if there are any questions about **Module 1**. For example, participants may have questions about the equipment and supplies listed in Annex A. They might be concerned that some items are not available in their hospitals, or they may wonder why certain items are needed. Explain that the need for each item will be explained in the modules and in the guidelines. Explain that many hospitals lack some of these items and need to obtain them. There will be opportunities in the Case Management Training to discuss problems like lack of supplies.

7. Explain your role as facilitator

Explain to participants that, as facilitator (and along with your co-facilitator, if you have one), your role throughout this Case Management Training is to:

- Guide them through the Case Management Training activities
- Answer questions as they arise or find the answer if you do not know
- Clarify information they find confusing

- Give individual feedback on exercises where indicated
- Lead group discussions, drills, video exercises and role-plays
- Observe and help as needed during their practice in clinical sessions

Explain that there will be a separate clinical instructor who will organise and lead the clinical sessions held at the hospital.

8. Have participants discuss their responsibility for care of children with SAM

Explain to participants that you would like to learn more about their responsibilities for caring for children with SAM. This will help you understand their situations and be a better facilitator for them. For now, you will ask each of them to tell where he/she works and what his/her job is. During the Case Management Training, you will further discuss what they do in their hospitals.

Begin with the first participant listed on the flipchart and ask the two questions below. Note the answers on the flipchart.

- What is the name of the hospital where you work and where is it?
- What is your position or responsibility for children with SAM?

Note: Have the participant remain seated. You should ask the questions and have the participant answer you, as in a conversation. It is very important at this point that the participant feels relaxed and not intimidated or put on the spot. (Though it may be interesting to you to ask the participant more questions about his/her responsibilities, do **not** do that now. This should not be a long discussion.)

9. Continue to the next module

Proceed directly to **Module 2, Principles of Care**.

Facilitator Guidelines for Module 2: Principles of Care

Procedures	Feedback
1. Distribute Module 2, Principles of Care , the <i>Photographs</i> booklet and the complete set of Job Aids for Inpatient Care. Introduce the module.	-----
2. Ask the participants to read <u>pages 1–7</u> of the module and complete Exercise A using the <i>Photographs</i> booklet.	Group discussion
3. Ask the participants to read <u>pages 10–19</u> of the module. Nurses (and nutritionists) groups: Conduct a demonstration of how to measure mid-upper arm circumference (MUAC) and how to use the weight-for-height (WFH) look-up table.	-----
4. Ask the participants to complete Exercise B (<u>page 20</u>) using their WFH look-up table.	Individual feedback
5. Ask the participants to read <u>pages 21–22</u> of the module and complete Exercise C (<u>page 23</u>).	Group discussion
6. Lead a group oral drill on classification of SAM.	Drill
7. Ask the participants to read <u>pages 24–25</u> of the module and complete the short answer exercise on <u>page 26</u> .	Group-checked
8. Ask the participants to read <u>pages 27–29</u> of the module and complete the short answer exercise on <u>page 30</u> .	Group-checked
9. Ask the participants to read <u>pages 31–32</u> and refer to the job aids and/or CMAM Manual as instructed. Ask them to complete the short answer exercise on <u>page 33</u> and check their own answers. Then ask them to finish reading the module.	Self-checked
10. Show the video: Transformations. Discuss the video and <u>Photos 21–29</u> .	Group discussion
11. Summarise the module.	-----

Preparation for the module

Prepare carefully by reviewing the exercises and discussing with your co-facilitator how to work together to lead the group discussions, role-plays, etc. This section of the *Facilitator Guidelines* describes special supplies or preparation needed for this module.

At the end of this module, you will show a video showing signs of SAM and transformations that can occur with correct case management of children with SAM. Depending on arrangements made by your Course Director, you may need to take the participants to another room to view the video. Find out what arrangements have been made. Make sure the following equipment and supplies are available. Learn how to operate the equipment and practise using it:

- Video
- Laptop computer
- Digital projector
- Electrical outlets, cables

1. Introduce Module 2

Explain that **Module 2** describes how to recognise a child with SAM and how to measure the child's MUAC, weight and height/length, and how to classify SAM. The module gives an overview of correct case management for children with SAM and provides a rationale for the essential components of case management. The module also describes how the child with SAM is different, and why this affects care. Participants will use their *Photographs* booklets in this module to see signs of SAM. Later, in the clinical session, they will look for these signs in children in hospital.

Ask participants to read pages 1–7 of **Module 2** and complete Exercise A on page 8 using the *Photographs* booklet. Encourage participants to ask you questions while they are reading or completing the exercise.

Nurses (and nutritionists) groups (when appropriate): Ask the group to read **Module 2**, pages 1–19 and tell you when they have finished. Discuss several photos in Exercise A as a group before asking the participants to work individually on the exercise. This exercise can be very time-consuming. If you expect that the group will work slowly, you may assign two or three photos to each person rather than having everyone review all of the photos. Then the assigned person can present those photos in the group discussion at the end of the exercise.

2. Exercise A: Individual work followed by group discussion – Identifying signs of severe acute malnutrition in photographs

Possible answers for this exercise are provided in the back of the **Module 2**. The answers are also repeated in this guide for your convenience. Refer to the answers as you lead this discussion. Remember that the answers given are possible answers. There is room for discussion of almost all of the photos.

In many cases, the degree of a problem cannot accurately be judged without examining the child.

First point out the signs in Photo 1 (answered as an example in the exercise).

Next, for each photo in turn, ask a different participant what signs are visible. Ask the more confident participants first. If a participant does not mention all of the signs, ask 'Does anyone see another sign'?

Avoid discussing irrelevant signs at length. Remind them to look for: severe wasting, oedema, dermatosis and eye signs.

Possible Answers to Exercise A:

- Photo 1: Moderate oedema (++) seen in feet and lower legs. Severe wasting of upper arms. Ribs and collar bones clearly show.
- Photo 2: Severe dermatosis (+++). Note fissure on lower thigh. Moderate oedema (++) at least. Feet, legs, hands and lower arms appear swollen. The child's face is not fully shown in the photo, but the eyes may also be puffy, in which case the oedema would be severe (+++).
- Photos 3 and 4: These show the front and back of the same child. The child has severe wasting. From the front, the ribs show, and there is loose skin on the arms and thighs. The bones of the face clearly show. From the back, the ribs and spine show; folds of skin on the buttocks and thighs look like 'baggy pants'.
- Photo 5: Generalised oedema (+++). Feet, legs, hands, arms and face appear swollen. Probably moderate (++) dermatosis. Several patches are visible, but you would have to undress the child to see if there are more patches or any fissures. There may be a fissure on the child's ankle, but it is difficult to tell.
- Photo 6: Severe wasting. The child looks like 'skin and bones'. Ribs clearly show. The child's upper arms are extremely thin with loose skin. (*Also note the sunken eyes, a possible sign of dehydration, which will be discussed later.*) There is some discolouration on the abdomen, which may be mild dermatosis (+); it is difficult to tell from the photo.
- Photo 7: Mild dermatosis (+). This child has skin discolouration, often an early skin change in malnutrition. There is some wasting of the upper arms, and the shoulder blades show, but wasting does not appear severe.
- Photo 8: Pus, a sign of eye infection.
- Photo 9: Corneal clouding, a sign of vitamin A deficiency.
- Photo 10: Bitot's spot, a sign of vitamin A deficiency. Inflammation (redness), a sign of infection.
- Photo 11: Corneal clouding, a sign of vitamin A deficiency. The irregularity in the surface suggests that this eye almost certainly has an ulcer.
- Photo 12: Corneal ulcer (indicated by arrow), emergency sign of vitamin A deficiency. If not treated immediately with vitamin A and atropine, the lens of the eye may push out and cause blindness. This photo also shows inflammation, a sign of infection.
- Photo 13: Since only the legs are visible, we cannot tell the extent of oedema. Both feet and legs are swollen, so it is at least moderate (++) . Notice the 'pitting' oedema in lower legs.

Photo 14: Moderate (++) dermatosis. Note patches on hands and thighs. You would have to undress the child to see how extensive the dermatosis is. Generalised oedema (+++). Legs, hands, arms and face appear swollen.

Photo 15: Severe (+++) dermatosis and wasting (upper arms). Moderate (++) oedema (both feet, lower legs, possibly hands).

Point out the following additional photos and discuss them in relation to eye signs.

Photo 16 shows a photophobic child; his eyes cannot tolerate light due to vitamin A deficiency. Point out that the child's eyes must be opened gently for examination. He is likely to have corneal clouding as in Photo 9.

For contrast, Photo 17 shows a baby with healthy, clear eyes.

At the end of the discussion, ask participants to review the answers to the exercise in the back of the module. The answers will explain how to carefully weigh and measure a child. Participants will then learn how to use the information on MUAC, weight and height and presence of oedema to determine whether a child has SAM and medical complications. Hold up the WFH look-up table and the admission and discharge criteria job aid, and explain that participants will need to refer to this. Explain when to use MUAC, when to use weight-for-length and when to use WFH.

3. Reading, demonstration

Some groups will easily understand the reading and how to use the WFH look-up table. These groups should complete the reading through page 19 and go on to Exercise B independently.

Nurses (and nutritionists) groups, as well as some other groups, may need a demonstration of how to use the WFH look-up table.

Demonstration for nurses (and nutritionists) groups (when appropriate): Before Exercise B, review the content of Section 4.3 of **Module 2** on pages 18–19 and demonstrate how to use the WFH look-up table. Hold up the card and point to the appropriate columns as you speak. Talk through the examples on page 19 of **Module 2**. Be sure that participants understand that the left side of the card is for boys and the right is for girls. Show how the lowest weights are in the **outside** columns on both the boys’ and girls’ sides, furthest away from the median. Explain when to use weight-for-length and when to use WFH.

Talk through several more examples, such as the following. Ask a participant to tell you the z-score:

Girl, < 2 years, 73.0 cm, 7.4 kg	= -2 z-score
Boy, > 2 years, 94.0 cm, 11.0 kg	= -3 z-score
Girl, < 2 years, 67.2 cm, 5.8 kg	= -3 z-score
*Boy, > 2 years, 75.0 cm, 7.4 kg	< -2 z-score
*Girl, > 2 years, 81.0 cm, 7.9 kg	< -3 z-score

Participants may be confused by negative numbers, so use an example of a boy who is under 2 years and 70 cm in length. Ask participants to look along the row of weights and check the top of the column each time, so they see that 8.6 kg is median, 7.9 kg is -1 z-score, 7.3 kg is -2 z-score, 6.8 kg is -3 z-score, etc. Verify if they used the WFH table of length instead of the height. Use this example to show that a child who is -3 z-score has a lower WFH than a child who is -2 z-score. Suggest that, if participants ever forget about the negative numbers, they can always look at the weights and work out the system for themselves. Ask what the nutrition status of the child will be if the child’s weight is as indicated in the column of +2 or +3 z-score.

*When a weight falls between the weights listed on the card, it may help to first point on the card to the space between the columns where the child’s weight falls. Then look at the top of those columns to see which z-scores the weight lies **between**. Then look back at the weights to see where the sign should go. In the example of the boy who is 73 cm, suppose that his weight is 7.6 kg, which is between 7.3 kg (-3 z-score) and 7.9 kg (-2 z-score). The weight 7.6 kg is obviously not < 7.2 kg, but < 7.7 kg, so the score is written < -2 z-score.

4. **Exercise B: Individual work followed by individual feedback – Determining z-scores**

Since this is the first time that you will give individual feedback to the participants, be sure to make each participant feel comfortable. Some techniques to use while giving individual feedback are described in the ‘When providing individual feedback’ subsection under ‘Facilitator Guidelines for All Modules’ at the end of this guide.

Participants may not be familiar with z-scores. If a participant is interested in the concept of z-scores, encourage him/her to read Annex A of **Module 2**. If a participant is uncomfortable with statistics, reassure him/her that a complete understanding of z-scores is not necessary. The important thing is to know how to use the WFH look-up table to determine how the

child's weight compares to other children's weight of the same length or height. Children whose z-score is less than -3 are considered to have SAM.

Compare the participant's answers to those given on the answer sheet for this exercise. Discuss any differences and correct any misunderstandings. If necessary, make up another example and have the participant try it. For example, ask 'If a girl is ___ cm long and weighs ___ kg, what is her z-score?'

Point out the instructions at the top of each page of the WFH look-up table. These instructions state that if a child is under 2 years old, or less than 87 cm tall and his/her age is unknown, measure length while the child is lying down. The instructions also state that if a child is 2 years old or older, or at least 87 cm tall and his/her age is unknown, measure height while standing up. If a child 2 years old or older, or 87 cm tall or taller, cannot stand up, e.g., if the child is too weak to stand, measure length while the child is lying down and subtract 0.7 cm from the length to arrive at a comparable height.

Ask the participant to look at the answers of Exercise B and ask him/her to read pages 21–22 of **Module 2** and complete Exercise C on page 23.

5. **Exercise C: Individual work followed by group discussion – Determining whether a child should be admitted**

Participants look at photos and use the following criteria to decide whether a child should be classified as having SAM. They should decide to classify a child as SAM if they have:

- Oedema of both feet (+ oedema or worse ++ or +++), *and/or*
- MUAC less than 115 mm, *or*
- WFH < -3 z-score

Further explain that children with SAM and medical complications (anorexia or poor appetite, intractable vomiting, convulsions, lethargy or not alert, unconsciousness, hypoglycaemia, high fever, hypothermia, severe dehydration, lower respiratory tract infection, severe anaemia, eye signs of vitamin A deficiency, skin lesion –see Table 2 on page 3 of the CMAM Manual, Case Definitions of Medical Complications with SAM) should be treated for the management of SAM in Inpatient Care. As soon as children 6–59 months are stabilised and their medical complications are resolving, oedema decreasing, appetite regained, consistent weight gain and clinically well and alert, they are referred to Outpatient Care to continue treatment. Children 6–59 months classified as SAM without medical complications or severe oedema (+++) who are clinically well and alert should be treated for SAM in Outpatient Care.

For each photo in turn, ask a different participant what the child's z-score or MUAC is, whether or not there is oedema of both feet and what decisions should be made regarding how the child should be classified as having SAM, and whether he or she should be admitted to Outpatient Care or Inpatient Care. Add to the discussion as needed based on the comments below. (These comments are in the answer sheet provided.)

Photo 18: This child should be classified as having SAM. Her MUAC is > 115 mm and her weight-for-length is > -3 z-score, but she has oedema of both feet, as well as the lower legs (at least moderate [++] oedema). If the child has appetite and

no medical complications, she is admitted to Outpatient Care. If the child has no appetite or medical complications, then she is admitted to Inpatient Care.

Photo 19: This child should be classified as having SAM. Her weight-for-length is < -3 z-score and MUAC is < 115 mm. The child has no apparent oedema. After testing the appetite and checking for signs of medical complications, it will be decided if the child will be admitted to Inpatient Care or Outpatient Care.

Photo 20: This child should be classified as having SAM. He has a MUAC < 115 mm and WFH < -3 z-score. The child has no apparent oedema. Point out that if the child has a good appetite and no medical complications, he should be treated in Outpatient Care. If there is poor appetite or if there are medical complications, he should be treated in Inpatient Care.

It would be important to remove his shirt to examine him. Notice that the mother in this photo is also extremely thin.

After discussing the photos in relation to the classification of SAM and admissions criteria recommended for Inpatient Care and Outpatient Care, discuss the admissions criteria currently used in the participants' own health facilities for children with SAM. For example, ask:

- What admissions criteria are used for children with SAM in Inpatient Care in your hospitals? What are the reasons for these criteria?
- Would the children in Photos 18, 19 and 20 be admitted for treatment of SAM to your health facility? If so, would they be admitted for treatment of SAM in Outpatient Care or Inpatient Care?
- If your facility is not currently using the recommended admissions criteria, could these criteria be adopted?

At the end of the discussion, give each participant a copy of the answer sheet for this exercise. Then do the following oral drill.

6. Oral drill: Admissions criteria and z-scores

Tell participants that a drill is a fun, lively group exercise. It is not a test, but rather an active way to practise using information.

Ask participants to sit around the table. Each participant will need his or her WFH look-up table. Tell participants that you will call on them one by one to participate. You will usually call on them in order, going around the table. If a participant cannot answer, just go quickly to the next person and ask the question again. Participants should wait to be called on and should answer as quickly as they can.

Begin the drill. Call out the information in the first and second column on the left, and ask the first participant if, based on MUAC, the child is classified as having SAM. Ask if, based on the child's z-score, the child is classified as having SAM. Then give the additional information in the third column, and ask whether the child should be classified as having SAM.

If a participant cannot answer or makes a mistake, let the next person try. Keep the pace rapid. You may make up additional cases if needed. Some blank spaces are allowed for this.

Sex, length or height, weight	MUAC	Classify as SAM?	Z-score	Additional information	Classify as SAM?
Girl, 82.0 cm, 7.8 kg	110 mm	Yes	< -3	no oedema	Yes
Boy, 74.0 cm, 7.9 kg	114 mm	Yes	= -2	no oedema	Yes
Girl, 73.8 cm, 6.2 kg	108 mm	Yes	< -3	no oedema	Yes
Boy, 67.0 cm, 6.1 kg	106 mm	Yes	< -3	++ oedema	Yes
Girl, 55.5 cm, 3.9 kg	114 mm	Yes	< -2	++ oedema	Yes
Girl, 67.1 cm, 4.9 kg	104 mm	Yes	< -3	no oedema	Yes
Boy, 90.0 cm, 10.8 kg	116 mm	No	< -2	+ oedema (both feet)	Yes
Girl, 70.5 cm, 6.1 kg	111 mm	Yes	< -3	no oedema	Yes
Girl, 87.0 cm, 9.8 kg	114 mm	Yes	< -2	one swollen foot	Yes
Boy, 79.3 cm, 9.4 kg	121 mm	No	< -1	no oedema	No
Girl, 69.5 cm, 6.8 kg	117 mm	No	< -2	+ oedema (both feet)	Yes
Boy, 99.0 cm, 11.2 kg	111 mm	Yes	< -3	no oedema	Yes

7. Reading and short answer exercise (group-checked)

Pages 24–25 of **Module 2** provide the rationale for some of the case management procedures taught in the rest of the Case Management Training. Ask the group to read these pages and do the short answer exercise on page 26 as a review. The group will discuss the answers together.

At the end of the reading, use the questions on page 26 as a review. Brief answers are given below. Keep the discussion simple and brief. The point is to break up the reading and check participants' understanding.

Some participants may wish to discuss or question some of the principles of treatment described in the module. You are not expected to know the answer to every question asked. If there are questions that you cannot answer, please refer them to the Course Director.

Possible answers to exercise on page 26

1. When a child has SAM, why is it important to begin feeding slowly and cautiously?

The systems of the body slow down with SAM (reductive adaptation). Rapid changes (such as rapid feeding or fluids) would overwhelm the systems, so feeding must be started slowly and cautiously.

2. Why should all children with SAM be given antibiotics?

Nearly all children with SAM have bacterial infections, even if the usual signs of infection (such as inflammation or fever) are not apparent.

3. Why is it dangerous to give iron early in treatment?

Because the child with SAM makes less haemoglobin (Hb) than usual, he/she already has extra iron stored in the body. If iron is given at this point, it may lead to free iron in the body, which can cause problems (see [pages 24–25](#) of **Module 2**).

4. Why is ReSoMal preferable to regular or low-osmolarity ORS for children with SAM who have severe and/or persistent diarrhoea and/or dehydration?

In SAM, the ‘pump’ that controls the balance of potassium and sodium in the cells runs slower. As a result, children with SAM have excess sodium in their cells and have lost potassium. ReSoMal has **more potassium** and **less sodium** than regular ORS and is thus better for children with SAM.

8. Reading and short answer exercise (group-checked)

Ask participants to continue reading [pages 27–29](#) of **Module 2** and do the short answer exercise on [page 30](#). The group will discuss the answers together.

At the end of the reading, use the questions on [page 30](#) as a review. Brief answers are given below. Keep the discussion simple and brief. The point is to break up the reading and check participants’ understanding. Details of how to prepare the feeds are covered in **Module 4, Feeding**.

Possible answers to short answer exercise on [page 30](#)

1. What are two important differences between F-75 and F-100 (and RUTF)?

F-75 contains fewer calories than F-100 (and RUTF): 75 kcal per 100 ml as opposed to 100 kcal per 100 ml.

F-75 contains less protein than F-100 (and RUTF): 0.9 g per 100 ml as opposed to 2.9 g per 100 ml.

2. Why is it important to have different formulas (F-75, F-100 and RUTF) for managing SAM?

Children with SAM cannot tolerate usual amounts of protein and sodium, or high amounts of fat. F-75 is needed as a ‘starter’ formula so that the body will not be overwhelmed in the initial stage of treatment. When the child is stabilised, he/she can tolerate more protein and fat. F-100 and RUTF are then used to ‘catch up’ and rebuild wasted tissues.

3. CMV is included in F-75, F-100 and RUTF to correct electrolyte imbalance. What are two important minerals in this mix and why?

Potassium and magnesium. These are needed to correct electrolyte imbalance in the cells. More potassium is needed in the cells, and magnesium is essential for potassium to enter the cells and be retained.

4. What is the difference between F-100 and RUTF?

RUTF is an energy- and nutrient-dense ready-to-use food that has the same specifications as F-100, with iron added to it.

9. Reading and short answer exercise (self-checked)

Ask participants to read pages 31–32 of **Module 2** and refer to the job aids and the CMAM Manual when instructed to do so. Point out the short answer exercise on page 33 of **Module 2**. Explain that participants should complete this exercise on their own and check their own answers on **Module 2**, page 49. They should then finish **Module 2** by reading the last section about referral and discharge procedures (pages 34–36).

10. Video and photos: Transformations

In a short Case Management Training, participants may not be able to observe in the hospital ward the dramatic changes that can occur over time in children with SAM who are correctly managed. Thus, photos and a video are provided to show these changes.

Before or after the video, discuss Photos 21–29 with participants. These photos show changes in three children over a period of weeks. Information about each photo is provided in the *Photographs* booklet. (*Note: Weight-for-age is given for Photos 24 and 25 since height information was not available. Nevertheless, the changes are obvious. The MUAC of the children was not taken.*)

Show the video segment titled ‘Transformations’. This part of the video provides a review of the signs of SAM as well as two ‘success stories’: children named Babu and Kenroy. After the video, ask participants what signs of recovery they noticed in the children. They may mention such signs as smiling, standing up or moving around and having more flesh.

Participants may wish to view this brief video segment again. That is fine as long as other groups are not waiting to use the video player.

11. Summary of the module

1. Remind participants that the purpose of this module was to give an overview of case management for children with SAM and explain some of the reasons for these case management practices. Participants will learn more about each practice in later modules. Participants will practise actually weighing children and measuring their MUAC and height/length and determining z-scores (and discharge weights) in clinical sessions.
2. Remind the participants of the classifications of SAM and the recommended criteria for triage for treating children with SAM in Inpatient Care and Outpatient Care.
3. Briefly review the process of successful management of a child with SAM with medical complications described in Section 6.4 (page 31) of **Module 2**. Also review the important things NOT to do in Section 6.5 (page 32).

4. Stress the importance of Emergency Room personnel knowing correct case management procedures for children with SAM. Also, new health facility or hospital staff must be informed and trained.
5. Review any points that you have noted below, and answer any questions that participants may still have. (If you cannot answer a question, offer to obtain more information and discuss it later.)

Facilitator Guidelines for Module 3: Initial Management

Procedures	Feedback
1. Distribute Module 3, Initial Management , and make sure all participants have a set of job aids. Introduce the module.	-----
2. Ask the participants to read through <u>page 8</u> of the module. Demonstration: Use of the Inpatient Management Record, Initial Management page.	-----
3. Ask participants to read <u>pages 10–12</u> of the module and complete Exercise A.	Individual feedback
4. Ask participants to read <u>pages 18–24</u> of the module and complete the short answer exercise on <u>page 25</u> .	Self-checked
5. Exercise B: Group and individual work – Preparing and measuring ReSoMal.	Group discussion
6. Ask participants to read <u>pages 27–28</u> and complete Exercise C: Individual work on two cases, group work on one case.	Individual and group feedback
7. Ask participants to read <u>pages 35–36</u> and complete Exercise D.	Individual feedback
8. Video: Emergency Treatment.	-----
9. Ask participants to read <u>pages 40–41</u> and allow time to discuss. Ask participants to read <u>page 42</u> and prepare for the role-play in Exercise E. Conduct the role-play.	Individual feedback on Inpatient Management Record Group discussion of role-play
10. Summarise the module.	-----

Preparation for the module

If an overhead projector is available, you will use it to introduce the Inpatient Management Record and demonstrate how to use the Initial Management page. Practise using the overhead projector and the transparencies of the Inpatient Management Record pages provided. Alternatively, make sure that you have an enlarged copy of the Inpatient Management Record that the group can look at together.

In Exercise B, the group will prepare ReSoMal. You will need the following ingredients and supplies, as well as soap and water for hand-washing and clean towels (or paper towels) for drying hands. The Course Director should tell you where to obtain supplies. Have them ready before Exercise B.

If using:	Ingredients:	Supplies:
Commercial ReSoMal	ReSoMal packet Cooled boiled water (at least 1 litre for a 1-litre packet)	Mixing spoon Container to hold 1 or 2 litres Measuring cup or medicine cup with ml markings, or 50 ml syringe Small cups or spoons for tasting
ReSoMal made from standard ORS	1-litre standard ORS packet Sugar (at least 50 g) CMV (1 level scoop) Cooled boiled water (at least 2 litres)	Same as above, plus: Container to hold > 2 litres Dietary scale that weighs to 5 g
ReSoMal made from low-osmolarity ORS	1-litre low-osmolarity ORS packet Sugar (at least 40 g) CMV (1 level scoop) Cooled boiled water (at least 1.7 litres)	Same as for standard ORS

The second segment of the video (Emergency Treatment) will be shown during this module.

For Exercises C and E, you will need extra copies of the Initial Management page of the Inpatient Management Record. Make sure that you have at least three copies per participant (preferably more, in case mistakes are made).

1. Introduce Module 3

Explain that this module describes measures that should be taken immediately to prevent death while stabilising a child with SAM. Some of the procedures described in this module may take place in the Emergency Room, before the child is admitted to the SAM ward. The child with SAM with medical complications is referred to and treated in the SAM ward, as is recommended in the Admission and Discharge Criteria for the Management of SAM in Children under 5 Job Aid and the CMAM Manual. If the child with SAM has no medical complications, the child is not admitted to Inpatient Care, but is instead referred to and treated in Outpatient Care. If it is decided to start treatment of SAM with medical complications in the Emergency Room, then personnel must be taught to recognise children with SAM and treat them correctly. They must understand why children with SAM must be treated differently than other children.

Point out the learning objectives of this module on [pages 1–2](#). Explain that participants will first read about hypoglycaemia (low blood glucose) and hypothermia (low body temperature). These two conditions are life-threatening and often occur together in severely malnourished children.

Ask participants to read through [page 8](#) of **Module 3**. When everyone has reached that point, you will look together at the Inpatient Management Record, a recording form that will be used as an aid in this Case Management Training.

Nurses (and nutritionists) groups (when appropriate): Ask the group to pause when they get to the box on [page 4](#) of the module. Ask questions to check their understanding, such as:

- What is hypoglycaemia?
- How do you know if a child has hypoglycaemia?
- How can hypoglycaemia be prevented?

All of these questions are answered in Sections 1.1–1.2 ([pages 3–8](#)) of the module.

Hold up the F-75 look-up table. Be sure that everyone is looking at the front of the card (not the side for children with severe [+++] oedema). Point to the columns to show how to read the card. For now, focus only on how to use the 2-hourly feed column. The other columns will be used later. Do a few examples with the group. For example, ask, ‘How much F-75 would you give a child who weighs 8.2 kg every 2 hours?’ (Answer: 90 ml.)

Explain that the reverse side of the form is only for children with severe (+++) oedema. The amounts for these children are less because their weights are falsely high. The amounts are appropriate for their estimated true weights.

Talk through Section 1.1 of the module, which explains how to treat hypoglycaemia. Briefly cover the main points:

- The hypoglycaemic child needs glucose quickly.
- How to give glucose:
 - If the child can drink, give a 50 ml bolus of 10% glucose orally.
 - If alert but not drinking, give the 50 ml bolus by nasogastric tube (NGT).
 - If lethargic, unconscious or convulsing, give 5 ml/kg body weight sterile 10% glucose intravenously, followed by 50 ml 10% glucose by NGT.
- Start feeding F-75 half an hour after giving glucose. Give it every half-hour for 2 hours. Give one-quarter of the 2-hourly amount shown on the F-75 job aid.
- When the child’s blood glucose is 3 mmol/L or higher, change to 2-hourly feeds of F-75.

Go through the example about Ari on [page 5](#) orally, showing how to use the F-75 job aid, dividing the amount shown for a 2-hourly feed by 4.

Ask participants to read Section 1.1 of the module (to review the concepts that you have just presented) and then continue reading [pages 5–8](#) of the module.

2. Demonstration: Use of the Inpatient Management Record, Initial Management Page

Tell participants that the Inpatient Management Record (see the Inpatient Management Record Job Aid) will be used in this Case Management Training as an aid to remember steps in treatment and monitoring, and also as a record of care. Participants may use different recording forms in their own hospitals. The Inpatient Management Record is an example of a very complete form. Participants may eventually wish to incorporate parts of this form in their own record-keeping systems; however, this is not required.

If you are using a digital projector, use it to show the pages of the Inpatient Management Record. Otherwise, have the group gather closely around the table where they can see enlarged copies of the Inpatient Management Record pages or make sure they have their own hard copies. In this demonstration, you will focus on the Initial Management page. Other pages will be explained later.

Show the Initial Management page and describe it as follows. Point to the relevant section of the page as you talk. (Do not go into too much detail, especially about sections that have not been covered in the module. This is just an introduction.) It may be helpful for one facilitator to talk while the other facilitator points to the relevant sections and writes on the form.

Initial Management page

This module focuses on this first page of the Inpatient Management Record. It has space to record the signs of SAM and the child's temperature and blood glucose level (*point to each section*). Later in this module, participants will learn about recording Hb, eye signs, signs of shock and diarrhoea. Notice there is also space to record the initial feeding and the antibiotics prescription.

For some children, this page will be used only briefly. However, if the child is in shock or needs rehydration, this page may be used for a number of hours as the child is given intravenous (IV) fluids or ReSoMal.

Tell the story of a child named Dikki as you (or your co-facilitator) record the following information on the Inpatient Management Record in front of participants:

Dikki is a 20-month-old boy. He was admitted on 16 December 2000 at 9:00. His hospital number is 502.

Dikki appears severely wasted. He has oedema of both feet and lower legs (++) . He has mild dermatosis (+).

Dikki's MUAC is 109 mm.

He weighs 7.0 kg and is 70 cm long. Ask a participant to look up Dikki's z-score. (Answer: It is WFH < -2 z-score.) Record it. Ask if Dikki should be admitted to Inpatient Care. (Answer: Dikki should be admitted because he has oedema with severe wasting [MUAC is < 115 mm], the reason for Inpatient Care; he also has dermatosis, a medical complication, another reason for Inpatient Care.)

Dikki's rectal temperature is 36° C. Ask a participant if Dikki is hypothermic. (Answer: No, but he should be kept warm.)

Dikki's blood glucose level is < 3 mmol/L, but he is alert. Ask a participant if Dikki has hypoglycaemia. (Answer: Yes.) Ask another participant what should be done. (Answer: Give Dikki 50 ml bolus of 10% glucose orally.)

Dikki's Hb is 90 g/L. His blood type is B+. He has no eye problems and has not had measles. He does not have signs of shock. He does not have diarrhoea. There is no blood in the stool and no vomiting.

Dikki is first fed 75 ml of F-75 at 9:30.

Point out the spaces for recording monitoring information while a child receives IV fluids or ReSoMal, but do not try to explain these sections now. Participants will learn about them in the next sections of the module.

Dikki needs antibiotics, but do not record those now. Participants will learn about antibiotics later in the module.

Daily Care page

Show the Daily Care page. **Module 4, Feeding**, and **Module 5, Daily Care**, focus on this page of the Inpatient Management Record. This page is used every day once the child has been admitted to the ward. Notice there is room for 21 days on the form.

Monitoring Record page

Show the Monitoring Record page. This page is used to record results of monitoring respiratory rate, pulse rate and temperature. This record will be explained in **Module 5, Daily Care**.

Weight Chart page

This graph is used daily to plot the child's weight so that increases and decreases can be easily seen. It will be explained in detail in **Module 5, Daily Care**. Point out that it can be used for 28 days. Do not try to explain the weight chart in detail now. Also the discharge weight (end of treatment of SAM) will be indicated on the weight chart. Explain how to determine the discharge weight by the use of the target weight for discharge look-up table in the job aids).

Comments/Outcome page

This page is used as needed to record comments on any special instructions or training given to mothers¹. It is also where immunisations and vaccinations are recorded. When a child is referred to Outpatient Care to continue treatment as discharged cured (full recovery), departs early (defaults), dies or does not recover in given time period (2 months in treatment but non-response despite further medical investigations), that outcome is described on this page. The patient outcome section can be very useful in identifying and solving problems on the ward.

Return to the Initial Management page and re-focus the group on this page. This is the only page of the Inpatient Management Record that participants will use in this module. They should not be concerned about the other pages at this point.

Ask participants to continue reading Module 3, pages 10–12, and then complete Exercise A, in which they will use parts of the Initial Management page of the Inpatient Management Record.

¹ The term 'mother' is used throughout the modules and guides. However, it is understood that the person who is responsible for the care of the child might not always be that child's mother, but rather some other caregiver. However, for the sake of readability, 'mother' means 'mother/caregiver' throughout the modules and guides, 'she' means 'she or he' and 'her' means 'her or his'.

Nurses (and nutritionists) groups (when appropriate): If the group includes slow readers, you may talk through Sections 1.3 and 1.4 instead of asking them to read these sections. Explain the main points in the module. Point to the relevant sections of the Initial Management page as you talk. The ‘SIGNS OF SHOCK’ box of the Initial Management page is a reminder of the signs of shock and the actions to take. The ‘HAEMOGLOBIN’ section tells when a transfusion is needed.

If the reading skills of the group are good, ask them to read Section 1.3 and then stop. Ask the group questions to check understanding with such questions as:

- What signs of shock must be present for a child with SAM to receive IV fluids?
- What amount of IV fluids should be given?
- How often should the respiratory and pulse rate be monitored? Why?

Likewise, ask the group to read Section 1.4 and then stop. Ask such questions as:

- How can you tell if a child has severe anaemia?
- What should be done for a child with severe anaemia?

3. Exercise A: Individual work followed by individual feedback – Identifying initial treatments needed and recording on the Inpatient Management Record

Participants should ask you for individual feedback after doing the first case, **Tina**. Giving feedback at this point will allow you to ensure that participants are on the right track and to correct any misunderstandings. Before participants continue with the next two cases, be sure that they know where to look on the Initial Management page for calculations of amounts of IV glucose and IV fluids needed.

Nurses (and nutritionists) groups (when appropriate): Those who quickly finish the first case (Tina) and receive feedback may continue to work independently on the rest of the exercise. When everyone has received individual feedback on Tina, continue the rest of the exercise (Kalpana and John) as a group.

Read the case description aloud and point out the signs on the Inpatient Management Record excerpts given in the module. Ask the questions aloud and discuss each answer.

When discussing John, it will be helpful to show an overhead of the Initial Management page, record on it and point to the relevant sections as you talk.

Be sure to discuss special notes about Kalpana and John given on the next page.

When giving individual feedback on **Kalpana** and **John**, discuss each case with the participant and compare his/her answers to the answer sheet provided. If the participant has made errors, do not simply correct them, but try to find the reason for the misunderstanding and clarify.

Special note re Kalpana. Be sure that participants understand that diuretics should never be used to reduce oedema. Kalpana receives a diuretic because she is getting a blood transfusion, and it is needed to make room for the blood.

Special note re John. Because John has hypoglycaemia and signs of shock and is lethargic, he needs 10% glucose by IV. He does not then need the 50 ml bolus NGT since he will be on IV fluids, which will continue to provide glucose. If John did not have signs of shock, and would thus not receive IV fluids, he would need the 50 ml bolus NGT.

At the end of feedback, give participants the answer sheet. Rounding (or lack of rounding) may cause some discrepancies between participant's answers and those on the answer sheet. Do not be overly concerned about these discrepancies. Explain to participants that they may need to round answers to have an amount that can be practically measured. For example, they will need to round amounts of ReSoMal at least to the nearest ml.

4. Reading and short answer exercise

Ask participants to read pages 18–24 and complete the short answer exercise on page 25. Point out that Section 1.5 of the module relates to the 'EYE SIGNS' box of the Initial Management page. Section 1.6 of the module relates to the 'DIARRHOEA' box of the Initial Management page.

While participants are working, make sure that you have all of the supplies needed for making ReSoMal in the next exercise. Arrange the supplies where everyone will be able to see and participate.

During this section of reading, participants should refer to the *Photographs* booklet, Photo 12 (corneal ulceration); Photos 6, 30 and 31 (sunken eyes); and Photo 32 (skin pinch).

5. Exercise B: Group and individual work – Preparing and measuring ReSoMal

Ask all participants to wash their hands. Prepare the ReSoMal using cooled boiled water so that it can actually be used in the ward.

Prepare ReSoMal according to package directions, or according to instructions on page 24 of the module. Let a different participant do each step. For example, ask one person to add the packet, another to measure the sugar, another to measure the water, etc. When weighing the sugar, be sure to weigh and subtract the weight of any container used on the scale; alternatively, weigh the sugar in a plastic bag that weighs almost nothing. When the ReSoMal has been prepared, allow each participant to taste it.

Next ask each participant to answer the questions on page 25 of the module individually. When they have finished, distribute the answer sheet and review the answers as a group. After checking each answer, ask a different participant to measure the amount of ReSoMal in

that answer. Use a small medicine cup or a 50 ml syringe to measure. Point out that these are very small amounts that will not overwhelm the child's system. They should not be tempted to give more or give it too quickly.

Ask participants to read pages 27–28 and begin Exercise C. In Exercise C, participants will need extra copies of blank Initial Management pages. Show participants where these copies are kept in the classroom. Read out to participants the rest of the information for Marwan and ask them to fill this in on his Inpatient Management Record on page 29.

Nurses (and nutritionists) groups (when appropriate): Before Exercise C, conduct this demonstration/role-play to help participants understand how **recording** on the Inpatient Management Record Initial Management page is related to **actions** taken in the ward.

Show a blank Initial Management page on the overhead projector. One facilitator will record on this form. The other will act as a 'mother' holding a 'baby' (a rolled-up towel). Each participant in turn will ask the 'mother' a question, pretend to examine the baby in some way, or pretend to take blood and say what lab test should be done. The 'mother' will have information about the child, such as the child's name and age, so that she can respond appropriately. The facilitator will record the 'mother's' answers and will also provide information in response to the participant's actions. For example, if the participant pretends to weigh the child, the facilitator will call out the weight and record it. At the end, the group will check to see if anything has been omitted from the Inpatient Management Record.

It is not necessary for participants to ask questions or do the examination in a certain order. For example, a participant may look for signs of shock before another participant looks for oedema, or vice versa. Important concepts:

- All sections of the Initial Management page relate to important parts of the child's history or examination.
- The information obtained determines the need for life-saving treatments.

Information for 'mother' (one facilitator):

- The child's name is Babu, a boy. He is 12 months old and breastfed, although he takes some juice from a bottle.
- The mother brought him because of his skin problem (flaking and raw skin in several places).
- He has not had measles.
- There has been no diarrhoea, no vomiting and no blood in the stool.

Information from examination or lab. (The other facilitator provides this information as participants 'examine' the child):

- Babu weighs 5.2 kg and is 68 cm in length.
- He appears severely wasted.
- He has no oedema.
- He has a MUAC of 112 mm.
- His dermatosis is moderate (++)
- His rectal temperature is 36.5° C.
- There are no signs of shock: He is alert and his hands are warm. Capillary refill is 2 seconds and his pulse is not weak or fast.

- His blood glucose is 4 mmol/L.
- There are no eye problems.

If a participant is confused about what to do next, tell him/her to look at the Initial Management page and see what else needs to be checked.

At suitable points, interject questions such as, ‘What is Babu’s z-score? Does Babu need to be admitted? Does Babu have hypoglycaemia? Hypothermia?’ (*Answers: MUAC is < 115 mm, WFH is < -3 z-score and he has dermatosis, so needs to be admitted. He does not have hypoglycaemia or hypothermia.*)

At the end, be sure to ask: ‘When does Babu need to be fed? What? How often? How much?’ (*Answer: Start now! Feed 55 ml F-75 every 2 hours.*) Record this in the ‘FEEDING’ box on the Initial Management page.

Explain that Babu will need an antibiotic. Antibiotic choices will be explained later in the module.

6. Exercise C: Individual and group work – Identifying more initial treatments needed and recording on the Inpatient Management Record

Participants should see you for individual feedback after the second case of this exercise (Ram). Giving individual feedback on the first two cases will allow you to see how well each participant understands the material.

When everyone has received individual feedback on the first two cases, do the third case (Irena) together as a group. After much individual work, this group interaction will be appreciated.

Nurses (and nutritionists) groups (when appropriate): If the group seems to understand how to use the Initial Management page, follow the instructions given above for all groups.

If the group is having difficulties, ask participants to do only the first case (Marwan) individually. Then do both Ram and Irena as a group. Instructions for Irena are given on the next page. Use a similar process for Ram.

Individual feedback (Marwan and Ram)

When giving individual feedback, discuss each case with the participant and compare his/her answers to the answer sheet provided. If the participant has made errors, do not simply correct them, but try to find the reason for the misunderstanding and clarify.

Group work (Irena)

Show an overhead of a blank Initial Management page. Ask participants to complete a blank Initial Management page as you write on the overhead. Have participants take turns reading

aloud the background information given on [page 32](#) in the module. As they read, record the information on the overhead.

Next, ask participants in turn to answer questions 3b–3d of the exercise. Discuss or correct misunderstandings as needed. (Refer to the answer sheet given in the packet as needed.) When question 3d has been answered, record information about amounts of IV glucose and IV fluids on the Initial Management page.

After answering question 3d, continue to the end of the exercise using this process:

1. Ask participants in turn to read the information given about the case.
2. Record on the overhead of the Initial Management page while participants record on their own forms.
3. Ask participants the questions given in the module and discuss the answers.

Stress the importance of monitoring the child carefully whenever IV fluids or ReSoMal is being given. Emphasise the importance of monitoring every 10 minutes while on IV fluids and every 30 minutes or hour while on ReSoMal. Some participants may feel that such frequent monitoring is impossible; however, it is important because the child may go into heart failure if hydrated too fast. It is critical to quickly notice signs of possible heart failure, such as increasing pulse and respirations. Hospital staff should do their best to monitor at the suggested intervals.

At the end of the exercise, give each participant an answer sheet that includes all three cases.

Ask the group to read [pages 35–36](#) and complete Exercise D. The Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care Job Aids will be used in this exercise. The third case (Dipti) is optional. You may omit this case if the group is behind schedule or if the antibiotic recommendations in the Case Management Training are inconsistent with those in the local area due to resistance.

Nurses (and nutritionists) groups (when appropriate): Most nurses (and nutritionists) do not have responsibility for prescribing drugs. Therefore, they do not need to spend a great amount of time learning how to select antibiotics (Section 3.0 of **Module 3**).

Before completing Exercise D, review the following key points with the group:

- An antibiotic is needed for every child with SAM.
- The choice of antibiotic will depend on the complications present (as well as antibiotic recommendations for the local area).
- The dose should be based on the child’s weight, not age.

Demonstrate how to use the Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care Job Aids using the example about Khalil on [page 36](#) of the module.

Ask participants to complete only Case 1 (Persant) in Exercise D and then come to you for individual feedback.

7. Exercise D: Individual work followed by individual feedback – Selecting antibiotics and determining dosages

When several drug formulations are listed on the Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care Job Aids, participants should choose the one that is most likely to be available in their own hospitals. Answers are given for all of the formulations on the answer sheet.

Be sure that the participant understands the Routine and Other Medicine Protocols and Vaccines Job Aids. The tables tell what antibiotic drug to use, depending on the presence or absence of medical complications, and in case of resistance, with daily dosages expressed per kg body weight. Other routine medicines for presumptive treatment and/or prevention, and supplemental medicines for other common infections and infestations with indication and dosage are summarized, or refer to national treatment protocols.

The dosage of the antibiotic drug calculated per body weight gives a more precise dosing than one based on age.

Remind the participants where antibiotics prescriptions should be recorded on the Initial Management page of the Inpatient Management Record.

Some participants may be concerned about resistance to the recommended antibiotics in their areas. The antibiotic recommendations may be adapted locally if necessary.

Give each participant an answer sheet. When everyone has finished this exercise, the group will see a video about emergency treatment. In the meantime, participants can continue work on the module by reading [pages 40–41](#) and allow time to discuss. Then participants will read Section 5.0 ([page 42](#)) and complete the written part of Exercise E.

8. Video: Emergency Treatment

The video can be shown at any point after participants have finished Exercise D of this module. Introduce the video as follows:

This brief video shows many of the steps described so far in this module. In real life, these steps must occur very quickly, almost simultaneously. The video will show an emergency team working together rapidly and efficiently.

The video shows that a child will die without immediate treatment. Watch carefully as the team quickly follows emergency procedures. You will see the process once; then you will see it again with commentary.

After the video, lead a discussion. Ask participants questions, such as the following:

- What did you see the emergency team check for and why? What did you not see them check for? *Note:* Checking eyes is not shown. Use of dextrostix is not shown, but this is not required in this case; when the child is in shock and lethargic, he should get the IV glucose.
- This child has chest in-drawing and appears to have fast breathing. What are these signs of? (*Answer: Severe pneumonia.*) What antibiotic should be given? (*Answer: Amoxicillin-clavulanic acid and gentamicin. If the child responds, complete the*

treatment; if the child does not respond add chloramphenicol (or ceftriaxone) until the child improves.)

- What was different from the guidance given in module? *Note: The child is left uncovered. This is because he had a fever of 38° C and the room was extremely hot. Usually the child should be covered.*
- Can the emergency team at your hospital do these procedures?

Be sure that the following points are raised in the discussion:

- This child is in shock, so he will receive IV fluids. Give IV fluids only when a child is in shock. (Ask: ‘What are signs of shock?’ *Answer: Cold hands with slow capillary refill or weak or fast pulse.*)
- Notice that glucose, fluids and antibiotics were all given through the same IV line.
- Notice that pulse and respirations are monitored.
- The mask is too big because it covers the child’s eyes. A paediatric mask or nasal catheter would be preferable for a good oxygen flow.
- The skin pinch is done to determine (later) whether rehydration seems to have occurred. We do not know if this child has diarrhoea.

Additional notes: Make these points only if participants raise these questions:

- Participants may ask why the child’s arm is shaking. That is unusual, and the reason is unknown. One would expect the arm to be limp. The shaking may be due to hypoglycaemic seizure.
- Participants may ask why femoral blood is taken. That is also unusual. One would expect blood to be taken from the scalp when the IV is inserted.
- Participants may ask why the team checks for palmer pallor. Hospital staff were trying to see if the child is anaemic. They should determine the Hb level before deciding on a transfusion. However, they may have been trying to predict the likelihood that the child will need a transfusion.

After the discussion, ask participants to continue work on the module by reading Section 5.0 on [page 42](#) and completing the written part of Exercise E.

When everyone is ready, there will be a role-play in which an admitting physician briefs a head nurse on a child’s conditions and needs.

9. Exercise E: Individual work followed by individual feedback, then role-play and discussion – Briefing staff on a child’s conditions and needs

This exercise should show how an Inpatient Management Record can be a helpful tool in communicating with staff about what has happened during initial management, and what needs to happen during daily care. Participants will need blank copies of the Initial Management page of the Inpatient Management Record for this exercise.

Since this is the first role-play in the Case Management Training, review the general facilitator guidelines about role-plays at the end of this guide on [page 79](#).

When a participant has finished the Initial Management page for Rayna, he/she should show it to you. Check it quickly and give each participant the Inpatient Management Record page

provided in the answer sheets. Then ask the participant to list points that the admitting physician should make, and questions that a nurse might ask, as instructed on [page 42](#).

Select a participant to play the role of the physician and another to play the role of the nurse. For this first role-play, select participants who appear to be confident and comfortable in front of a group. Check to make sure that they have listed some reasonable points and questions in their modules. If necessary, give them some hints from the answer sheet.

Ask the participants playing roles to behave as a normal physician and nurse might behave. The physician should refer to the Initial Management page for Rayna as an aid. The physician should inform the nurse what to do next, when to feed the child and how much, etc. The nurse should ask realistic questions that a nurse might have.

During the role-play, other participants should observe and make notes on things done well and suggestions for improvement.

In the discussion following the role-play, be sure that the tone is positive. If some points listed on the answer sheet were not made, mention those points. Distribute the answer sheet.

10. Summary of the module

1. Remind participants of the learning objectives for this module, listed on [pages 1–2](#) of the module. The skills taught in this module are those intended to prevent death while stabilising the child. Stress that Emergency Room staff need to have these skills, along with the knowledge of what to do and what not to do.
2. Remind participants that all children with SAM need antibiotics. The presence or absence of complications determines the type of antibiotics. Recommendations may vary locally due to resistance to certain antibiotics in some areas.
3. Stress that the Initial Management page of the Inpatient Management Record is meant to be an aid, to help remember emergency steps. When used as a record, it also is a valuable communication tool.
4. Review any points that you have noted below, and answer any questions that participants may still have. (If you cannot answer a question, offer to obtain more information and discuss it later.)



Facilitator Guidelines for Module 4: Feeding

Procedures	Feedback
1. Distribute Module 4, Feeding , and the job aids that contain the F-100 and RUTF look-up tables. Introduce the module.	-----
2. Ask participants to read through <u>page 5</u> of the module. Ask the group to complete Exercise A.	Group discussion
3. Ask the participants to read <u>pages 7–8</u> and complete the short answer exercise on <u>page 9</u> .	Self-checked
4. Lead the group oral drill on determining amounts of F-75 to give.	Drill
5. Ask participants to read <u>pages 10–13</u> . Demonstration: 24-Hour Food Intake Chart	
6. Ask participants to complete the short answer exercise on <u>page 14</u> .	Self-checked
7. Ask participants to read <u>page 15</u> and complete Exercise B.	Individual feedback
8. Ask participants to read <u>pages 22–25</u> and complete Exercise C.	Individual feedback
9. Ask participants to read <u>pages 29–30</u> and complete Exercise D.	Individual feedback
10. Ask participants to read <u>pages 36–38</u> and complete Exercise E. They may work with others from their own hospital on this exercise.*	Group discussion
11. Ask participants to read <u>pages 41–42</u> and complete Exercise F.	Individual feedback
12. Ask participants to read <u>pages 45–46</u> and prepare for the group discussion in Exercise G.	Group discussion
13. Ask participants to read <u>pages 48–57</u> , followed by summary presentation and group discussion.	Presentation and Group Discussion
14. Summarise the module.	-----

* If desired, this activity may be done on the half-day in the middle of the Case Management Training (day 4), to enable groups from the same hospital to work together.

Preparation for the module

Early in this module the group will prepare F-75 and F-100 and discuss the use of RUTF. Obtain from the Course Director copies of recipes for F-75 and F-100 and RUTF specifications used in the hospital where clinical practice occurs. (If the recipes for F-75 and F-100 are not suitable, use generic recipes from page 4 of the module.) Obtain all ingredients and equipment/supplies for preparing the recipes. Note that you will need a dietary scale and possibly a blender or a hot plate for cooking. Water should be boiled and cooled in advance. There may be a designated kitchen area that all of the groups will use. If so, find out whether there is a certain time that your group will use the kitchen area.

You will need copies of the 24-Hour Food Intake Chart and Daily Ward Feeds Chart (or enlarged copies of these forms that can be used for demonstrations to the whole group on how to complete the forms).

1. Introduce Module 4

Explain that this module describes a critical part of managing SAM, that is, feeding. However, as explained in **Module 2, Principles of Care**, feeding must begin cautiously with F-75, in frequent small amounts. This module describes how to start feeding on F-75, transition to RUTF and/or F-100 and, for the few cases remaining in Inpatient Care, to continue feeding on RUTF or free-feeding on F-100. This module focuses on preparing the feeds, planning feeding and giving the feeds according to plan.

Point out the learning objectives of this module on [page 1](#).

2. Exercise A: Group work followed by group discussion – Preparing F-75 and F-100

Ask participants to read through [page 5](#) of the module. When everyone has reached that point, the group will prepare F-75 and F-100 and discuss the use of RUTF. *(If necessary, preparation of F-75 and F-100 can be delayed until it is time for your group to use the kitchen area. The group can continue work on the module while waiting for a turn in the kitchen area.)*

Follow the recipes carefully. Be sure that everyone washes their hands. If the recipes are made correctly, the prepared formulas can be used in the ward.

Make F-75 first and then F-100. Point out differences in the recipes. You may prepare one recipe with a whisk and one with an electric blender to show both methods.

Have participants take turns doing the steps in the recipes (e.g., measuring an ingredient, stirring). Ask participants to notice steps where errors are likely to be made and point these out. For example, in the recipes given in the module, it is critical to add just enough water to make 1,000 ml of formula; a common error might be to add 1,000 ml of water, which would make the formula too diluted.

After preparing the formulas, let everyone have a taste. (The remaining amount may be used during the next drill or in the hospital ward.)

Discuss with the group such questions as:

- What aspects of preparing these recipes would be difficult in your health facility or hospital?
- How can you make sure recipes are prepared correctly?
- Are the necessary ingredients available for these recipes, or for the recipes given in the module?
- Do any new supplies need to be purchased, such as correctly sized scoops?

After you have finished, discuss the composition of RUTF and how it is used. Discuss with the participants how to conduct the RUTF appetite test and provide the RUTF key messages.

3. Reading and short answer exercise

Participants will use the F-75 look-up tables from the set of job aids in this section. Be aware that one F-75 look-up table is for children with severe wasting and mild (+) or moderate (++) oedema, and the other F-75 look-up table is for children with severe (+++) oedema. While participants are working, prepare for the drill below.

4. Drill: Determining amounts of F-75 to give

Ask participants to gather around for the drill. They will need their F-75 look-up tables. The purpose of this drill is to practise using the look-up table to determine amounts of F-75 to give.

Remind participants of the procedure for drills. You will call on each person in order. If a participant cannot answer, you will go quickly to the next person and ask the question again. Participants should wait until it is their turn and should answer as quickly as they can. It should be a fun, lively exercise.

Begin the drill. Use the case information on the next page. Call out the case information, then ask the first participant to use the job aid and tell how much F-75 should be given. Explain that, unless specified otherwise, the weight given is the weight on admission (or after initial rehydration). Unless otherwise specified, the degree of oedema is also what was present on admission.

If a participant cannot answer or makes a mistake, let the next person try. Keep the pace rapid. You may make up additional cases if needed. Some blank spaces are allowed for this. At several points in the drill, you may stop and have a participant measure out the correct amount from the batch of F-75 just prepared. Choose some larger and some smaller amounts to show the range.

Case information for drill	Amount F-75 per feed
7.2 kg, no oedema, 2-hourly feeds	80 ml
8.4 kg, no oedema, 2-hourly feeds	90 ml
6.1 kg, no oedema, 2-hourly feeds	65 ml (<i>use amount for 6.0 kg, the next lower weight on chart</i>)
7.9 kg, no oedema, 2-hourly feeds	85 ml
6.4 kg, mild (+) oedema, 3-hourly feeds	105 ml
8.6 kg, no oedema, 4-hourly feeds	190 ml
9.15 kg, moderate (++) oedema, 3-hourly feeds	145 ml
10.6 kg, severe (+++) oedema, 2-hourly feeds	90 ml
8.4 kg, severe (+++) oedema, 3-hourly feeds	105 ml
8.8 kg, mild (+) oedema, 4-hourly feeds	195 ml
8.6 kg with severe (+++) oedema on admission; now weighs 6.4 kg and has no oedema, 4-hourly feeds	145 ml (<i>continue using severe oedema chart and starting weight for this child while on F-75</i>)
7.5 kg, hypoglycaemia, moderate (++) oedema, half-hourly feeds	20 ml per ½ hour (80 ml ÷ 4)
7.4 kg, hypoglycaemia, severe (+++) oedema, half-hourly feeds	15 ml per ½ hour (60 ml ÷ 4)
9.0 kg with severe (+++) oedema on admission; now weighs 6.8 kg and has no oedema, 4-hourly feeds	150 ml
6.9 kg, severe (+++) oedema, 2-hourly feeds	55 ml

After the drill, tell participants that the next section of reading will explain how to record feeds on a 24-Hour Food Intake Chart and on the Daily Care page of the Inpatient Management Record. Hold up both of these forms for everyone to see.

The 24-Hour Food Intake Chart will be used to provide the details of each feed of the day. The Daily Care page simply provides a brief summary of the feed plan and the amount taken during the day. Participants will use only a small part of the Daily Care page at this point, that is, the three lines related to the feed plan. Point out these three lines on the Daily Care page.

5. Reading, demonstration using 24-Hour Food Intake Chart

Have participants read [pages 10–13](#) of the module about feeding and recording feeds.

Possible question about breastfeeding. Participants may raise a question about feeding F-75 to babies who are ‘exclusively’ breastfeeding. It is very rare to find an exclusively breastfed baby who has SAM. If the baby has SAM, he/she needs the F-75, but he/she should be encouraged to breastfeed between feeds. F-75 is a low-sodium, low-solute milk and is safe for young babies. Breastfeeding counselling may be needed.

Low-birth-weight babies are not likely to meet the definition for SAM used in this Case Management Training. They are not usually severely wasted or oedematous. Low-birth-weight babies should be breastfed. Their management is not taught in this Case Management Training.

The (medical and) dietary management of infants under 6 months (or infants over 6 months but less than 4 kg) is provided in Section 6.0.

Nurses (and nutritionists) groups (when appropriate): After participants read pages 10–13, ask how they will know if a child needs an NGT. (*Answer: The child needs an NGT if he/she does not take 80% of the F-75 orally [i.e., he/she leaves more than 20%] for 2 or 3 consecutive feeds.*)

Help the nurses (and nutritionists) understand what 80% means; 80% is ‘almost all’ of the feed. Show examples using a glass of drinking water:

- Put 100 ml of water in a clear glass. Ask a participant to imagine where the water would be after drinking 80 ml and draw a line on the glass at that spot. Then ask her to drink 80 ml. Show the amount left to the group. Ask the group what percentage the participant took (80%) and what was left (20%). Measure the amount left to see how accurate the participant’s guess was. If about 20 ml is left, the guess was accurate.
- Again put 100 ml of water in a glass and show the amount to the group. This time, have a participant mark where half would be and drink half. Show the group the amount left. Ask participants what percentage was taken (50%). Ask participants if enough was taken. It should be clear, just from looking in the glass, that half (50%) is less than 80% and clearly not enough.

In many cases, it will be obvious whether or not 80% has been taken. However, if unsure, one can use simple math or a calculator. To make the calculation, it is important to remember the relationship between percentages and decimal fractions. Write the following on the flipchart:

$$80\% = 80/100 = 0.80$$

Ask a participant to use his/her calculator to figure out what 80% of 60 ml is. (Multiply 0.80×60 ml. *Answer: 48 ml.*) If 60 ml is offered, any amount less than 48 ml is not enough (Likewise, if more than 12 ml is left, the child has not taken enough [60 ml – 48 ml = 12 ml].)

Give one more example. A child is offered 75 ml of F-75 orally. Show this amount in a glass. He/she takes 55 ml (pour out this amount) and leaves 20 ml. Show the amount left in the glass. Ask: Did the child take enough? Let half the group judge based on appearance, and the other half by doing a calculation (0.80×75 ml = 60 ml). Compare the results. (*Answer: He/she took 55 ml, which is less than 60 ml [80%] and not quite enough.*)

Note: If F-75 is not given in graduated cups or marked glasses, it will take extra effort to measure the amount left after each feeding. Leftovers will need to be poured into a graduated cup or syringe for measuring. If a syringe will be used for nasogastric (NG) feeding, leftovers may be measured in the syringe, and then dripped through the NGT.

Demonstration of 24-Hour Food Intake Chart

Do the following demonstration to show how a 24-Hour Food Intake Chart can help staff notice feeding problems early. Use an overhead transparency or an enlarged copy of the form and complete the form in front of the group. One facilitator can record while the other tells the following story.

A girl named Marina weighs 5.4 kg on admission. It is her second day in hospital, and she still weighs 5.4 kg. She is supposed to receive 12 feeds of 60 ml F-75 today.
Record this information at the top of the form.

The feeding day starts at 8:00 and ends at 6:00 the next morning, so the 2-hourly feeding times are: 8:00, 10:00, 12:00, 14:00, etc. List all 12 feeding times in the 'Time' column.

At 8:00, the nurse offers Marina 60 ml of F-75. She left 5 ml, so the amount taken is 55 ml. She did not vomit any of the feed, and she did not have any watery diarrhoea.
Record that 60 ml was offered, 5 ml was left, and 55 ml was taken. Ask: Did she take enough? (Answer: Yes, she took more than 80%. 55 ml is 'almost all' of 60 ml. 80% of 60 ml is 48 ml.) Marina did not need NG feeding, so record 0 in the NG column.

Tell participants that you are going to continue to record what happened at the next feeds. Ask them to stop you if they think something different should be done:

10:00 60 ml offered, 0 ml left, 60 ml taken, 0 NG, No vomiting, No diarrhoea

12:00 60 ml offered, 10 ml left, 50 ml taken, 0 NG, No vomiting, No diarrhoea

14:00 60 ml offered, 0 ml left, 60 ml taken, 0 NG, Vomited 30 ml, No diarrhoea

16:00 60 ml offered, 20 ml left, 40 ml taken, 0 NG, No vomiting, No diarrhoea*

* If no one stops you, go on to record the next feed. Someone may stop you here and suggest NG feeding. Since Marina took all of the previous feed before vomiting, it may be best to wait one more feed before deciding to put in an NGT.

18:00 60 ml offered, 30 ml left, 30 ml taken, 0 NG, No vomiting, No diarrhoea**

** Someone should stop you here and suggest that an NGT be used. The child vomited half of the 14:00 feed and took less than 80% of the next two feeds. Night is coming, and she will need to be fed well through the night or she is likely to become hypoglycaemic. If no one stops you, record more feeds in which Marina takes less than 80%. Someone should stop you soon.

Discuss the point of this demonstration, which is that staff should not simply record the feeds; they should also notice feeding problems and act promptly by calling a physician or using an NGT to finish feeds. They should not wait 24 hours between noticing a problem and taking action.

6. Short answer exercise

Have participants read and complete a short answer exercise about feeding and recording feeds on the 24-Hour Food Intake Chart on [page 14](#). They can check their own answers.

Nurses (and nutritionists) groups (when appropriate): Although participants can check their own answers to the short answer exercise, a facilitator should check the answers of any participant who seems to be having difficulty.

7. Exercise B: Individual work followed by individual feedback – Determining F-75 feeding plans for the next day

In this exercise, participants will need to refer to the criteria on [page 15](#) of the module. These criteria could be repeated as footnotes at the bottom of the F-75 look-up table.

After giving individual feedback, be sure to give each participant a copy of the answer sheet. It is important to finish Exercise B by the end of day 3 if possible. (Some groups may be able to finish Exercise C.)

Nurses (and nutritionists) groups (when appropriate): Have the nurses (and nutritionists) complete Cases 1 and 2 (Delroy and Pedro) of Exercise B independently and come to you for individual feedback.

Complete Case 3 (Rositha) orally as a group.

If the group is working slowly, Case 4 (Suraiya) may be omitted. Alternatively, you may use Suraiya as another demonstration in which participants stop you when an NGT is needed. Describe Suraiya’s first 2 days in hospital ([page 20](#) of the module). Put up a blank overhead of the 24-Hour Food Intake Chart and use the information on [page 21](#) to complete it, feed by feed, for Suraiya for day 3. Participants should stop you and tell you to insert an NGT at 22:00 or 24:00, when Suraiya feeds poorly for the second or third time. If they stop you, congratulate them for doing better than Suraiya’s ‘real’ nurses (and nutritionists), who let her go for the rest of the night without food. Discuss Suraiya’s feed plan for day 4.

8. Exercise C: Individual work followed by individual feedback – Feeding RUTF and/or F-100 during transition

Ask participants to continue doing individual work by reading [pages 22–25](#) and completing Exercise C. If it is already the end of day 3, Exercise C may be assigned for homework to be done on the middle day of the Case Management Training (day 4). The Course Director will inform you of any other work to be done on day 4. For example, participants from the same health facility or hospital may work together on Exercise E (preparing a ward schedule) or there may be an opportunity to observe a play session or an educational session with mothers.

If Exercise C is given as homework, remember to give individual feedback when the group returns. When giving individual feedback, be sure that participants understand the importance of giving RUTF and/or F-100 slowly and gradually during transition. Be sure that they understand the schedule for feeding during transition given on pages 22–25 of the module. Monitoring is very important during transition.

Possible question. Participants may ask if it is permissible to give a child more RUTF and/or F-100 if he/she is crying with hunger. During transition, it is very important to be cautious. If 4 hours is too long for a child to wait between feeds, it is fine to give 3-hourly feeds, keeping the total daily amount the same. If a child continues to cry for more, it is acceptable to give more **only if the staff is able to monitor the child very closely for danger signs**. Later, after transition, more food can be given according to the child’s appetite without the need for such close monitoring.

After individual feedback, give each participant a copy of the answer sheet.

9. Exercise D: Individual work followed by individual feedback – Feeding on RUTF and free-feeding on F-100 in rehabilitation

Ask the participant to continue doing individual work by reading pages 29–30 and completing Exercise D. Explain that the RUTF and F-100 look-up tables will be used in Exercise D.

Nurses (and nutritionists) groups (when appropriate): Instead of having the nurses (and nutritionists) read Section 4.0 (pages 29–30) individually, you may talk through this section.

Hold up the RUTF and F-100 look-up table for rehabilitation. Explain that, after transition, the look-up table for F-100 in rehabilitation is used to determine the appropriate range of feeds of F-100. Point out that the first set of ranges is for 4-hourly feeds of F-100, the second set of ranges is for daily volumes. The child can have as much as desired within these ranges.

Carefully talk through the important points on pages 29–30 of the module. (Omit the alternative methods of calculating the range for Delia.) Give examples of children that have finished transition, and ask participants to tell you what to write on the top of the 24-Hour Food Intake Chart.

Examples:

Weight 6.4 kg, finished all feeds yesterday, last feed was 200 ml
Write: *Give 6 feeds of 210 ↑ ml. Do not exceed 235 ml.*

Weight 8.3 kg, did not finish feeds yesterday, last feed was 250 ml
Write: *Give 6 feeds of 250 ↑ ml. Do not exceed 300 ml.*
(Note that the range for the next lower weight was used, 8.2 kg.)

In Exercise D, do Cases 1 and 2 (Delroy and Pedro) orally as a group. Ask participants to do Case 3 (Rositha) independently and come to you for individual feedback.

When giving individual feedback, be sure that the participant understands how to use the look-up tables. The child should be gaining weight at this point, and the child's **current** weight should be used to determine the appropriate range of volume for feeding. Within this range, the child's appetite determines how much to offer.

After individual feedback, give each participant a copy of the answer sheet for Exercise D.

10. Exercise E: Preparing a schedule for activities on the ward followed by group discussion

This exercise may be done on day 4 by groups from the same hospital. If so, you may be assigned to facilitate a hospital group for this exercise rather than your usual small group.

Ask the participants to read pages 36–38 of the module. Explain that Exercise E involves making a schedule for the ward. If arrangements have been made so that participants from the same hospital can work together on Exercise E, explain these arrangements.

Depending on how much time is available, you may need to fix a time limit for this exercise. One hour may be suitable. Stress that the schedule does not have to be perfect. This is an opportunity to discuss options and draft a possible schedule.

Some participants may feel that they are powerless to change the schedule at their hospitals. If this is the case, suggest that they develop a schedule that accepts absolute constraints, but perhaps incorporates some changes that others in the hospital might be able to make if they were convinced of the importance.

When most people are ready, lead a group discussion. (Some participants may wish to continue work on their schedules later on their own.) Ask participants:

- Was there a need to adjust shifts, kitchen hours or other aspects of your hospital's schedule to accommodate feeds? What adjustments did you make?
- How did you provide times in the schedule for play and educating mothers about feeding their children?

11. Exercise F: Individual work followed by individual feedback – Planning feeding for the ward

Ask participants to continue reading pages 41–42 and complete Exercise F. In this exercise, participants complete a Daily Ward Feeds Chart by adding three children to the chart and doing the calculations at the bottom of the form.

Nurses (and nutritionists) groups (when appropriate): If you anticipate that participants will have difficulty with this form, use an overhead transparency or an enlarged copy of the form to demonstrate to the group how to complete the form. Follow the instructions on page 41 as you demonstrate completion of the form. You may use the information in the example on page 42.

After the exercise, conduct individual feedback as usual. Give each participant a copy of the answer sheet. *Note:* On the answer sheet, at the bottom, the blank line should be filled in with ‘12’, since feeds are prepared every 12 hours on this ward. The amount for 24 hours is divided by 2 to determine the amount for 12 hours.

12. Exercise G: Group discussion – Preparing staff to do tasks related to feeding

Ask the participants to read [pages 45–46](#) and prepare for the discussion in Exercise G. The discussion will focus on ways to prepare hospital staff to do new tasks related to feeding.

Before leading this discussion, review the general guidelines for leading group discussions given at the end of this *Facilitator Guide*.

Use the questions given in the exercise in the module ([page 47](#)) to structure the discussion. In answering the questions, try to focus on one task at a time. For example, you may discuss how to prepare staff to do one of the following tasks:

- Prepare F-75 and F-100
- Measure F-75 and F-100
- Define daily and feed amounts of RUTF
- Record feedings on a 24-Hour Food Intake Chart
- Feed through an NGT

The above are specific tasks. If you try to discuss ‘feeding’ as a whole, the discussion will become general and less helpful.

Of course, answers will vary greatly. Participants may have some very creative ideas. As a model, here are some possible answers to the questions on [page 47](#) of the module, focusing on one task.

Examples

1. Nurses (and nutritionists) do not know how to prepare F-75 and F-100.
2. Nurses (and/or nutritionists) on duty at 7:00 and 19:00 will be responsible for this task. Two nurses (and nutritionists) from each of these shifts need to be selected to be responsible for preparing feeds. They need to be informed by the head nurse.
3. Information can be provided by written recipes.
4. Examples can be provided by demonstrations. A skilled person should demonstrate how to prepare the recipes.
5. The nurses (and nutritionists) should have supervised practice. A skilled person watches them prepare the recipes and corrects any problems.
6. A problem might be lack of ingredients. The kind of milk available might vary from day to day. Several recipes should be available for different kinds of milk. Training should be provided in how to make all of these recipes.

13. Additional materials – Managing infants 0–6 months old

Ask participants to read the additional information on pages 48–53. When the group finishes reading, the facilitator will discuss and answer questions in Section 6.1.

Ask participants to continue reading pages 53–57. When the group has finished, the facilitator will lead the group discussion on Section 6.2.

14. Summary of the module

1. Point out that participants have learnt about planning feeding for **individual patients** and for the **ward**. It is important to set aside a planning time every day. Once each patient's 24-Hour Food Intake Chart is reviewed and plans made for the day, then a Daily Ward Feeds Chart can be completed for the entire ward.
2. Remind participants of the importance of:
 - Starting with small, frequent feeds of F-75
 - Having a gradual transition to RUTF and/or F-100 over 3 days
 - Adjusting the feeding plan on RUTF and/or F-100 as the child's weight and appetite increase
3. Stress the need to carefully prepare hospital staff to do new feeding tasks.
4. Provide a summary on how to manage infants under 6 months with SAM.
5. Review any points that you have noted in the box below. Answer any questions that participants may still have. (If you cannot answer a question, offer to obtain more information and discuss it later.)

Facilitator Guidelines for Module 5: Daily Care

Procedures	Feedback
1. Distribute Module 5, Daily Care . Introduce the module.	-----
2. Ask participants to read through <u>page 2</u> of the module and complete the short answer exercise. Demonstration: Daily Care page of Inpatient Management Record.	Self-checked
3. Ask participants to read <u>pages 6–9</u> and complete the short answer exercise on <u>page 10</u> .	Self-checked
4. Ask participants to read <u>pages 11–12</u> and complete Exercise A.	Individual feedback
5. Ask participants to complete Exercise B as a group.	Group feedback
6. Demonstration: Monitoring Record of Inpatient Management Record. Ask participants to read <u>pages 17–21</u> and complete the short answer exercise.	Self-checked
7. Ask participants to complete Exercise C.	Individual feedback
8. Ask participants to complete Exercise D.	Individual feedback
9. Ask participants to read <u>page 32</u> .	Individual feedback
10. Optional demonstration: Weight Chart. Ask participants to read <u>pages 31–33</u> and complete the short answer exercise on <u>page 34</u> .	Self-checked
11. Ask participants to complete Exercise E.	Individual feedback
12. Summarise the module.	-----

Preparation for the module

Be sure that you have a supply of blank Daily Care pages and Monitoring Records in the classroom. Each participant will need one of each of these forms for exercises in the module.

1. Introduce Module 5

Explain that this module will focus on the routine tasks, besides feeding, that occur in the ward each day. These tasks, such as bathing, weighing and giving eye drops and antibiotics, are very important for a child’s recovery.

This module also focuses on monitoring the child with SAM, specifically monitoring pulse, respiration and temperature. Monitoring is critical so that problems can be identified and treatment can be adjusted as needed.

Point out the learning objectives on page 1 of the module. Most of these tasks will be practised on the ward. In the module, participants will learn to use three pages of the Inpatient Management Record: the Daily Care page, the Monitoring Record and the weight chart. (Hold up the enlarged copies.)

2. Reading, short answer exercise, demonstration

Ask participants to read through [page 2](#) of the module, complete the short answer exercise and check their own answers. Tell them that, after the short answer exercise, there will be a demonstration of how to use the Daily Care page of the Inpatient Management Record.

Demonstration of Daily Care page

Note: The focus of this demonstration is on how to use the form, not on the treatments, which will be discussed later in the module.

Show an overhead (or enlarged copy) of the Daily Care page. Point out that one column is used every day. There are enough columns for 21 days or 3 weeks.

Point out the items in the left column on this page. Not every child will have something recorded for every item. For example, some children will not have eye problems. When a row will not be used, it can be shaded out, or you can write 'NONE'.

Some items on the Daily Care page require that information be recorded (e.g., the child's weight, the degree of oedema, the volume of feed taken). Others require that the staff initial when a task is performed. For example, when a nurse gives an antibiotic, he/she should sign the form.

Write on the overhead or enlarged copy to set up a Daily Care page for a 2-year-old girl named Bianca. You will set up the left column of the form like the example on [page 5](#) in the module by entering appropriate times and doses. You will also record information for Bianca's first day in hospital. Talk as you write, for example:

- Bianca's first day in hospital is 8 January, so I record the date as 8 Jan for day 1.
- Bianca's weight is 8.80 kg.
- She has no oedema, so I record 0.
- Bianca has diarrhoea, but no vomiting, so I record only 'D'. (If she had vomiting only, I would record 'V'. If she had diarrhoea and vomiting, I would record both 'D' and 'V'.)
- She will be taking F-75.
- She will be fed on a 2-hourly basis, so I record that she will receive 12 feeds daily.
- At the end of the day, or the next morning, I will record the total volume that she took during day 1. (*Question: Where can I find the total volume? Answer: On the 24-Hour Food Intake Chart.*)
- Bianca has a medical complication (severe dermatosis) so she will be taking amoxicillin-clavulanic acid 150 mg (5 ml syrup) three times a day for 5–10 days, so I record the name of the drug, the dosage and times for three doses, 8 hours apart. These are times when medications are normally given in hospital. I draw a box to show that amoxicillin should be given at these times for 5 days. The box will show the nurses (and nutritionists) when to give the antibiotic and when to stop giving it. For some children, it may be necessary to draw several boxes for different drugs.
- I give Bianca her first dose of amoxicillin-clavulanic acid and sign the form to show that it has been given. Someone else will give the next dose and sign at 16:00 and 24:00.

- Bianca will receive a single dose of folic acid of 5 mg. I give her 5 mg of folic acid and sign the form.
- Bianca has not had a dose of vitamin A in the past month, but she has no eye signs and no measles. She is 2 years old, so I record that she will need a dose of 200,000 IU on week 4 or upon discharge from treatment. (*Explain that participants will learn more about when to give vitamin A later in this module. Do not discuss vitamin A now.*)
- She has no worms, so I write ‘NONE’ by ‘drug for worms’, but she will receive presumptive treatment after 1 week in treatment. So I write mebendazole 300 mg on day 8.
- Bianca’s dose of iron will be 0.75 ml, given twice daily at 8:00 and 20:00, starting from being on F-100 for 2 days. Notice that spaces are shaded out to show that iron should not be given early in treatment. Note that if she had been on RUTF, iron supplementation would not have been necessary.
- Bianca needs tetracycline ointment, so I circle that and write that drops should be given at 8:00, 14:00, 20:00 and 2:00. I indicate that the drops are needed in her left eye. Bianca does not need atropine, so I write ‘NONE’. (*Explain that participants will learn about treatment for eye problems later in this module. Do not discuss treatment of eye problems now.*)
- I give Bianca a drop of tetracycline in her left eye and sign the form. Other nurses will give the later doses and sign.
- I record +++ to show that Bianca has severe dermatosis.
- I circle that she will need bathing with 1% permanganate. Bianca is too sick to be bathed today, but I sponge 1% permanganate solution on the oozing spots and dress them with gauze. Then I sign the form.

Participants can see how Bianca’s Daily Care page was filled for 9 days by looking at the example on [page 5](#) of Module 5.

3. Reading and short answer exercise

Ask participants to read [pages 6–9](#) of the module and complete the short answer exercise.

Note: Participants may ask why children with signs of eye infection (pus, inflammation) need additional doses of vitamin A. The reason is that pus and inflammation may hide the signs of vitamin A deficiency. It is best to be safe and give these children the additional doses of vitamin A.

The short answer exercise is about vitamin A. Look to see that participants are completing it correctly.

Nurses (and nutritionists) groups (when appropriate): Before participants complete the short answer exercise on [page 10](#), review the guidelines for giving vitamin A on [pages 8–9](#) and answer any questions. It may be helpful for the group to complete the short answer exercise together orally. To complete this exercise as a group, ask each participant in turn to answer a question.

If participants complete the short answer exercise independently, you may want to give individual feedback to ensure that each participant understands when to give vitamin A.

4. Reading and Exercise A: Individual work followed by individual feedback – Deciding on treatment for eye signs

Ask participants to read pages 11–12 of the module and complete Exercise A on treatment of eye problems.

Nurses (and nutritionists) groups: (when appropriate): Before the exercise, review the table on page 12 of the module with the group and answer any questions. Explain that in Exercise A they will need to refer to the tables about vitamin A on pages 8–9 and to the table about eye drops on page 12.

Have your *Photographs* booklet out when you give individual feedback.

The next exercise will be done as a group. Those who have received feedback on Exercise A may continue reading in the module until everyone is ready for Exercise B.

5. Exercise B: Group work followed by group feedback – Using the Daily Care page of the Inpatient Management Record

The purpose of this exercise is simply to set up a Daily Care page properly. Although the exercise could be done individually, it will be easier and more interesting if done as a group.

Give each participant a blank Daily Care page. Participants will complete this page as you prompt them. After each prompt, allow enough time to record, but do not go so slowly that participants become bored. If you see that a participant is not writing, look to see what the problem is and explain.

First ask everyone to look at the Initial Management page for Lani on page 16 of the module. **Most of the information needed about Lani is on her Initial Management page.** Lani has SAM and has been admitted to the SAM ward. Ask participants to look for her date of admission. Ask them to record this date for day 1 on the Daily Care page. Then continue prompting as follows:

- Look for Lani’s admission weight on the Initial Management page. Record this as her weight for day 1.
- Record Lani’s degree of oedema.
- Record whether or not she has diarrhoea or vomiting.
- Record the type of feed that she should be given on day 1.
- Record the number of feeds that Lani should receive on day 1.
- You do not know how much she will take during the day, so leave the ‘total volume taken’ blank.
- Look at the antibiotics that Lani will receive. Recorded on the Initial Management page, these are: amoxicillin-clavulanic acid for 5–10 days.
- Notice the times that medications are given on the ward. These are listed on page 15 of the module: 8:00, 14:00, 16:00, 20:00, 24:00, 2:00.
- On the Daily Care page for Lani, write the dose of amoxicillin-clavulanic acid, the route of administration and the time it will be given, and draw a box to show when it

should be given. (*Do not sign the form yet. You are simply setting up the form, not giving the drugs.*)

- Record the provision of the single dose of folic acid that will be given.
- Record the dose of vitamin A that Lani needs.
- Lani does not have worms, so write 'NONE' by 'drug for worms'. Lani will receive presumptive treatment after 1 week in treatment. So I write mebendazole 300 mg on day 8.
- Look at the information on Lani's eye signs given on the Initial Management page. Decide what type of eye ointment or eye drops, if any, Lani needs. Record the type(s) of eye ointment or drops and the times to give them. (*Allow more time here as participants will need to record times to give two drugs.*)
- Record Lani's dermatosis classification and circle if she needs to be bathed with potassium permanganate.
- Lani has pus draining from her ear, and it needs to be wicked at least twice daily. Indicate this need on the Daily Care page at the bottom.

Distribute copies of the answer sheet for this exercise. Let each participant compare his/her form to the answer sheet. Discuss any differences or any questions that participants may have.

Note: The times selected by participants for wicking the ear may vary, although 8:00 and 2:00 seem logical choices given the times that nursing rounds are done in this example. Wicking should actually be done as often as needed, but by marking certain times on the form, it is more likely to be done.

6. Demonstration, reading and short answer exercise

Participants will learn about use of the Monitoring Record in this section. Have participants read the first three paragraphs on [page 17](#) of the module (or orally cover the points in these paragraphs).

Demonstration of Monitoring Record

Put up a blank overhead of the Monitoring Record (or use an enlarged copy).

Point out that a child's respiratory rate and pulse rate are recorded at the top, and temperature is graphed so changes can easily be seen. This monitoring should be done every 4 hours until the patient is stable on F-100. One page can be used for about 7 days if monitoring is done this frequently. If necessary, additional pages can be attached.

Use the following story to show how the form is completed. One facilitator can read the story while the other facilitator records:

- *Dikki's axillary temperature at 9:00 on day 1 is 36.0° C.* (Plot temperature with an 'X' on the line for 36° C in the middle of the left-most column of the graph. Record time below the column.)
- *Dikki's respiratory rate is 35 breaths per minute.* Record in left-most box at top of form. *His pulse rate is 90 beats per minute.* Record pulse rate below the respiratory rate. Point out that the temperature is recorded on the horizontal line midway between the vertical lines that separate the dates.

- *Dikki's axillary temperature at 13:00 is 36.5° C. His respiratory rate is still 35 and his pulse rate is 95. Record these on the Monitoring Record. Connect the points for the temperature graph.*
- *Dikki's axillary temperature at 17:00 is 37° C. His respiratory rate is still 35 and his pulse rate is back to 90. Record these on the Monitoring Record. Connect the points for the temperature graph. Point out that it is easy to see the increase in temperature.*

Explain that participants will practise using the Monitoring Record in the next exercises. Point out the example of a Monitoring Record on [page 21](#) of the module.

Ask participants to continue reading [pages 17–21](#) and then complete the short answer exercise on [page 22](#).

Nurses (and nutritionists) groups (when appropriate): Review the **Summary of Danger Signs** on [page 19](#) of the module with the group, as well as the other danger signs listed on the [same page](#).

After the group has done the short answer exercise independently, review the answers with them as a group.

7. Exercise C: Individual work followed by individual feedback – Use of the Daily Care page and Monitoring Record

In this exercise, participants will make entries on the Daily Care page that they set up for Lani in Exercise B. If their own work was correct, they may make entries on the form that they set up earlier. If there were many mistakes, they may use the answer sheet provided for Exercise B instead of their own work.

Participants will also need a blank Monitoring Record for this exercise.

Give individual feedback as usual. The purpose of this exercise is mainly to learn how to use the forms. In the next exercise, participants will practise interpreting the Monitoring Record to identify danger signs. Point out that the set of job aids includes one on danger signs.

Give the participants a copy of the answer sheets (two pages).

Nurses (and nutritionists) groups (when appropriate): Exercise C may be done as a group exercise in the same way that Exercise B was done. Read aloud the information about Lani as each participant records on a Monitoring Record. If necessary, a facilitator may simultaneously record on an overhead of the Monitoring Form. Discuss the questions at the end of the exercise. Distribute the answer sheet and discuss any differences.

8. Exercise D: Individual work followed by individual feedback – Reviewing Monitoring Records to identify danger signs

Ask the participants to complete Exercise D. This is a very important exercise. The Monitoring Records illustrate several different danger signs. At the end of individual feedback, review these danger signs with the participants:

- Lani – sudden drop in temperature (possibly became uncovered or missed a feed, possible infection)
- Carla – increase in both respiratory and pulse rates (possible heart failure)
- Bijouli – temperature increase, fast breathing (possible pneumonia)

Monitoring is recommended every 4 hours until after transition and the patient is stable. Ask the participant whether he/she thinks that monitoring can be done every 4 hours in his/her hospital. If not, how often does the participant think that monitoring can be done?

Give each participant a copy of the answer sheet. He/she may continue to read and work independently on the module.

Nurses (and nutritionists) groups (when appropriate): Complete Case 1 of Exercise D (Lani) as a group. Then have participants continue the exercise independently. Give individual feedback on Carla and Bijouli.

9. Testing the appetite with RUTF

Participants will be reminded that an improving appetite is a result of a general improving medical condition: The child's medical complication is resolving, the child is alert.

Monitoring the improvement of the appetite guides the decision for the transfer to the transition phase, where the child's appetite will be tested with RUTF at every feed, until the child eats the amount of RUTF at every meal prescribed for his/her weight.

10. Optional demonstration, reading and short answer exercise

Section 8.0 of the module describes how to complete a weight chart for a child with SAM. Most physicians will be familiar with weight charts and will be able to work independently to the end of the module without a demonstration. However, if you anticipate that your group will find the weight chart difficult, you might want to conduct a demonstration of how to complete it. When appropriate, nurses (and nutritionists) groups would have a demonstration.

Optional demonstration of weight chart

Use an overhead transparency or an enlarged copy of the weight chart. Point out that the vertical axis shows the possible range of weights for the child, and the horizontal axis shows the days that the child is in hospital. Each point plotted on the graph shows the child's weight on a certain day.

One facilitator should tell the story of a child and describe the graphing process using the italicised narration below. The other facilitator should record information, label the graph and plot weights following the directions given in regular type below:

- Opu is a 9-month-old boy. His weight on admission is 6.1 kg, his length is 67.0 cm and his MUAC is 112 mm. He has moderate (++) oedema on admission. Opu has oedema with severe wasting and is admitted to Inpatient Care. Record this information in the spaces to the left of the weight chart.
- What is the desired discharge weight for Opu? Look it up on the discharge weight look-up table. Participants should find that Opu's desired discharge weight (15% target weight) is 7.0 kg. Record this to the left of the weight chart.
- Now we need to set up the vertical axis of the graph. Point to the vertical axis. Each heavy line going across represents a whole number weight, such as 5.0 kg, 6.0 kg, etc. Each lighter line represents 0.1 kg. Point to the heavy lines and lighter lines.
- Since Opu has some oedema, he will lose some weight before he gains any weight. So we cannot put his starting weight at the bottom of the vertical axis. We have to leave some room for weight loss. Since Opu has moderate oedema, we will allow for 1 kg weight loss. If he had severe oedema, we would allow for a 2 kg or 3 kg loss (depending on his age). His starting weight is 6.1 kg, so we will write 6.0 kg by the first heavy line up from the bottom of the chart. 6.1 kg will be on the first light line above this. Label the heavy line '6.0 kg'.
- We can now label the other heavy lines that intersect the vertical axis. There is no need to label the lighter lines. We will just remember that each one represents 0.1 kg. Label the remaining heavy lines 5.0 (bottom line), 7.0 kg, 8.0 kg and 9.0 kg (top line).
- Now we can indicate the desired discharge weight on the graph. Draw a heavy line across the graph at 7.0 kg and label it 'desired discharge weight'.
- Now the graph is set up. We can plot the admission weight of 6.1 kg. To do this, we follow the line up from day 1, and across from the weight 6.1 kg, and make a mark at the intersection. The mark can be a heavy dot or an 'X'. Point to show how to find the intersection of lines above day 1 and across from weight 6.1 kg. Make a mark, such as an 'X', to plot the point.
- On the next day, we would plot a point for the weight on day 2. The weight on day 2 is the same, 6.1 kg. We then connect the points with a line. Plot a point for this weight and connect the points.
- On day 3, Opu has lost some weight. He weighs 5.9 kg. Plot the weight for day 3 and connect the points.
- On day 4, Opu has lost some more weight. He weighs 5.5 kg. He starts F-100 on day 4. Plot the weight for day 4 and connect the points. Underneath the point for day 4 write 'F-100'.
- On day 5, Opu has gained some weight. He weighs 5.6 kg. Plot the weight for day 5 and connect the points.
- On day 6, Opu has gained some more weight. He weighs 5.7 kg. Plot the weight for day 6 and connect the points.
- Over the next days, Opu continues to gain weight. Plot points for day 7 (5.8 kg), day 8 (5.9 kg), day 9 (5.9 kg) and day 10 (6.1 kg). Connect the points.
- You can easily see from looking at the graph that Opu first lost some weight due to reduced oedema fluid and then gained weight once he started on F-100. Point to show the line going down and then up again.

Participants should read pages 31–33 and complete the short answer exercise on page 34. They should check their own answers and continue to Exercise E.

Nurses (and nutritionists) groups (when appropriate): Facilitators may want to check answers to the short answer exercise individually to be sure that nurses (and nutritionists) understand how to read the weight chart.

11. Exercise E: Individual work followed by individual feedback – Preparing a weight chart

When giving individual feedback, be sure that participants understand why Daniel lost weight, i.e., that he was losing oedema fluid. Remind participants that children are not expected to gain weight until they are on RUTF and/or F-100.

Ask participants if weight charts like this one are kept in their hospitals. Ask if they can see the usefulness of this type of chart in showing a ‘picture’ of weight gains and losses.

Give each participant a copy of the answer sheets (two pages).

12. Summary of the module

1. Ask participants to tell you why it is important to keep good records of daily care, weights and results of monitoring. They may have a number of ideas. For example, good records are important for communicating with other staff (e.g., when the shift changes). Monitoring is important to quickly identify danger signs.
2. Review the learning objectives on page 1 of the module and explain that participants will have a chance to do some of these tasks during clinical practice.
3. Review any points that you have noted below, and answer any questions that participants may still have. (If you cannot answer a question, offer to obtain more information and discuss it later.)



Facilitator Guidelines for Module 6: Monitoring, Problem Solving and Reporting

Procedures	Feedback
1. Distribute Module 6, Monitoring, Problem Solving and Reporting . Introduce the module.	-----
2. Ask participants to read through <u>page 8</u> of the module and complete two short answer exercises (on <u>pages 3 and 9</u>).	Self-checked
3. Ask participants to complete Exercise A.	Individual feedback
4. Ask participants to read <u>pages 22–23</u> and prepare for group discussion in Exercise B.	Group discussion
5. Ask participants to read <u>pages 26–27</u> and complete the Weight Gain Tally Sheet in Exercise C. Then ask them to prepare for group discussion by answering questions on <u>page 30</u> of the module.	Group discussion
6. Ask participants to read <u>pages 31–32</u> and complete Exercise D.	Group discussion
7. Ask participants to read <u>page 42</u> and complete the short answer exercise on <u>page 43</u> .	Self-checked
8. Ask participants to read <u>pages 44–51</u> and prepare for the role-play in Exercise E on <u>page 52</u> . Conduct the role-play.	Group discussion
9. Lead a discussion following the use of Monitoring Checklists in the ward. (<i>Timing of this activity will vary.</i>)	Group discussion
10. Ask participants to read <u>pages 53–56</u> and complete Exercise F1, then read <u>pages 58–60</u> and then complete Exercises G and then F2. This will be followed by group discussion.	Group Discussion
11. Summarise the module.	-----

Preparation for the module

Calculators will be very helpful for some of the written exercises in this module.

Exercise E of this module is a role-play of a problem-solving session. A problem is described in this guide. Several roles are also described. You will need to photocopy the role descriptions and provide them to participants who will play those roles.

Optional: If the problem-solving role-play in Exercise E is successful, and if time allows, you may lead an additional role-play using a real problem observed in the hospital ward. So be alert during clinical sessions to identify any problems that might be discussed.

If time allows, during the clinical sessions on day 6 and/or day 7, participants will complete monitoring checklists like those given in the Supervisor’s Checklist for Inpatient Care Job Aid. Take copies of the monitoring checklists on days 6 and 7.

1. Introduce Module 6

Monitoring is important both for identifying progress and for identifying problems. This module focuses on monitoring as a way to identify problems so that they can be solved.

First, the module describes a general process for identifying and solving problems. Next, the module shows how problems can be identified by monitoring **individual patient** progress, weight gain and care. Then, the module shows how to identify problems by monitoring weight gain and patient outcomes on the **whole ward**. Finally, the module discusses monitoring of **ward procedures**.

Point out the learning objectives on page 1 of the module.

Stress that an important concept in this module is to look for the cause of a problem before deciding on a solution. The example on pages 4–5 shows the importance of this concept.

2. Reading and short answer exercises

Ask participants to read through page 8 of the module and complete the short answer exercises on pages 3 and 9.

As participants work individually, notice whether they are doing the short answer exercises easily. If they are having difficulty, assist as needed.

The short answer exercise on page 9 is about calculating daily weight gain. A calculator will be very helpful.

Nurses (and nutritionists) groups (when appropriate): Divide the reading into shorter segments and check understanding after each segment as follows:

- Have participants pause on page 3. Do the short answer exercise together as a group.
- Have participants pause at the end of page 6. Discuss the examples of causes and solutions on page 5. Be sure that participants understand the concept that the solution to a problem must be appropriate for its cause.
- Have participants pause after the example of page 8. Following the process described for calculating daily weight gain, use the flipchart to present the example on page 8 for the group. You may also wish to do the first problem of the short answer exercise on page 9 as a demonstration for the group.
- Have participants complete the short answer exercise on page 9 independently. Individually check participants’ answers to the short answer exercise.

3. **Exercise A: Individual work followed by individual feedback – Identifying progress and problems with cases**

Nurses (and nutritionists) groups (when appropriate): Before this exercise, review with participants the criteria for failure to respond on [page 10](#). Stress that these are listed merely as a guide to identifying problems. There may be other signs of problems as well.

Nurses (and nutritionists) groups should just do Case 1 (Ceri) in Exercise A. Omit Case 2 (Lennox) for nurses (and nutritionists) groups.

Participants may give slightly different answers from those on the answer sheets. They may find additional evidence of progress or problems. Their answers should be similar to those given and should be reasonable.

For some of the signs of progress or problems listed by the participant, ask ‘How do you know this?’ The participant should be able to show where he/she got the information from the Inpatient Management Record.

For example, it is important to note that Ceri is not eating well. This is evident on her 24-Hour Food Intake Chart. It is also important to notice that Ceri has not started to lose her oedema even on day 5. This is evident on the Daily Care page.

It is important to note that Lennox is not gaining weight on F-100. One can see this by looking at the recorded weights on the Daily Care page and by looking at Lennox’s weight chart.

According to the possible criteria on [page 10](#) of the module, both Ceri and Lennox are failing to respond. These criteria are simply a guide to help identify children that are having problems.

Give each participant a copy of the answer sheet. Ask the participant to read [pages 22–23](#), which discuss possible causes of failure to respond and possible solutions. They may also read the CMAM Manual, Annex 18 (pages 126–128) if they are interested and there is time.

4. **Exercise B: Individual work followed by group discussion – Identifying causes and solutions of problems**

Nurses (and nutritionists) groups (when appropriate): Nurses (and nutritionists) groups should just do Case 1 (Ceri) in Exercise B. Omit Case 2 (Lennox).

Be sure that participants prepare individually for Exercise B by writing answers to the questions listed.

Use the questions in the module ([pages 24–25](#)) to structure the discussion. Use the answer sheet as a guide for possible answers. If participants do not raise the ideas listed on the answer sheet, mention them yourself.

Stress that the causes are just possible causes. Investigation will be needed to determine the real causes.

Note of caution related to Case 2 (Lennox). Tuberculosis (TB) is often over-treated in children with SAM. Participants should not be too eager to jump to a diagnosis of TB just because a child is not gaining weight. Usually, if a child is not gaining weight on RUTF and/or F-100, the reason is inadequate intake. The clues in this case are as follows: Benzylpenicillin is not helping, there is no weight gain in spite of good intake, a chest x-ray shows a shadow on the lungs and there is a household contact who has TB.

Stress that low weight gain is usually due to inadequate intake, so always check intake first!

At the end of the discussion, give participants a copy of the answer sheet.

5. Exercise C: Individual work followed by group discussion – Determining whether there is a problem with weight gain on the ward

Ask participants to read pages 26–27 of the module and complete Exercise C to prepare for a group discussion. This exercise focuses on monitoring weight gain for the ward as a whole. Since only children on RUTF and/or F-100 are expected to gain weight, participants will look at weight gain only among these children.

Completing the Weight Gain Tally Sheet for the ward may seem like a cumbersome process to some participants. Point out that it needs to be done only once a month, preferably for the same week each month. The tally sheets can be a good basis for discussion and problem solving with staff.

As participants do individual work to prepare for the discussion, they may ask you to check their calculations and their tally sheets. Do so using the first part of the answer sheet provided. (Do not give the answer sheet to a participant yet; wait until after the group discussion.)

Be sure that participants prepare for the discussion by writing answers to questions on page 30. Use these questions to structure the discussion. Participants should raise the points given on the answer sheet. If they do not, raise these points yourself.

Other possible questions to discuss:

- Do you think that the problem of poor weight gain on this ward would have been noticed without completing a tally sheet?
- Is it practical to use this process (calculating and tallying weight gains) once a month in your hospital? If not, how could you still be aware of problems?

6. Exercise D: Individual work followed by group discussion – Determining common factors in deaths

Ask participants to read pages 31–32 and complete Exercise D, which will also be followed by a group discussion.

Use the questions given in the exercise to structure the discussion. Participants should mention the points made in the answer sheet. They may have other ideas as well. Be sure to mention any points from the answer sheet that the participants do not raise.

Stress that it is very important to review the circumstances of deaths. Common factors in these deaths may suggest important problems that need to be solved, such as the extensive problems in the Emergency Room at this hospital.

At the end of the discussion, let participants check the answers on pages 80–81 of the module.

7. Reading and short answer exercise

This section is about calculating case-fatality rates for a ward. Ask participants to read page 42 and complete the short answer exercise on page 43 about calculating case-fatality rates for a ward.

Nurses (and nutritionists) groups (when appropriate): Using the flipchart, do the first problem in the short answer exercise as an example for the group. As the group works individually on the rest of the short answer exercise, look to see if participants are having difficulty and help as needed.

Optional: You may wish to get the group's attention and hold a very brief discussion. Ask participants if they know the case-fatality rate for children with SAM at their hospitals. Ask how they could obtain the necessary information and calculate the rate. Could they do it on a regular basis?

8. Exercise E: Role-play – Problem-solving session

Ask participants to read pages 44–51 and then see you about a role in the role-play in Exercise E.

In this role-play, participants will each take a role of someone who might be on the staff of a hospital. When participants come to you, assign them one of the roles below:

- Physician in charge (this person will lead the problem-solving session)
- Senior nurse on duty in the morning (in some hospitals, this person is called the 'Matron')
- Senior nurse on duty in the afternoon
- Night nurse
- Junior auxiliary nurse
- Hospital administrator

Nurses (and nutritionists) groups (when appropriate): The role-play may go more smoothly if one facilitator plays the role of the ‘physician in charge’ and the other facilitator records on the flipchart. Other roles should be assigned to participants.

Prior to this exercise, photocopy the role descriptions on the following pages and cut them out. Give each person a role description. In front of each person, place a card or folded piece of paper showing that person’s role. These cards will help participants remember who is playing what role.

Tell the ‘physician in charge’ that he/she should take the lead in the discussion and should follow the process outlined on pages 50–51 of the module. Try not to interrupt. Assist only if the discussion becomes very much ‘off track’.

Ask someone to help by recording on the flipchart. The format below will help provide structure.

Example of flipchart format

Problem:	
Causes:	Solutions:

After the role-play, discuss what went well and what could have been improved. Ask if participants could conduct such a session in their hospitals. Ask if all of the solutions identified appear to be appropriate for the causes of the problem.

If there is time, you may do another role-play using a real problem observed in ward visits.

Descriptions of roles

Physician in charge

From December through February, there were no deaths in the SAM ward. In the past week, there have been two deaths.

- Kari, a 15-month-old girl, died during her second night in hospital (last Monday). She was dead when you arrived in the morning.
- Ramon, a 24-month-old boy, died during his third night in hospital (last Wednesday). His NGT had been removed and it was his first night to feed orally.

Both children were supposed to be taking F-75 every 2 hours.

There is no monitoring data for the nights of the deaths, and the 24-Hour Food Intake Charts were not kept during the night.

You suspect that the children were not fed during the night and that they became hypoglycaemic and died.

You want to know more about what happened so that this will not happen again.

Senior nurse (morning), also known as the Matron

You are on duty from 7:00 until 15:30. You remember the deaths of Kari and Ramon last week, although you were not present at night when they occurred.

When you arrived in the morning after Kari had died, the night nurse and junior nurse (who had been on duty all night) were visibly upset. They had been trying to reach the physician in charge for over 2 hours.

You are not sure what happened during the night, but you are very protective of the nursing staff, and you do not want to lose any more nurses (and nutritionists). You feel that the ward is understaffed and overworked.

On the morning after Ramon's death, you found the junior nurse alone in the ward. The other night nurse had not reported for duty.

Senior nurse (afternoon/evening)

You are on duty from 15:00 until 22:30. You heard about the deaths of Kari and Ramon last week, although you were not present when they occurred.

When you left at 22:30 Monday night, Kari was fine and was taking F-75 well at 2-hourly feeds.

On Wednesday evening, at about 18:00, you removed Ramon's NGT so that he could take F-75 orally. He had two successful oral feeds before you left for the night. When you left, the junior nurse had arrived, but the other night nurse had not arrived.

Night nurse

You were recently moved from the infectious disease ward to the SAM ward. You have been on the night shift for only 2 weeks, and you are not yet used to the schedule. You get very tired at night.

You do not understand why children should be awakened every 2 hours to eat when they are sleeping soundly. When you wake the children, they often refuse to eat anyway.

You received no special training when you were moved to the SAM ward. You were simply told to feed the children according to their charts throughout the night.

On Monday night, when Kari died, the junior auxiliary nurse woke you at 4:30 in a panic. You were not surprised when you couldn't reach the physician.

On Wednesday night, when Ramon died, you did not come to work because your husband did not come home, and there was no one to stay with your own children. It was too late to find a substitute.

Junior auxiliary nurse

You work in the ward at night and were on duty when both Kari and Ramon died. You try very hard to stay awake all night and feed the children, but sometimes you fall asleep.

You are very conscientious, and you were extremely upset when the children died. In Kari's case, you went to feed her at about 4:00 and she was dead. She was uncovered when you found her. Her mother had gone home for the night and was to return in the morning. You woke the other nurse and called the physician, but he/she could not be reached.

In Ramon's case, you were alone because the other nurse did not show up. You realised that he was not taking his feeds well at 24:00 and 2:00, but you could not spend a lot of time with him because you had other children to feed. Ramon's mother was very ill and was not with him in hospital. You do not know how to insert an NGT.

At 4:00, you had trouble rousing Ramon and tried to call the physician, but he/she could not be reached. Ramon never woke up.

Hospital administrator

The hospital recently lost some funding from the government, and you had to decrease staff. You decreased the number of night staff in particular, since the patients are sleeping then anyway.

You are not happy with the SAM ward because patients stay there so long. You wish they could be released after a week, or at most 2 weeks, and fed at home.

Recently, the senior nurses approached you about providing better accommodations for mothers at night, so that mothers would be more likely to stay with their children. You said there was simply no money for this. However, you realise during the problem-solving discussion that additional cots for mothers would be less expensive than hiring more night staff, and children with SAM are best sleeping with their mothers, which also will affect faster healing.

9. Group discussion – Results of monitoring food preparation and ward procedures

If there is time during a clinical session (day 6 and/or 7), participants will use Monitoring Checklists (like those in the Supervisor's Checklist for Inpatient Care Job Aid) to monitor food preparation and ward procedures.

After the monitoring session, lead a group discussion. It would be inappropriate to discuss problems in front of the ward staff, so the discussion should take place back in the classroom. (*Note:* If there was no time to use the checklists while in the ward, participants may be able to

complete them back in the classroom from memory of what they have observed during the visits. Or they may complete them from memories of their own hospitals.)

Ask participants what problems they observed ('No' answers on the checklist). Select one or two important problems and discuss possible causes and possible solutions. You may use the problems in another role-play as in Exercise E.

10. Group discussion – Reporting for SAM

Ask participants to read through [pages 53–56](#) (Section 7.1). When the participants finish reading Section 7.1, demonstrate how to use the tally sheet based on the Inpatient Management Records of children in treatment and discharged during the given time period of reporting, using the Entry and Exit Categories for Monitoring the Management of SAM in Children 6–59 Months Job Aid.

Exercise F1 will be done in groups. When the groups have finished doing Exercise F1, lead a group discussion of the exercise.

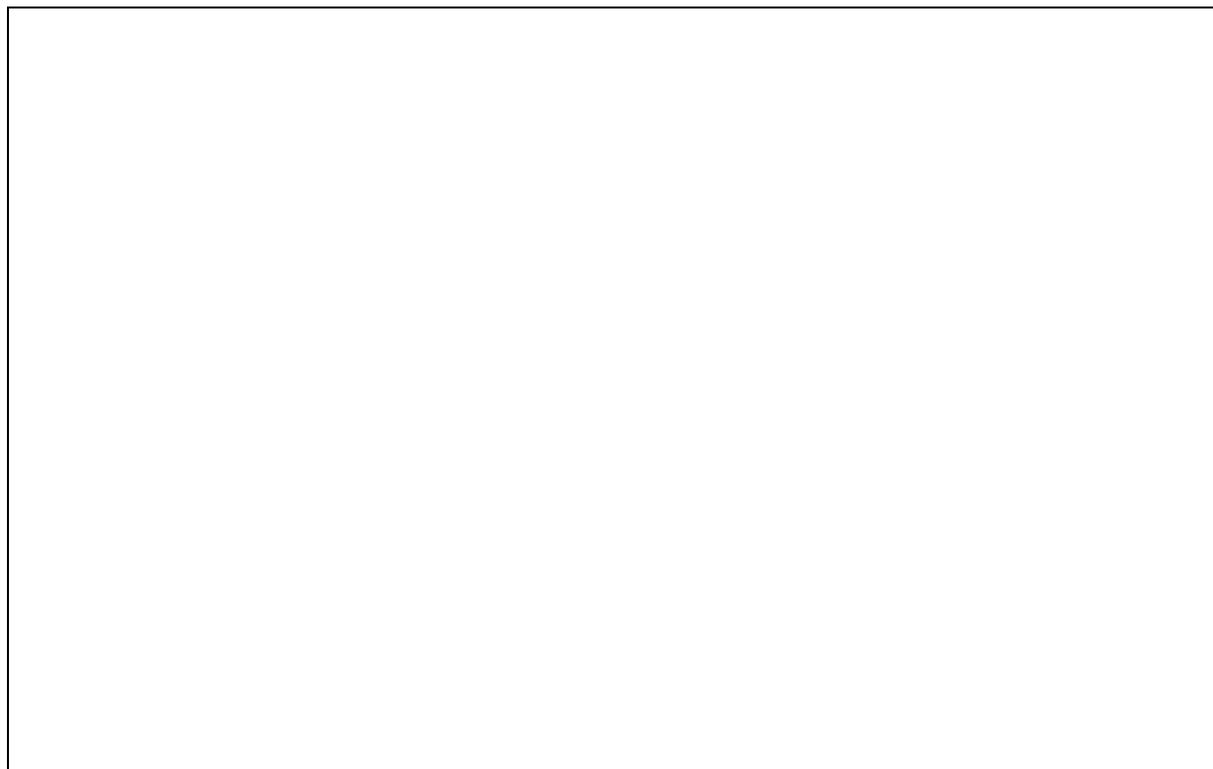
Ask participants to continue reading [pages 58–60](#) (Section 7.2). When the participants finish reading Section 7.2, demonstrate how to use the monthly site report based on the site tally sheet. Explain how one could calculate the performance indicators for children who remain in Inpatient Care until full recovery. As this is rarely the case, remind them that these boxes can remain empty, but also that the absolute numbers can be used to interpret performance. Performance indicators in Outpatient Care can also be calculated.

Exercise G will be completed in groups (use the same groups for completing Exercises F1, G and F2). Copies of Inpatient Management Record forms (pages 1 and 6 only) of five children are distributed, and participants will review the Inpatient Management Records, complete the tally sheet and discuss the findings.

Complete Exercise F2 by filling in the monthly site report based on the Exercise F1 site tally sheet. When the groups have finished doing Exercise F2, discuss the findings. Discuss when indicators of performance are calculated and how they are calculated, and when absolute numbers only will be used, for interpreting performance of Inpatient Care. Briefly explain how, per the different levels of catchment area (i.e., administrative unit and/or locality, state and national levels), monthly reporting sheets from the Inpatient Care and Outpatient Care sites are combined in a monthly locality or state report providing information on the overall management of SAM. The monthly locality, state or national reports will be used to investigate trends in SAM caseload and quality of care over time.

11. Summary of the module

1. Review the problem-solving process outlined in the introduction on [page 1](#) of the module. Stress the importance of investigating causes before deciding on solutions.
2. Stress the importance of reporting for the management of SAM.
3. Review any points that you have noted below, and answer any questions that participants may still have. (If you cannot answer a question, offer to obtain more information and discuss it later.)



Facilitator Guidelines for Module 7: Involving Mothers in Care

Procedures	Feedback
1. Distribute Module 7, Involving Mothers in Care . Introduce the module.	-----
2. Ask participants to read through page 2 and prepare for the discussion in Exercise A on page 3 .	Group discussion
3. Ask participants to read page 4 and prepare for the role-plays in Exercise B on page 5 . Conduct the role-plays.	Group discussion
4. Ask participants to read pages 6–9 and page 11 . Show video: Teaching mothers about home feeding.* Conduct a group discussion of the video and Exercise C on page 10 .	Group discussion
5. Ask participants to read page 12 . They may also read Annex 17 of the CMAM Manual (pages 124–125). Show video: Malnutrition and mental development.*	Group discussion
6. Ask participants to read pages 12–13 , study the Referral Form Job Aid and Discharge Card (Annex C of the module) and prepare for the role-play in Exercise D on page 14 . Conduct the role-play.	Group discussion
7. Ask participants to finish reading the module, pages 15–17 . Optional: Exercise E on page 18 .	Group discussion (optional)
8. Summarise the module.	-----

* If it is more convenient, the group may do all of the reading in these steps and then view both videos.

Preparation for the module

Two video segments are shown in this module. Be sure that you have the video and know when and where the video player is available.

For the role-plays in Exercise B, it will be helpful to have some props: a baby doll with clothes, a basin for bathing, a towel and a cup and saucer for feeding. If these are not available, be creative about substitutions. For example, a rolled-up sweater can be a ‘baby’.

Photocopy and cut out role descriptions for the role-plays in Exercises B and D.

Blank sample Discharge Cards are provided with this Case Management Training. Before role-plays 1 and 2 in Exercise D, complete a Referral Form and a Discharge Card with the following information. The ‘nurse’ will use this card in the role-play to give instructions to a mother. All of the information should be appropriate for the local area.

Role-play 1

- Name, date of birth, address for a 15-month-old boy
- Admission and discharge dates showing child has been in hospital 7 days

- Admission weight: 4.9 kg, MUAC 111 mm, oedema: mild (+)
- Discharge weight: 5.6 kg
- Referral from hospital
- Amount of RUTF given to the child and how many to consume per day
- Referred to Outpatient Care
- RUTF key messages provided to the mother and understood (observations should be made during the mother's stay in hospital)
- Medications and supplements to be continued in Outpatient Care: Fill in blanks with appropriate information for local formulations
- Enter a place and date for planned follow-up once a week in Outpatient Care
- Check to show that the child has received all immunisations

Role-play 2

- Name, date of birth, address for a 2-year-old boy
- Admission and discharge dates showing child has been in hospital 18 days
- Admission weight: 7.6 kg, MUAC 111 mm, length 78 cm
- Discharge weight: 8.9 kg (15% target weight)
- Note: The target weight for discharge is added on the Discharge Card so that it will be easily understood in Outpatient Care that the mother may visit for follow-up
- What to feed: Local cereal staple, local vegetables and fruits, local sources of protein, local snacks
- How much/how often: Describe serving size in local terms; give family foods at meals 3 times each day, plus 2 nutritious snacks between meals
- Medications and supplements: Fill in blanks with appropriate information for local formulations
- Enter a place and date for planned follow-up 1 week from discharge date
- Enter a place and date to come for vitamin A 6 months from discharge date
- Check to show that the child has received all immunisations

Decide whether your group will conduct the optional discussion in Exercise E. Your decision may be affected by the time available, the number of participants who work in hospitals where early discharge is common, typical hospital policies in the area, etc.

1. Introduce Module 7

Explain that emotional, mental and physical stimulation are critical for children that have SAM. This module describes ways that hospitals can involve mothers to ensure that children receive such stimulation, both in hospital and later at home.

It is hoped that participants have observed or will observe examples of how to involve mothers in the hospital ward. For example, they may have seen a teaching session or a play session that involved mothers. They will also see a video showing these types of sessions with mothers.

Point out the learning objectives on [page 1](#) of the module.

2. Exercise A: Group discussion – Ways to involve mothers and other family members

Ask participants to read through [page 2](#) of the module and prepare for the group discussion in Exercise A on [page 3](#).

From personal experience and from ward visits, participants are sure to have many ideas of ways to involve family members, and things that can hinder involvement.

You may wish to structure the discussion by asking each participant in turn for one idea. Record the ideas on the flipchart.

Note: No answer sheets are given for the exercises in this module as they are all discussions or role-plays for which there are no ‘right’ answers.

3. Exercise B: Role-play – Teaching a mother to bathe or feed a child

Ask participants to read [page 4](#) of the module and then come to you for instructions for the role-play. You will need to assign roles to four people for this exercise. For Role-play 1, assign someone to be a ‘bossy nurse’ and someone to be a mother. For Role-play 2, assign someone else to be a ‘nice nurse’ and someone else to be a mother. Others will observe and take notes.

Provide props as needed (for example, a baby doll, a basin for bathing, a towel, a cup and saucer) or creative substitutions for these.

Give role descriptions to those who will play roles. Role descriptions are below.

After each role-play, lead a brief discussion using the questions given in the module. Review the teaching process outlined on [page 4](#) of the module. You may need to explain about the questions, which are asked to ensure that the learner understands. They should not be answered simply ‘yes’ or ‘no’. They should be more open-ended questions that ask, ‘How, what, how many, etc.’.

For example, if a nurse has taught a recipe, she might then ask the mother such questions as: ‘What ingredients will you use?’ ‘How much oil will you put in?’ ‘How much will you feed your child?’

Role descriptions for Exercise B

Role-play 1 – Bossy nurse

You are a bossy and cold nurse. You are experienced, and you feel that you know better than all of the mothers. You tend to feel it is their fault that their children are malnourished.

You are supposed to teach a mother how to bathe her child. Instead of first showing her how, you start off by saying, ‘Let’s see how you do...’. Then you are critical of how she undresses the child, holds the child, etc. You end up taking over the procedure.

Role-play 1 – Mother

You are a young mother and this is your first child. You have no husband to help you, and you are very poor.

Your 15-month-old daughter has been on the ward for 2 days. She is better and is taking F-75 well by mouth now. She will be given a bath today. Although you are accustomed to bathing your daughter at home, you are nervous about doing it with the nurse watching you. You fear that the nurse will criticise you.

Role-play 2 – Nice nurse

You are a helpful and kind nurse. You feel it is important for mothers to learn how to feed and care for their children in the hospital.

You are going to teach a mother how to feed her child and encourage the child to eat. You first explain what you are going to do, then you show the mother how to hold the child etc., then you encourage her to try. You give helpful, positive suggestions. If the mother asks a question, you assure her that it is a good question, and you answer it carefully.

Role-play 2 – Mother

You are very timid and frightened about being in hospital. You are afraid your son, age 20 months, will die.

Your son was unable to eat on arrival at the hospital and was fed by NGT for the first day. At the last two feeds, the nurse fed him successfully orally. At this feed, she will show you how to feed him.

4. Video: Teaching mothers about home feeding, Exercise C: Group discussion – Teaching mothers to feed children at home

Explain that this video segment will show a teaching session in which *khichuri* (a home food described in the module) is prepared. In the video, the mother is preparing a large amount of food for a hospital ward. Amounts used in the home would be smaller, as in the recipe in the module. Explain that some things have been done before the video begins. For example, the rice and lentils have been thoroughly washed, and the mother has washed her hands.

After the video, ask participants what they thought was done well in the teaching session and what could have been done better. How were examples given in the teaching session? How did mothers practise?

Participants may wish to view the video again. This is fine as long as other groups are not waiting.

Ask participants to begin thinking about how they will teach mothers about feeding in their own hospitals. Use the questions in Exercise C to structure a discussion.

5. Reading and video: Malnutrition and mental development

Have participants read [page 12](#) of the module and Annex 17 of the CMAM Manual ([pages 124–125](#)).

Explain that this video shows how mental development can be encouraged through play in the hospital ward, at home and in the community. At three points in the video, there are opportunities for discussion. Questions for discussion will appear on the screen. These questions are printed below for your reference. Stop the video and take a moment to discuss these questions.

First discussion point in video

How can you:

- Make mothers feel welcome?
- Show your respect?
- Encourage play and interaction?
- Make the ward friendly?

What should mothers be allowed to do?

Second discussion point in video

Can you use any of these ideas (from the video)?

How will you:

- Use everyday activities?
- Involve mothers?

Third discussion point in video

Talk about:

- Toys
- How to start a programme of play and interaction

Stress that mental stimulation may be achieved during normal, everyday activities (such as washing and cooking) and by playing with simple, homemade toys. It does not require great amounts of time or expense.

6. Exercise D: Role-play – Giving discharge instructions

Ask participants to read [pages 12–13](#) of the module, study the sample Discharge Card and then come to you for instructions about the role-play in Exercise D.

Assign one person to be the nurse and one person to be the mother. Give the nurse the Discharge Card that you prepared earlier. Give the nurse and the mother the role descriptions that follow, and orient them on the purpose of the role-play.

Role descriptions

Role-play: Nurse

Follow the order of the Discharge Card carefully, covering all of the information on the card. Ask the mother questions to ensure that she understands. Specific information that this mother needs includes:

- Give medications that should be continued at home, and ensure that the mother is clear on how much to give to the child.
- Ask the mother where the closest health facility with Outpatient Care to her home is located, and refer her to the health facility.
- Provide the RUTF key messages:
 - a. RUTF is a food and medicine for very thin children only. It should not be shared.
 - b. Sick children often do not like to eat. Give small, regular meals of RUTF and encourage the child to eat often (if possible eight meals per day). Your child should have ___ packets per day.
 - c. RUTF is the only food sick/thin children need to recover during their time in Outpatient Care (however, breastfeeding should continue).
 - d. For young children, continue to breastfeed regularly.
 - e. Always offer the child plenty of clean water to drink or breast milk while he/she is eating RUTF.
 - f. Wash the child's hands and face with soap before feeding if possible.
 - g. Keep food clean and covered.
 - h. Sick children get cold quickly. Always keep the child covered and warm.
 - i. Do not stop feeding even if a child has diarrhoea. Continue to feed RUTF and (if applicable) breast milk.
 - j. Return to the health facility whenever the child's condition deteriorates or if the child is not eating sufficiently.
- This child is up-to-date on immunisations.
- The child needs a follow-up visit in 1 week at the Outpatient Care facility.
- Provide a 1-week ration of RUTF or until the mother can visit the health facility to which she is referred.

Also given information on danger signs, how to play with the child, etc.

You are consistently courteous and helpful to the mother, correcting her nicely if she misunderstands.

Mother

You are very eager to go home after 18 days in hospital with your 2-year-old son who has recovered, but you are concerned that you may not have all the necessary foods at home to keep him healthy. For example, you may not have (*meat or local source of protein*). You wonder if you can feed him something else.

You understand most of what the nurse says, but you miss a few points when she asks you follow-up questions. (This will allow the nurse to correct you in a nice way.)

During the role-play, observers should refer to their Discharge Cards and make notes so that they can answer the questions in the module. After the role-play, use these questions to structure a brief discussion.

Also ask whether this type of Discharge Card would be useful in the participants' own hospitals. How would they need to modify it?

7. Optional Exercise E: Group discussion – Issues related to early discharge

Ask participants to finish reading the module. If you plan on having the optional discussion in Exercise E, ask participants to prepare for the discussion.

Use the questions given in the module to structure the discussion.

8. Summary of the module

1. Emphasise the importance of involving mothers and family members in care at the hospital, as well as the importance of preparing them to continue good care at home.
2. Perhaps ask each participant to say one thing he/she will do in his/her hospital to encourage families to participate in care or to make the ward more stimulating for children. This can be a small thing, such as providing chairs for mothers or putting colourful pictures on the walls. Or it may be a large task, such as changing a hospital policy.
3. Review any points that you have noted below, and answer any questions that participants may still have. Tell participants that you have enjoyed working with them. If there are any further activities, such as a closing ceremony or a questionnaire to complete, give participants the relevant instructions.

Note: There will be an End-of-Course Evaluation and a post-course test to organise. The Course Director will provide the questionnaires for participants to complete in the small groups.



Facilitator Guidelines for All Modules

1. Techniques for motivating participants

Encourage interaction

1. During the first day, you will talk individually with each participant several times (for example, during individual feedback). If you are friendly and helpful during these first interactions, it is likely that the participants will overcome their shyness, realise that you want to talk with them and interact with you more openly and productively throughout the Case Management Training.
2. Look carefully at each participant's work (including answers to short answer exercises). Check to see if participants are having any problems, even if they do not ask for help. If you show interest and give each participant undivided attention, the participants will feel more compelled to do the work. Also, if the participants know that someone is interested in what they are doing, they are more likely to ask for help when they need it.
3. Be available to talk with participants as needed.

Keep participants involved in discussions

4. Frequently ask questions of participants to check their understanding and to keep them actively thinking and participating. Questions that begin with 'what', 'why' or 'how' require more than just a few words to answer. Avoid questions that can be answered with a simple 'yes' or 'no'.

After asking a question, PAUSE. Give participants time to think and volunteer a response. A common mistake is to ask a question and then answer it yourself. If no one answers your question, rephrasing it can help break the tension of silence. But do not do this repeatedly. Some silence is productive.

5. Acknowledge all participants' responses with a comment, a 'thank you' or a definite nod. This will make the participants feel valued and encourage participation. If you think a participant has missed the point, ask for clarification, or ask if another participant has a suggestion. If a participant feels his/her comment is ridiculed or ignored, he/she may withdraw from the discussion entirely or not speak voluntarily again.
6. Answer participants' questions willingly, and encourage participants to ask questions when they have them rather than to hold the questions until a later time.
7. Do not feel compelled to answer every question yourself. Depending on the situation, you may turn the question back to the participant or invite other participants to respond. You may need to discuss the question with the Course Director or another facilitator before answering. Be prepared to say, 'I don't know but I'll try to find out'.
8. Use names when you call on participants to speak, and when you give them credit or thanks. Use the speaker's name when you refer back to a previous comment.

9. Maintain eye contact with the participants so everyone feels included. Be careful not to always look at the same participants. Looking at a participant for a few seconds will often prompt a reply, even from a shy participant.

Keep the session focused and lively

10. Keep your presentations lively:
 - Present information conversationally rather than read it.
 - Speak clearly. Vary the pitch and speed of your voice.
 - Use examples from your own experience, and ask participants for examples from their experience.
11. Write key ideas on a flipchart as they are offered. (This is a good way to acknowledge responses. The speaker will know his/her suggestion has been heard and will appreciate having it recorded for the entire group to see.)

When recording ideas on a flipchart, use the participant's own words if possible. If you must be more brief, paraphrase the idea and check it with the participant before writing it. You want to be sure that the participant feels that you understood and recorded his/her idea accurately.

Do not turn your back to the group for long periods as you write.

12. At the beginning of a discussion, write the main question on the flipchart. This will help participants stay on the subject. When needed, walk to the flipchart and point to the question.

Paraphrase and summarise frequently to keep participants focused. Ask participants for clarification of statements as needed. Also, encourage other participants to ask a speaker to repeat or clarify his/her statement.

Restate the original question to the group to get them focused on the main issue again. If you feel someone will resist getting back on track, first pause to get the group's attention, tell them they have gone astray and then restate the original question.

Do not allow several participants to talk at once. When this occurs, stop the talkers and assign an order for speaking. (For example, say 'Let's hear Dr Samua's comment first, then Dr Salvador's, then Dr Lateau's'.) People usually will not interrupt if they know they will have a turn to talk.

Thank participants whose comments are brief and to the point.

13. Try to encourage quieter participants to talk. Ask to hear from a participant in the group who has not spoken before, or walk toward someone to focus attention on him/her and make him/her feel that he/she is being asked to talk.

Manage any problems

14. Some participants may talk too much. Here are some suggestions on how to handle an overly talkative participant:
- Do not call on this person first after asking a question.
 - After a participant has gone on for some time say, 'You have had an opportunity to express your views. Let's hear what some of the other participants have to say on this point'. Then rephrase the question and invite other participants to respond, or call on someone else immediately by saying, 'Dr Samua, you had your hand up a few minutes ago'.
 - When the participant pauses, break in quickly and ask to hear from another member of the group or ask a question of the group, such as, 'What do the rest of you think about this point?'
 - Record the participant's main idea on the flipchart. As he/she continues to talk about the idea, point to it on the flipchart and say, 'Thank you, we have noted your idea'. Then ask the group for another idea.
 - Do not ask the talkative participant any more questions. If he/she answers all the questions directed to the group, ask for an answer from another individual specifically or from a specific subgroup. (For example, ask, 'Does anyone on this side of the table have an idea?')
15. Try to identify participants who have difficulty understanding or speaking the course language. Speak slowly and distinctly so that you can be more easily understood and encourage the participant in his/her efforts to communicate.

Discuss with the Course Director any language problems that might seriously impair the ability of a participant to understand the written material or the discussions. It may be possible to arrange help for the participant.

Discuss disruptive participants with your co-facilitator or with the Course Director. (The Course Director may be able to discuss matters privately with the disruptive individual.)

Reinforce participants' efforts

16. As a facilitator, you will have your own style of interacting with participants. However, a few techniques for reinforcing participants' efforts include:
- Avoiding use of facial expressions or comments that could cause participants to feel embarrassed
 - Sitting or bending down to be on the same level as the participant when talking to him/her
 - Answering questions thoughtfully, rather than hurriedly
 - Encouraging participants to speak to you by allowing them time
 - Appearing interested, saying 'That's a good question/suggestion'

17. Reinforce participants who:

- Try hard
- Ask for an explanation of a confusing point
- Do a good job on an exercise
- Participate in group discussions
- Help other participants (without distracting them by talking at length about irrelevant matters)

2. Techniques for relating modules to participants' jobs

1. Discuss the use of these case management procedures in participants' own hospitals. The guidelines for giving feedback on certain exercises suggest specific questions to ask. Be sure to ask these questions and listen to the participants' answers. This will help participants begin to think about how to apply what they are learning.

Reinforce participants who discuss or ask questions about using these case management procedures by acknowledging and responding to their concerns.

3. Techniques for adapting materials for nurses (and nutritionists)

1. Use the suggestions for adapting materials for nurses (and nutritionists) groups (when appropriate) given in shaded boxes in the *Facilitator Guide*. These suggest additional demonstrations or explanations that may be needed. They also suggest parts of exercises that may be omitted, or that may be discussed as a group rather than done individually.
2. Be sensitive to the needs of your group. Give enough explanation that participants do not become frustrated. However, be aware that too much explanation can be boring and can be seen as condescending.
3. If your group becomes very frustrated, or is very far behind in the schedule, talk with the Course Director about adjustments that may be needed, such as omitting additional exercises or sections of reading.

4. Techniques for assisting co-facilitators

1. Spend some time with the co-facilitator when assignments are first made. Exchange information about prior teaching experiences and individual strengths, weaknesses and preferences. Agree on roles and responsibilities and how you can work together as a team.
2. Assist one another in providing individual feedback and conducting group discussions. For example, one facilitator may lead a group discussion, and the other may record the important ideas on the flipchart. The second facilitator could also check the *Facilitator Guide* and add any points that have been omitted.
3. Each day, review the teaching activities that will occur the next day (such as role-plays, demonstrations and drills), and agree who will prepare the demonstration, lead the drill, play each role, collect the supplies, etc.

4. Work together on each module rather than taking turns having sole responsibility for a module.

5. When participants are working

1. Look available, interested and ready to help.
2. Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers or not turning pages. These are clues that the participant may need help.
3. Encourage participants to ask you questions whenever they would like some help.
4. If important issues or questions arise when you are talking with an individual, make note of them to discuss later with the entire group.
5. If a question arises that you feel you cannot answer adequately, obtain assistance as soon as possible from another facilitator or the Course Director.
6. Review the points in this *Facilitator Guide* so that you will be prepared to discuss the next exercise with the participants.

6. When providing individual feedback

1. Before giving individual feedback, refer to the appropriate notes in this guide to remind yourself of the major points to make.
2. Compare the participant's answers to the answer sheet provided.
3. If a participant's answer to any exercise is incorrect or is unreasonable, ask the participant questions to determine why the error was made. There may be many reasons for an incorrect answer. For example, a participant may not understand the question, may not understand certain terms used in the exercise, may use different procedures at his/her hospital, may have overlooked some information about a case or may not understand a basic process being taught.
4. Once you have identified the reason(s) for the incorrect answer to the exercise, help the participant correct the problem. For example, you may only need to clarify the instructions. On the other hand, if the participant has difficulty understanding the process itself, you might try using a specific case example to explain. After explaining, ask the participant questions to be sure he/she understands.
5. Give each participant a copy of the answer sheet, if one is provided.
6. Always reinforce the participant for good work by (for example):
 - Commenting on his/her understanding
 - Showing enthusiasm for ideas for application of the skill in his/her work
 - Telling the participant that you enjoy discussing exercises with him
 - Letting the participant know that his/her hard work is appreciated

7. When leading a group discussion

1. Plan to conduct the group discussion at a time when you are sure that all participants will have completed the preceding work. Wait to announce this time until most participants are ready, so that others will not hurry.
2. Before beginning the discussion, refer to the appropriate notes in this guide to remind yourself of the purpose of the discussion and the major points to make.
3. Always begin the group discussion by telling the participants the purpose of the discussion.
4. Often there is no single correct answer that needs to be agreed on in a discussion. Just be sure that the conclusions of the group are reasonable and that all participants understand how the conclusions were reached.
5. Try to get most of the group members involved in the discussion. Record key ideas on a flipchart as they are offered. Keep your participation to a minimum, but ask questions to keep the discussion active and on track.
6. Always summarise, or ask a participant to summarise, what was discussed in the exercise. Give participants a copy of the answer sheet, if one is provided.
7. Reinforce the participants for their good work by (for example):
 - Praising them for the list they compiled
 - Commenting on their understanding of the exercise
 - Commenting on their creative or useful suggestions for using the skills on the job
 - Praising them for their ability to work together as a group

8. When coordinating a role-play

1. Before the role-play, refer to the appropriate notes in this guide to remind yourself of the purpose of the role-play, roles to be assigned, background information and major points to make in the group discussion afterwards.
2. As participants come to you for instructions before the role-play:
 - Assign roles. At first, select individuals who are outgoing rather than shy, perhaps by asking for volunteers.
 - Give role-play participants any props needed, for example, a baby doll or a Discharge Card.
 - Give role-play participants any background information needed. (There is usually some information for the ‘mother’ or ‘nurse’, which can be photocopied or clipped from this guide.)
 - Suggest that role-play participants speak loudly.
 - Allow preparation time for role-play participants.
3. When everyone is ready, arrange seating/placement of individuals involved. Have the players stand or sit apart from the rest of the group, where everyone can see them.

4. Begin by introducing the players in their roles and stating the purpose or situation. For example, you may need to describe the age of the child, assessment results and any treatment already given.
5. Interrupt if the players are having tremendous difficulty or have strayed from the purpose of the role-play.
6. When the role-play is finished, thank the players. Ensure that feedback offered by the rest of the group is supportive. First discuss things done well. Then discuss things that could be improved.
7. Try to get all group members involved in discussion after the role-play. In many cases, there are questions given in the module to help structure the discussion.
8. Ask participants to summarise what they learnt from the role-play.

CLINICAL INSTRUCTOR GUIDE



Government of Sudan

**Training Course on
Inpatient Management of
Severe Acute Malnutrition**

**Children 6–59 Months with SAM
and Medical Complications**

June 2011

This modified version of the 2002 World Health Organisation's *Training Course on Inpatient Management of Severe Acute Malnutrition (SAM)* is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim Manual Community-Based Management of Severe Acute Malnutrition (November 2009)*. The training course is made possible by the generous support of the American people through the support of the Office of U.S. Foreign Disaster Assistance, Bureau for Democracy, Conflict and Humanitarian Assistance, and the Office of Health, Infectious Diseases, and Nutrition, Bureau for Global Health, United States Agency for International Development (USAID), under terms of Cooperative Agreement No. AID-OAA-A-11-00014, through the FANTA-2 Bridge, managed by FHI 360. The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.

Illustrations for modules: Susan Kress

Contents

Acknowledgements	ii
Acronyms and Abbreviations	iv
1. Purpose of Clinical Sessions	1
2. Objectives of Clinical Sessions	2
3. The Role of the Clinical Instructor	4
4. Qualifications and Preparation of the Clinical Instructor	5
5. Before the Facilitator Training and Case Management Training Begin	6
6. Scheduling Clinical Sessions.....	9
7. General Procedures for Planning and Conducting Clinical Sessions.....	11
8. Specific Instructions for Each Day’s Clinical Session.....	14
Day 1: Tour of ward.....	14
Day 2: Clinical signs and anthropometric measurements.....	16
Day 3: Initial Management	20
Day 4: Flexible Half-Day, Optional Clinical Session.....	23
Day 5: Initial Management and Feeding.....	24
Day 6: Feeding.....	27
Day 7: Daily Care and Monitoring Quality Care.....	29
Additional Objectives – Observation of a Health and Nutrition Education Session, a Cooking Session and a Play Session	32
Discussion of health and nutrition education session for mothers.....	32
Discussion of cooking session	33
Discussion of play session	33
Annex A. Chart for Scheduling Clinical Sessions	34
Annex B. Equipment and Supplies for Inpatient Care	35
Annex C. Tally Sheet for Clinical Sessions.....	39

Acknowledgements

This field training course is the practical application of the 1999 World Health Organisation (WHO) publication *Management of severe malnutrition: a manual for physicians and other senior health workers*, and WHO is grateful to all those involved in the production of this fundamental training course. WHO would particularly like to thank ACT International, USA, and especially Ms P. Whitesell Shirey for having developed the manuscript of the Training Course, together with Ms F. Johnson, who also acted as the course co-ordinator during the field testing. WHO acknowledges with all gratitude the substantial technical contribution and advice of Professor A. Ashworth-Hill from the London School of Hygiene and Tropical Medicine, who has also acted as one of the course facilitators. Special thanks are extended to Dr S. Khanum (former Regional Adviser for Nutrition and Food Safety, WHO Regional Office for South-East Asia in New Delhi), Department of Nutrition for Health and Development, for her technical contribution, comments and advice throughout the development of the training modules and also for organising the field testing as a course director.

WHO also expresses its appreciation for helpful contributions from course facilitators during the field testing of the training modules, notably, Dr S. Aiyer, India; Dr T. Nu Shwe, Myanmar; Dr E. Poskitt, UK; Dr T. Ahmed, Dr S. Shakur and Dr K. Jamil, Bangladesh; and all the course participants from Bangladesh, Bhutan, Indonesia, Myanmar, and Nepal.

WHO expresses sincere gratitude to Professor J.C. Waterlow, UK, and to Professor A. Jackson, University of Southampton, UK, for their technical support and expertise during preparatory meetings held in London in November 1999 and September 2000.

Also acknowledged are contributions of WHO staff in the Department of Nutrition for Health and Development, Dr G.A. Clugston and Dr M. de Onis, and support from the Department of Child and Adolescent Health and Development.

WHO would like to thank the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) for conducting the field testing of the training modules.

The financial support of the governments of the United Kingdom of Great Britain and Northern Ireland (Department for International Development) and the Kingdom of The Netherlands toward the development and publication of this Training Course is also gratefully acknowledged.

This modified version of the training materials for the course on inpatient management of severe acute malnutrition (SAM) is the practical application of the 2009 Government of Sudan (GOS) Federal Ministry of Health (FMOH) *Interim National Guidelines for the Community-Based Management of Severe Acute Malnutrition (November 2009)*.

The GOS wants in particular to thank Professor Mabyou Mustafa, course director and team leader of the review of the training materials, who skilfully guided all reviewers, facilitators and trainees. The GOS also thanks Community-Based Management of Acute Malnutrition (CMAM) technical working group members Dr Ali Arabi and Dr Elamin Osman, who acted as reviewers and assisted the course director during the facilitator and case management training during which the training materials were field tested.

Also acknowledged are the valuable contributions of the FMOH National Nutrition Program, Ms Salwa Sorkatti, Director, and Ms Fatima Aziz, Assistant Director, for facilitating the overall review and field testing of the training materials, and of Ms Amira M. Almunier and Ms Ibtihalat M. Elidirisi for participating in the review. Special thanks are extended to Dr Sofia Mohamed, Dr Amal Abdel Bagi, Dr Badrelddin S. Ali, Ms Amira M. Almunier, Dr Karrar Makki, Dr Sumaia Mohamed Alasad, Dr Amani Hashim Algalal, Dr Fathia Mohamed AbdelMagid, Maha FadelAllah and Ms Wafaa Badawi for their participation as facilitators, clinical instructors and nutrition instructors in the training. Finally, thanks go to all the participants in the Case Management Training for their valuable comments during the field testing of the training materials. Thanks are extended to Gaffar Ibn Auf Children Hospital for facilitating and preparing the site for the clinical training sessions.

Special thanks are extended to UNICEF and the CMAM support team members from UNICEF, WHO, the World Food Programme and Ahfad University for Women for their valuable contributions in the review of the training materials.

The financial support from the United States Agency for International Development (USAID) Bureau for Global Health, Office of Health, Infectious Diseases, and Nutrition, and the USAID Bureau for Democracy, Conflict, and Humanitarian Assistance Office of U.S. Foreign Disaster Assistance, and the technical support from the FHI360/Food and Nutrition Technical Assistance II Project (FANTA-2), and its sponsored partners from Ghana, Niger and South Sudan, for the completion of the training materials are also gratefully acknowledged.

Acronyms and Abbreviations

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
AWG	average daily weight gain
BMI	body mass index
cm	centimetre(s)
CMAM	Community-Based Management of Acute Malnutrition
CMV	combined mineral and vitamin mix
dl	decilitre(s)
ENA	Essential Nutrition Actions
FMOH	Federal Ministry of Health
g	gram(s)
GOS	Government of Sudan
Hb	haemoglobin
HFA	height-for-age
HIV	human immunodeficiency virus
IGF	insulin growth factor
IM	intramuscular
IMNCI	Integrated Management of Neonatal and Childhood Illness
IU	international unit(s)
IV	intravenous
IYCF	infant and young child feeding
kcal	kilocalorie(s)
kg	kilogram(s)
L	litre(s)
LOS	length of stay
M&R	monitoring and reporting
MAM	moderate acute malnutrition
ml	millilitre(s)
mm	millimetre(s)
MUAC	mid-upper arm circumference
µg	microgram(s)
NG	nasogastric
NGT	nasogastric tube
OPD	outpatient department
ORS	oral rehydration solution
PCV	packed cell volume
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission of HIV
QI	quality improvement
ReSoMal	Rehydration Solution for Malnutrition
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SFP	supplementary feeding programme
TB	tuberculosis
UNSCN	United Nations Standing Committee on Nutrition
WFA	weight-for-age
WFH	weight-for-height
WFP	World Food Programme
WHO	World Health Organisation

1. Purpose of Clinical Sessions

The clinical session is an essential part of the *Training course on Inpatient Management of Severe Acute Malnutrition* training course. Clinical sessions are led by the clinical instructor in the severe acute malnutrition (SAM) ward each day of the course. The purpose of the clinical sessions is for participants to see and practise management of children with SAM, following procedures described in the Government of Sudan Interim Manual: Community-Based Management of Severe Acute Malnutrition, Version 1.0 (November 2009) (CMAM Manual)¹.

Participants learn about the procedures for management of SAM in children under 5 by reading information in training modules and seeing demonstrations on video. They then use the information to complete written and/or oral exercises. Finally, and most importantly, in clinical sessions participants see the procedures carried out and practise some procedures in Inpatient Care for the management of SAM with complications.

General Objectives. During clinical sessions, participants will:

- See and practise identifying clinical signs of SAM and medical complications in children
- Observe and practise procedures for management of SAM in children
- Practise handling children with SAM gently and using a supportive and friendly manner with mothers²
- 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 organised to give participants an opportunity to observe and practise skills in the order that they are being learnt in the modules. Each clinical session focuses on some new skills and reinforces the skills participants have learnt in previous modules. If any participant has difficulty with a particular skill, the clinical instructor gives him/her additional guidance. The purpose is to help every participant develop skills and confidence.

¹ Case management practices in the ward should be consistent with those summarized in the job aids and described in the CMAM Manual. If there are discrepancies between current practices of the health facility where the clinical sessions of the training course occur, the clinical instructor should be prepared to support the training site to implement the best practices of the Federal Ministry of Health (FMOH). Local adaptation of some procedures is reasonable; the clinical instructor or Course Director should be prepared to explain how the current practice is consistent (or not consistent) with the best practices of the FMOH and the reasons for it. If a health facility wants to upgrade its procedures to be consistent with the best practices of the FMOH, staff may require training, ward procedures may need to be changed and additional supplies may need to be obtained. The health facility may request technical assistance from the FMOH (and the World Health Organisation [WHO] or other partners) well in advance of a training course.

² The term ‘mother’ is used throughout the modules and guides. However, it is understood that the person who is responsible for the care of the child might not always be that child’s mother, but rather some other caregiver. However, for the sake of readability, ‘mother’ means ‘mother/caregiver’ throughout the modules and guides, ‘she’ means ‘she or he’ and ‘her’ means ‘her or his’.

2. Objectives of Clinical 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 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

- Observe the admissions area
- Observe the emergency treatment area
- Observe how the SAM ward or area is organised
- Observe the kitchen area
- Observe any special areas for play, health education, etc.

Day 2: Clinical Signs and Anthropometric Measurements

- Observe children with clinical signs of SAM
- Look for signs of SAM and medical complications
- Measure mid-upper arm circumference (MUAC)
- Measure weight and length/height
- Look up weight-for-height (WFH) z-scores
- Look up target weight for discharge
- Test appetite with RUTF
- Identify children with SAM, review admission criteria and discuss treatment in Inpatient Care and referral to Outpatient Care

Day 3: Initial Management

- Observe initial management of children with SAM
- Identify clinical signs of SAM and medical complications: hypoglycaemia, hypothermia, shock, dehydration, severe anaemia and corneal ulceration
- Practise using dextrostix
- Practise filling out an Inpatient Management Record during initial management
- Assist in conducting initial management, if feasible, such as:
 - Check for signs of shock: cold hands with slow capillary refill or weak or fast pulse
 - Take rectal temperature
 - Give bolus of glucose for hypoglycaemia
 - Warm child
 - Give first feed

Day 4: Flexible Half-Day, Optional Clinical Session

Any of the preceding activities may be repeated for extra practice. If case management in the hospital is good, participants may be assigned to ‘shadow’ and assist a health care provider 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 conducting initial management, if feasible, including:
 - Identify signs of possible dehydration in a child with SAM
 - Measure and give Rehydration Solution for Malnutrition (ReSoMal)
 - Monitor a child on ReSoMal
 - Determine antibiotics and dosages
- Practise testing the appetite with ready-to-use therapeutic food (RUTF): appetite test, for a child who shows appetite and is clinically well and alert
- Practise conducting the supplemental suckling technique if possible
- Observe nurses (and nutritionists) 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 RUTF and/or F-100; practise testing the appetite with RUTF: appetite test (continued)
- Prepare F-75, F-100 and ReSoMal, and learn the contents of RUTF
- Practise measuring, giving and recording feeds (continued)

Day 7: Daily Care and Monitoring Quality Care

- Keep Inpatient Management Records on children observed and cared for
- Participate in daily care tasks, as feasible:
 - Measure pulse rate, respiratory rate and temperature
 - Administer eye drops, antibiotics, other drugs and supplements; change eye bandages; etc.
 - Weigh child and record weight (on Daily Care page and on weight chart of Inpatient Management Record)
 - Look up target weight for discharge and mark on weight chart
 - Observe and assist with bathing children
- Assist with feeding (continued practice)
- Discuss progress to referral and/or discharge and decide when the child is ready; practise referral to Outpatient Care when stabilised and discharge when fully recovered
- Monitor quality of care using checklist
- Practise filling out tally and reporting sheets, and assess performance

Additional Objectives

- Observe a health and nutrition education session (and a cooking session) with mothers
- Observe a play session

3. The Role of the Clinical Instructor

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

Teaching a small number of participants in the ward at any given time allows each person to have hands-on practice. The clinical instructor is able to watch carefully and give feedback to help each participant improve.

Experience has shown that this clinical teaching can best be done by someone who is present in the ward throughout the day, rather than by different instructors coming in for an hour or two. The clinical instructor becomes familiar with the children and staff procedures and is comfortable moving about the ward. As the clinical instructor repeats the same teaching for each group during the day, he/she usually becomes more effective at imparting his/her knowledge. The mothers and staff are also more comfortable seeing the same instructor with different groups of participants³.

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 SAM, the clinical instructor might locate several children in the ward who clearly demonstrate the signs, and then show the signs on one or two children and ask participants to point out signs on the other children. On a day when participants are learning about the stabilisation phase, the clinical instructor might select several children in the ward who are in that phase and have the participants look over their 24-Hour Food Intake Charts, assess progress and plan feeding for the next day. The clinical instructor might 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 at planning how multiple groups of participants can accomplish their objectives. If the clinical instructor finds that the schedule planned for clinical sessions will not work on a given day, he/she must plan an alternative and adjust the schedule accordingly.

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

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; that is the responsibility of the clinical instructor.

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 with SAM with medical complications. If possible, he/she should have a current position in Inpatient Care of the health facility where the training is being conducted. (If the clinical instructor is not on the staff of the health 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 very **familiar with the Inpatient Care job aids and the CMAM Manual** and have experience using it. It is best if he/she has previously **participated in the Training course on Inpatient Management of Severe Acute Malnutrition** as a participant or facilitator. He/she should at least be familiar with and use the practices summarized in the job aids and described in the CMAM Manual.
4. He/she should be **clinically confident** to be able to sort through a ward of children quickly, identify clinical signs that participants need to observe and determine the progress of different children. He/she should understand the daily procedures in Inpatient Care and quickly see where participants could assist with care. He/she should understand each child's clinical diagnosis and prognosis so as to not compromise the care of critically ill children. He/she should be comfortable handling children with SAM and medical complications and **convey a gentle, positive, hands-on approach**.
5. The clinical instructor must have **good organisational skills**. To accomplish all of the tasks in each clinical session the clinical instructor must be efficient. The individual must be able to stay on the subject, avoiding any extraneous instruction or discussion. He/she must be able to keep a view of the ward and all the participants, and keep all participants involved and learning productively. Teaching three groups of participants requires 4½–6 hours, and these are very active periods. He/she must be energetic.
6. The clinical instructor must be **outgoing and able to communicate** with ward staff, participants and mothers. She should be a good role model in talking with mothers. A translator might be needed.
7. If possible, in preparation for this role, the individual should work as an assistant to a clinical instructor during another course to see how to select cases, organise the clinical sessions and interact with participants. Or another skilled clinical instructor could join him/her during the first few days of the Facilitator Training or the Case Management Training.
8. The clinical instructor must be available 1–2 days prior to Facilitator Training, during all of Facilitator Training and during the entire Case Management Training. He/she must be willing and motivated to get up early each morning to review cases in the SAM ward and prepare for the day's clinical sessions.

5. Before the Facilitator Training and Case Management Training Begin

1. With the Course Director, meet with the hospital director and the person responsible for Inpatient Care in the SAM ward (the ward head). Explain to the ward head how clinical sessions work. Describe what the clinical instructor and the participants would like to do. Ask permission to conduct sessions in the ward.

Meet with staff in the ward (or in each ward) to inform them about the training and to ask for their help. Make sure your arrangements include the senior responsible nurse, not just the physician in charge.

If necessary, ask the SAM ward head for a clinical assistant, preferably someone who works on the ward full-time. Ask the ward head to request that the clinical assistant come at the time of the early morning preparations (usually 6:00 or 7:00, 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, how bathing and weighing are conducted, how feeding is done, the schedule of nursing rounds, the teaching sessions for mothers, etc. Find out times patients are available or not available.
3. Meet with the Course Director and the SAM ward head to set the schedule for clinical sessions, so each group will have a clinical session each day. Plan for three groups of up to six participants each. A 1- to 2-hour session is required for each group each day. (If there are more participants attending the course, you will need to schedule accordingly.) See Section 6, 'Scheduling Clinical Sessions', for more guidance on scheduling. When the schedule is written, make sure 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 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 instructors and assistants should have a copy of the following:
 - Objectives for Clinical Sessions (listed in Module 1: Introduction)
 - Schedule of Clinical Sessions
 - **Reference**
 - CMAM Manual
 - Operational Guide for Inpatient Care
 - **Set of Job Aids**
 - Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5
 - Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care
 - Action Protocols in Inpatient Care
 - Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care

- Ten Steps for Management of SAM in Children 6–59 Months in Inpatient Care
- Pathophysiology Basis for the Treatment of Severe Acute Malnutrition
- Hypernatraemic Dehydration in Children under 5 in Inpatient Care
- Weight-for-Height/Length Look-Up Tables
- F-75 Look-Up Tables
- F-100 Look-Up Tables
- F-100-Diluted Look-Up Tables
- Use of RUTF in Children under 5 in Inpatient Care and RUTF Appetite Test
- Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months
- Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Forms and checklists

- Inpatient Management Record
- Daily Feeds Chart
- Referral Form
- Site Tally Sheet
- Monthly Site Report for CMAM
- Supervisor’s Checklist

As clinical instructor, you will need a supply of:

- Inpatient Management Records (100 copies of the Initial Management page plus 60 complete Inpatient Management Records for a course with 15–20 participants)
- 24-Hour Food Intake Charts (100 copies for a course with 15–20 participants)
- Pens and pencils
- Thermometers
- A few watches (participants might have their own)
- MUAC tapes
- Weight scales and length/height board, 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)
- 6–8 clipboards and string or tape to fasten clipboards to foot or head of bed (optional)

And, for day 3:

- Dextrostix, blood samples, gloves for every participant

To ensure good hand-washing, participants need access to:

- Running water
- Paper or cloth towels
- Soap
- Lab coats, aprons or towels to protect clothes when handling children (*Note:* These should not be shared by participants; each should have his/her own)

6. Check that all clinical supplies for care of children with SAM with medical complications in the SAM ward are available (e.g., equipment/supplies for the ward, pharmacy and kitchen; medicines). Supplement supplies of the ward if necessary. You should ensure that participants will observe management of children according to the protocols summarized

in the job aids and described in the CMAM Manual. See **Annex B** for a complete list of 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 teach a session during the Facilitator Training. This will give you practice and will familiarise the facilitators with how clinical sessions will work.

Select one session to practise during the Facilitator Training, just as written. Alternatively, you could select and practise some key activities from different sessions, such as:

- Identifying clinical signs of SAM with medical complications (as done on day 3)
- Observing and helping with initial management (as done on days 3 and 5)
- Practising measuring and giving feeds (as done on days 5 and 6).

9. Brief any staff who 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 on [page 15](#), *day 1*, ‘*Explanation to participants of how clinical sessions will work*’.) 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.

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 obtain experience and work out any problems before the actual course begins.

11. Before the course begins, study the Tally Sheets for Clinical Sessions in **Annex C** and plan how you will use them. Make a copy to write on.

6. Scheduling Clinical Sessions

It can be a challenge to schedule clinical sessions in a way that allows all groups to accomplish each day's 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, Introduction**.

Day 2 objectives (Clinical Signs and Anthropometric Measurements) 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, Principles of Care**, before this session.

Day 3 objectives (Initial Management) can be achieved when the staff is 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 a clinical session. 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 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. Practise the RUTF appetite test and the supplemental suckling technique. Each session should include a scheduled feeding time.

Day 7 objectives (Daily Care and Monitoring Quality 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 those times. It is possible that some groups will not be able to practise all of the daily care tasks. Discuss quality of care and filling in tally and reporting sheets and analyse monthly reports or the previous months.

Additional objectives

- Observe a health and nutrition education session (and a cooking session) with mothers
- Observe a play session

These health and nutrition education, cooking 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.

To meet all objectives you might need to be creative in your scheduling. A clinical session might need to be scheduled quite early or late on some days for each group to participate in a feeding time. You might use a grid similar to the one below to plan clinical sessions.

The times shown are just examples. A blank schedule is in **Annex A**. Take special care to plan and adapt for each group, taking into account things like tea and lunch breaks, and be sure to allow time for movement to and from and around the ward.

Sample Clinical Session Schedule

Clinical Session	Group A	Group B	Group C
Day 1 Tour of Ward 1 hour	11:00 – 12:00	13:00 – 14:00	14:15 – 15:15
Day 2 Clinical Signs and Anthropometric Measurements 1.5 hours	9:00 – 10:30	10:45 – 12:15	13:30 – 15:00
Day 3 Initial Management 1.5 hours	13:30 – 15:00	9:00 – 10:30	10:45 – 12:15
Day 4 Flexible half-day, optional clinical session	All groups will observe play session at 10:00		
Day 5 Initial Management and Feeding 2 hours	10:45 – 12:45 (11:00 feed)	13:30 – 15:30 (15:00 feed)	8:30 – 10:30 (9:00 feed)
Day 6 Feeding 1.5 hours	8:30 – 10:00 (9:00 feed)	10:15 – 11:45 (11:00 feed)	12:45 – 14:15 (13:00 feed)
Day 7 Daily Care and Monitoring Quality Care 2 hours	13:00 – 15:00	9:00 – 11:00	10:45 – 12:45
Observe health and nutrition education session (and cooking session) for mothers	Day 7 at 14:00	Day 5 at 14:00	Day 6 at 14:00
Observe play session	Day 4 at 10:00	Day 4 at 10:00	Day 4 at 10:00

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 practise some tasks (such as feeding children) by assisting the staff doing patient care on their regular schedule. Some tasks will need to be organised specially, by assigning participants to work with selected children that have certain characteristics.

If the schedule requires adjustment to accomplish the session objectives, inform the Course Director and/or the group facilitators. If any special supplies are needed, be sure that they will be available. Prepare or make copies of any forms needed, such as Inpatient Management Record pages or 24-Hour Food Intake Charts.

2. Each morning, review the children in the ward and select appropriate children to be observed by participants during the day's sessions. This must be done in the morning because the clinical condition of hospitalised children can change overnight.

Identify children appropriate for the objectives for that day. For example, on some days you will need children that 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 children with medical complications. Because some signs may be rarely seen or understood in a child with SAM, show them to participants whenever there is an opportunity. These signs may include:

- severe dermatosis (+++)
- severe oedema (+++)
- signs of dehydration, especially a skin pinch that goes back slowly
- signs of shock (cold hands with slow capillary refill > 3 seconds, weak or fast pulse)
- corneal clouding, corneal ulceration

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 coloured card at the foot of the bed. This will help you locate these children easily. Explain the purpose of the visit of the participants and the training to the mothers of the children that are identified as learning cases.

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 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 day. Demonstrate any clinical procedure that they might not have 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 needed forms or supplies.
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, he 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 all 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, etc.

Keep these discussions brief and avoid making participants feel uncomfortable or intimidated. When you ask a participant about what he has 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. Emphasise that the participants are all here to learn.

11. At the end of the session, gather all the participants together and summarise 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 (check) on the Tally Sheet for Clinical Sessions (**Annex C**) 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 that 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 sessions. Review any important points about the schedule, the objectives, help that you need, etc. Remind facilitators of anything that participants should bring to the sessions, such as their package of job aids.

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, the participants' objectives, the 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

To Prepare Review these guidelines for day 1.

Prepare to take each group for a tour of the SAM ward and all areas where children with SAM are seen and treated. Identify areas that you will show and prepare your comments. If possible, obtain data on the number of children with SAM seen each month or each year, and how long these children typically stay in the hospital.

Plan to tour the SAM ward; the emergency treatment area; the admissions area; the kitchen area; and any special areas used for play, health education, etc.

If possible, find one child on the ward who has made a good recovery (a 'success story') and prepare to describe the child's condition on admission and how he/she has improved, emphasising the successes.

Participant Objectives

- Observe the admissions area
- Observe the emergency treatment area
- Observe how the SAM ward or area is organised
- Observe the kitchen area
- Observe any special areas for play, health education, etc.

Instructor Procedures

1. Introduce yourself.
2. Explain to participants how clinical sessions will generally work. See 'Explanation to participants on how clinical sessions will work' below. Explain that today the group will not work with patients but will tour the ward and other areas where children with SAM are seen or treated.
3. Explain hygiene procedures to be followed. Participants should wash hands with soap before and after each session and between patients. Explain where hand-washing facilities are located. (Even though participants will not be asked to handle patients today, they should wash anyway in case they touch any children.)
4. Take participants to the admissions area and explain how children are admitted for SAM to Inpatient Care or referred to Outpatient Care.
5. Visit the emergency treatment area and explain what treatments are given here.

6. Take participants for a tour of the SAM ward, pointing out areas that participants will learn about during the course: beds, areas for weighing and bathing, play area, education area, etc.
7. If possible, while touring the SAM ward, show a ‘success story’, a child who was admitted in serious condition but is now gaining weight, starting to become cheerful and about to be ready for referral to Outpatient Care.
8. Visit the kitchen or area where food is prepared. Point out food scales, ingredients used, etc.
9. Discuss the food for the mother.

At end of the session Summarise the session with participants. Answer any questions that participants might have.

Explanation to participants on 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 the management of SAM with medical complications. Inpatient Care (the SAM ward) may not be like the setting where you usually work. However, seeing and working in the SAM ward will help you understand the procedures and what is needed to carry them out. Then you will have ideas on how to put the recommended procedures into practice at your hospital.

You will learn from both what you *see* and what you *do* in the clinical sessions. You will observe while the staff performs 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 or intravenous (IV) fluids. 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 tasks and patients to you, 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/her mother should always be gentle and patient. Children with SAM 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 and/or the ward staff.

Day 2: Clinical signs and anthropometric measurements

To Prepare Review Section 7, General Procedures for Planning and Conducting Clinical Sessions ([pages 11–13](#)), and these guidelines for day 2.

Arrange for participants to weigh and measure children. Ensure that scales are working and measuring boards are set up correctly.

Select one or two children with a variety of clinical signs to show to participants. Try to find clear examples of signs. See ‘*Clinical signs to demonstrate on day 2*’ below ([page 17](#)) for a list of the signs to show today.

Look for children in the admissions area and/or SAM ward who could be assessed for clinical signs of SAM; who could have his/her weight, MUAC and length/height measured; and who could be checked for the presence of bilateral pitting oedema. For each group, you will need 1–2 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 that do not have SAM with medical complications.

Ask facilitators to have their participants bring their job aids, specifically the WFH look-up table and the discharge weight look-up table, and a pen or pencil to the clinical session.

Participant Objectives

- Observe children with clinical signs of SAM
- Look for signs of SAM and medical complications
- Measure MUAC
- Measure weight and length/height
- Look up WFH z-scores
- Look up target weight for discharge
- Test the appetite with RUTF: appetite test
- Identify children with SAM, review admission criteria and discuss treatment in Inpatient Care or Outpatient Care

Instructor Procedures

1. Review the objectives for today’s clinical session.
2. Show one or two children with various clinical signs, which may include wasting, oedema, dermatosis, eye signs. See ‘*Clinical signs to demonstrate on day 2*’ below. Point out these signs to participants.
3. Using these same children (unless they are too sick), demonstrate how to measure MUAC, weight and height/length. Follow guidance on [pages 10–17](#) of **Module 2, Principles of Care**. Demonstrate measuring both standing height and recumbent length.
4. Ask participants to look up the WFH z-score of these children.
5. Practise the RUTF appetite test for children that are stabilised and clinically well and alert
6. Determine if they meet criteria for admission (given on [page 21](#) of **Module 2, Principles of Care**).
7. Assign each participant to assess one or two children in the admissions area and/or ward. Include some children that do not have SAM. Ask participants to assess each child for clinical signs of SAM, and then to weigh and measure the child’s length/height and MUAC. Ask them to then determine if the child has SAM, appetite and/or medical complications and should be admitted.

8. Watch as participants examine each child for clinical signs, such as wasting, oedema and dermatosis. Ask the facilitators to assist participants as they weigh and measure children since a partner is needed for these tasks.
9. When a participant has finished assessing a child, ask the participant what he/she has found. Look at the child again with him/her, agreeing with the findings or asking the participant to look again if he/she missed a sign.
10. Toward the end of the session, conduct rounds. See [page 18](#), 'Individual practice identifying clinical signs, followed by rounds to give feedback'. 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. The participant should point out the clinical signs; state the child's MUAC, weight, height and WFH z-score; discuss whether the child should be admitted or referred to Outpatient Care; and state what the target weight for discharge at the end of the SAM treatment would be. Ask the participant questions as needed to draw out a complete explanation.

At end of the session Summarise the session with participants. Answer any questions that participants might have.

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 on the signs taught in the course and become skilled at recognising 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.

Severe wasting	Based on MUAC and WFH
Bilateral Pitting Oedema	+ Mild: Both feet/ankles ++ Moderate: Both feet, plus lower legs, hands or lower arms +++ Severe: Generalised including both feet, legs, hands, arms and face
Dermatosis	+ Mild: Discolouration or a few rough patches of skin ++ Moderate: Multiple patches on arms and/or legs +++ Severe: Flaking skin, raw skin, fissures
Appetite	RUTF appetite test
Eye signs	Pus and inflammation (redness) Bitot's spots Corneal clouding Corneal ulceration
Other medical complications	High fever Lethargy Lower respiratory tract infection Severe anaemia

All of the above signs are explained in **Module 2, Principles of Care**, and photographs of these signs are provided in the *Photographs* booklet.

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 recognising the abnormal signs.

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

The technique of ‘rounds’ will be used frequently in clinical 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 (wasting, oedema, dermatosis and eye signs), and also to weigh and measure the patients and conduct the RUTF appetite test to determine whether they should be admitted in Inpatient Care or referred to Outpatient Care. Assign each participant to a different patient (or, if necessary, pair participants up). Select patients with signs that should be learnt 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 that the distinction is clear.

Ask participants to go to the patient, check that patient and record findings. The participants should all check their patients and then signal to you when they are 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 and the WFH z-score.
- 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 should be admitted. If necessary, ask participants to write their individual decisions on slips of paper and hand or show them to you, so that you are sure they are giving their own decisions, not influenced by others or by 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 within 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 do not identify a sign correctly, demonstrate or let participants try again. Find out why they decide differently: where they were looking, the definition they are 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 do'. Give encouragement and thank the participant who presented the case.

These procedures should be adapted for rounds on other days to be suitable for the tasks being practised.

Day 3: Initial Management

- To Prepare**
- 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 Inpatient Management Record (2–3 copies per participant).
 - In the morning and throughout the day, look for newly admitted patients with SAM.
 - Brief the staff who do initial management of SAM in 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 package of job aids and a pen or pencil to the session.
- Participant Objectives**
- Observe initial management of children with SAM.
 - Identify clinical signs of SAM and medical complications: hypoglycaemia, hypothermia, shock, dehydration, severe anaemia, corneal ulceration.
 - Practise using dextrostix.
 - Practise filling out an Inpatient Management Record during initial management.
 - Assist in conducting initial management, if feasible, such as:
 - Take rectal temperature
 - Give bolus of glucose for hypoglycaemia
 - Warm child
 - Give first feed
- Instructor Procedures**
1. Review with the participants the objectives of this session.
 2. As children with SAM 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 an Inpatient Management Record 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 (e.g., a child with dermatosis, oedema of both feet, corneal ulceration).
 5. Teach the additional clinical signs listed (see ‘Clinical signs to teach on day 3’ 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. Assign participants to patients if it is feasible to do so without interfering with care. (See ‘Assigning cases for initial management’ below.) As feasible, with supervision, participants should practise the following:
 - Checking for signs of shock: lethargic/unconscious, plus cold hands, plus either slow capillary refill or weak or fast pulse
 - Giving bolus of glucose
 - Taking rectal temperature
 - Warming a child
 - Giving 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 information on the patient on the Initial Management page of an Inpatient Management Record. Even if the child is not a new patient, participants should assess the child as though he/she is 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/height from the hospital record.)
9. After all participants have finished, conduct rounds of the children assessed.

At end of the session Summarise the session with participants. Answer any questions that participants might have.

Clinical signs to teach on day 3

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

- Hypothermia: axillary temperature < 35° C or rectal temperature < 35.5° C
- Hypoglycaemia: blood glucose < 3 mmol/L
- Shock: lethargic/unconscious, plus cold hands, plus either slow capillary refill (> 3 seconds) or weak or fast pulse
- Signs of dehydration (recent history [within the last 24 hours] of significant fluid loss and recent change in the child’s appearance):
 - Sunken eyes
 - Skin pinch goes back slowly
 - Restless/irritable
 - Lethargic
 - Thirsty
 - Dry mouth/tongue
 - No tears

Also review the clinical signs from day 2 (severe wasting, oedema, dermatosis, eye signs, and appetite).

Assigning cases for initial management

There may not be enough 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 member is doing and what results are found. Participants should record on the Inpatient Management Record 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, another to give the initial bolus of glucose (if needed), etc.
- Two or three participants may work together to examine a patient. Each participant records on a separate Inpatient Management Record.
- 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, check for signs of shock, ask about diarrhoea, check and ask for signs of dehydration, etc.). 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 on the Inpatient Management Record.

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 IV fluids. If a participant informs you about 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 Session

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 case management in the hospital is very good, participants may be assigned to ‘shadow’ and assist a health care provider in the hospital for part of the day. This day may also be a good opportunity to achieve the additional objectives of observing a health and nutrition education session and cooking session with mothers or observing a play session.

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 SAM patients who have diarrhoea. Select new or recent admissions to be seen by participants.

Obtain a supply of the Initial Management page of the Inpatient Management Record (2 per participant) and 24-Hour Food Intake Charts (2 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 the complete set of job aids and a pencil or pen.

Participant Objectives

- Observe and assist in conducting initial management, if feasible, including:
 - Identify signs of possible dehydration in a child with SAM
 - Measure and give ReSoMal
 - Monitor a child on ReSoMal
 - Determine antibiotics and dosages
- Practise conducting the RUTF appetite test for a child who shows appetite and is clinically well and alert.
- Observe nurses (and nutritionists) measuring and giving feeds.
- Practise measuring, giving and recording feeds.

Instructor Procedures

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. See [page 22](#), 'Assigning cases for initial management'. Supervise closely. Have participants complete an Initial Management page of the Inpatient Management Record on each case observed or managed. If the following activities can be done without interfering with care, ask different participants to practise the following:
 - Check for signs of shock: cold hands with slow capillary refill or weak or fast pulse
 - Give bolus of glucose
 - Take rectal temperature
 - Warm a child
 - Give first feed

- For patients with diarrhoea, also ask participants to practise:
- Looking for signs of possible dehydration
 - Measuring an appropriate amount of ReSoMal for child
 - Giving ReSoMal orally or through nasogastric tube (NGT)
 - Monitoring child on ReSoMal and recording results
3. Ask participants to determine the appropriate antibiotics and dosages for the patient and record them on the Inpatient Management Record. They should refer to the Routine Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care Job Aid as needed. Discuss their answers.
 4. Find a mother with a child on whom the appetite can be tested with RUTF. Follow the instructions as on the RUTF Appetite Test Job Aid. Observe how the child gets accustomed to eating small bits of semi-solid food, and whether the child will pass or fail the test.
 5. When participants are ready, conduct rounds.

Feeding

6. Move to the kitchen area and then the ward so that participants can observe nurses (or nutritionists) measuring and giving feeds to children at all stages of treatment.
7. Explain (or have the nurse or nutritionist show and explain) how the correct amount of feed is measured for each child in the stabilisation and transition phases.
8. When it is feeding time, find a mother or nurse (or nutritionist) who is feeding a child correctly with a cup and saucer, and have participants observe how the child is held, how the cup and saucer is held and how long to pause between sips. Find a child who is being fed by NGT and show how the feed slowly drips in. (It should not be plunged.) Find a child in the transition phase who is feeding with RUTF and/or on mixed feeding of RUTF and F-100.
9. 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 'Holding and feeding children' below. Be sure that participants correctly measure and record leftovers.
10. Discuss and if possible show the feeding of a breastfed infant with SAM with the supplementary suckling technique.

At end of the session Summarise the session with participants. Answer any questions that participants might have.

Holding and feeding children

Participants can help with nasogastric (NG) feeding while a child is lying down or held by the mother. However, to feed a child properly with a cup and saucer, the participant must hold the child. Be aware that children may be distressed if taken from their 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 session, between children and after the clinical session.

Day 6: Feeding

To Prepare On day 6, you will need correctly completed 24-Hour Food Intake Charts for a number of children for one or more days. For a day or two before this session, ensure that 24-Hour Food Intake Charts are correctly kept on children in the SAM ward. You may need to help or provide some instruction. If staff members 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.

Brief staff in the SAM 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: feeding with an NGT, ready to decrease frequency of feeds of F-75, not ready to decrease frequency, ready for RUTF appetite test, ready for RUTF and/or F-100. Get a copy of yesterday’s 24-Hour Food Intake Charts, or fill in a 24-Hour Food Intake Chart for each. Make copies of them to show participants (3–6 copies).

Obtain a supply of blank 24-Hour Food Intake Charts (3–4 per participant).

Participant Objectives

- Review 24-Hour Food Intake Charts and plan feeds for the next day.
- Determine if child is ready for RUTF and/or F-100; practise testing the appetite with RUTF: appetite test (continued).
- Prepare F-75, F-100 and ReSoMal, and learn the contents of RUTF.
- Practise measuring, giving and recording feeds (continued).

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 and preparations of the feeds. Participants will also continue to practise feeding tasks.
2. In the kitchen, with the support of the nutrition assistant(s), demonstrate the preparation of F-75, F-100 and ReSoMal using the commercial packages and/or the most appropriately adapted recipe to your context. Discuss the milk preparation procedure for a 24-hour schedule, use and storage and the local policy for discarding leftover milk.
3. 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 he/she has been in hospital, admission weight, clinical signs on admission, etc.). Distribute copies of the previous 1–2 days of the child’s 24-Hour Food Intake Charts. (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 he/she fed yesterday? How often was he/she 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 RUTF and/or F-100), how many feeds, how much and by what means

(NGT or cup). Ask the participants to use their job aids and then write down their answers at the top of a blank 24-Hour Food Intake Chart. Discuss what participants decided and why.

Go to the bed of the next child selected and repeat this process.

4. At relevant points in the discussions, review concepts from **Module 4, Feeding** by asking such questions 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 NGT feeding is needed?’ ‘When is a child ready for transition?’ ‘What happens each day during transition?’
5. 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). See [pages 25–26](#), ‘Holding and feeding children’. 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.

6. If on the previous day there was no opportunity to test the appetite with RUTF, find a mother with a child for who the appetite can be tested. . Follow the instructions in the RUTF Appetite Test Job Aid. Observe how the child gets accustomed to eating small bits of semi-solid food, and whether the child will pass or fail the test.

At the end of the session Summarise the session with participants. Answer any questions that participants might have.

Day 7: Daily Care and Monitoring Quality Care

To Prepare On day 7, you will need detailed information on a child who has been in hospital for at least 3 days. Preferably, staff are routinely keeping Inpatient Management Records 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, etc. for several children over the next few days. Select children that are likely to still be in hospital on day 7 of the course. You may then transcribe this information onto an Inpatient Management Record. 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.

Select children for whom participants will help carry out daily care tasks during the day. Do not select children that 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 hospital for at least 3 days and has complete records of care, daily weights, etc.

If you think that participants will have time to complete a monitoring checklist during the session, brief the staff. 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 copy of **Module 6, Monitoring, Problem Solving and Reporting** to the session.

Obtain a supply of Inpatient Management Records (all pages) and 24-Hour Food Intake Charts (three sets or more per participant).

- Participant Objectives**
- Keep Inpatient Management Records on children observed and cared for. (*The focus in this session will be on the Daily Care, Monitoring Record and Weight Chart pages.*)
 - Participate in daily care tasks, as feasible:
 - Measure pulse rate, respiratory rate and temperature
 - Administer eye drops, antibiotics, other drugs and supplements; change eye bandages; etc.
 - Weigh child and record weight (on Daily Care page and on weight chart of Inpatient Management Record)
 - Observe and assist with bathing children
 - Assist with feeding (continued practice).
 - Discuss progress to referral and/or discharge and decide when the child is ready; practise referral to Outpatient Care when stabilised and discharge when fully recovered.
 - Monitor quality of care using checklist.
 - Practise filling out tally and reporting sheets, and assess performance.
- Instructor Procedures**
1. Review the objectives for the clinical session.
 2. Go to the bedside of a child for whom you have fairly complete information for at least 3 days. Give each participant an Inpatient Management Record. Present information on the child and demonstrate monitoring the child while participants record on the Inpatient

Management Record. For details, see [page 31](#), ‘Recording on Daily Care, Weight Chart and Monitoring Record pages’.

3. Discuss whether participants see any progress or problems with the child’s care. Be sure that they look at the child (appearance, attitude) as well as information that they have recorded. Discuss the child’s feeding plan and any changes that may be needed in his or her care. Discuss if a child in transition is ready for referral to Outpatient Care or remains in Inpatient Care as an exceptional case.
4. 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. Discuss if the RUTF appetite test should have been performed or not.
5. 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 an Inpatient Management Record and a 24-Hour Food Intake Chart for each child.

Nurses (and nutritionists) will be caring for these children too. Participants should observe the nurses (and nutritionists) and assist with care as much as possible. They should complete (or add to) an Inpatient Management Record on each child. Watch to see that each participant is assisting with care and completing Inpatient Management Records correctly. Step in to give guidance and feedback whenever needed.

6. Each participant should take respiration and pulse rates and temperatures for his 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.
7. If any child is identified with danger signs (increases in pulse and respiratory rate, increase/decrease in temperature), show the entire group. Ensure that the physician responsible for the child is alerted.
8. If children are being bathed, participants should observe and possibly assist. Emphasise that bathing is done gently and that the child is quickly dried, re-covered and warmed.
9. If practical, attach the Inpatient Management Records completed by the first group to the beds of the children. The later groups can then continue with the same Inpatient Management Record for each child. *(This may not be practical if the forms are illegible. If not practical, later groups may start with new Inpatient Management Records.)*
10. Discuss children that are approaching or are ready for referral and/or discharge and what steps should be considered for referral and/or discharge and what messages should be given to the mother.
11. Have participants monitor the quality care using checklists from **Module 6, Monitoring, Problem Solving and Reporting**. 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.

12. Have participants practise filling out a tally and reporting sheet. If this is difficult to do during the clinical session, ask the participants to assess performance based on reviewing a tally sheet and monthly report from a previous month. Participants will discuss the results of performance when they return to the classroom.

At end of the session Summarise 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.

Recording on Daily Care, Weight Chart and Monitoring Record pages

Participants do not need to complete the entire Initial Management page, but you should record the child's MUAC reading, length 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, medical complication, the type of feed given, the number of feeds, etc. Participants may record their own initials to show when antibiotics and other medications were given. (*You do not have to start with day 1; if you have information for days 11–13, 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 is 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 respirations. If the child remains calm, have a participant try and see if he/she obtains the same rates. Ask another participant to take the child's rectal temperature. Have all participants record these on the Monitoring Record of the Inpatient Management Record. Ask participants what danger signs they should look for related to pulse, respirations and temperature. See the Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care Job Aid.

Additional Objectives – Observation of a Health and Nutrition Education Session, a Cooking Session and a Play Session

To Prepare	<p>Check the schedule to determine when each group will observe the health and nutrition education, cooking and play sessions. You will bring the group to the site of the sessions and provide an introduction to them. You or the small group's facilitator could lead discussions of the sessions afterward.</p> <p>If the small group facilitators will lead the discussions afterward, give copies of the discussion questions below.</p> <p>Brief the staff that participants will observe the health and nutrition education, cooking and play sessions, and provide the schedule for this.</p> <p>If it is not possible to observe these sessions organised for the SAM ward, similar sessions are recorded in the video provided in the training materials.</p>
Participant Objectives	<ul style="list-style-type: none">• Observe a health and nutrition education session (and a cooking session) with mothers.• Observe a play session.
Instructor Procedures	<ol style="list-style-type: none">1. Review with the participants the objectives for the sessions. Ask them to observe closely and make notes on what is done well and any ideas for improvement.2. Watch the education, cooking and play sessions with participants, if possible.3. After the session, lead a discussion of what was accomplished in the session and how. (See 'Discussion of health and nutrition education session for mothers', 'Discussion of cooking session' and 'Discussion of play session' below.)
At end of the session	<p>Summarise the sessions with participants. Answer any questions that participants might have.</p>

Discussion of health and nutrition education session for mothers

Below are some sample questions to discuss with participants:

1. What were the main points being taught?
2. What teaching methods were used?
3. How did they give demonstrations/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 learnt and will remember what was taught?
10. Describe the manner/attitude of the staff toward the mothers.
11. What was done well in this teaching session?
12. What could be improved?

Discussion of cooking session

If the cooking session is done, add questions to discuss with participants as appropriate.

Below are some sample questions:

1. What were the main points being taught?
2. What teaching methods were used?
3. Did the session hold the mothers' attention?
4. Were mothers asked to contribute ideas?
5. What ingredients were used for cooking, and were they appropriate to the mothers' household context and budget?
6. Was the cooking method used appropriate to the mothers' household context?
7. Were there opportunities for mothers to practise?
8. Do you think mothers learnt new things and will remember what was taught?
9. Describe the manner/attitude of the staff toward the mothers.
10. What was done well in this teaching session?
11. What could be improved?

Discussion of play session

Below are some sample questions to discuss with participants:

1. What were the main purposes of the session?
2. What activities were carried out?
3. What materials/toys were used?
4. Were they appropriate for age/development of children?
5. Could they be made in homes?
6. Describe the manner of the staff toward the children.
7. Describe the manner of the staff toward 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 A. Chart for Scheduling Clinical Sessions

Clinical Session	Group A	Group B	Group C
Day 1 Tour of Ward 1 hour			
Day 2 Clinical Signs and Anthropometric Measurements 1.5 hours			
Day 3 Initial Management 1.5 hours			
Day 4 Flexible half-day, optional clinical session	All groups will observe play session at 10:00		
Day 5 Initial Management and Feeding 2 hours			
Day 6 Feeding 1.5 hours			
Day 7 Daily Care and Monitoring Quality Care 2 hours			
Observe health and nutrition education session and cooking session for mothers			
Observe play session			

Annex B. Equipment and Supplies for Inpatient Care

Ward Equipment/Supplies

- Running water
- Thermometers (preferably low-reading)
- Child weighing scales (and item of known weight for checking scales)
- Infant weighing scales with 10 g precision (and item of known weight for checking scales)
- MUAC tapes
- Height board for measuring height and length (and pole of known length for checking accuracy)
- Adult beds with mattress
- Bed sheets
- Insecticide treated bednets
- Blankets or wraps for warming children
- Incandescent lamp or heater
- Wash basin for bathing children
- Potties
- Safe, homemade toys
- Clock
- Calculator

Pharmacy Equipment/Supplies

- Oral rehydration solution (ORS) for use in making Rehydration Solution for Malnutrition (ReSoMal) (or commercial ReSoMal)
- Combined mineral vitamin mix (CMV)
- Iron syrup (e.g., ferrous fumarate)
- Folic acid
- Vitamin A (Retinol 100,000 and 200,000 IU capsules)
- Glucose (or sucrose)
- IV fluids – one of the following, listed in order of preference:
 - Half-strength Darrow's solution with 5% glucose
 - Ringer's lactate solution with 5% glucose*
 - Half-normal (0.45%) saline with 5% glucose*

* If either of these is used, add sterile potassium chloride (20 mmol/L) if possible.
- Normal (0.90%) saline (for soaking eye pads)
- Sterile water for diluting
- Vaccines as per the national expanded programme of immunisation
- Dextrostix
- Haemoglobinometer
- Supplies for intravenous (IV) fluid administration :
 - Scalp vein (butterfly) needles, gauge 21 or 23
 - Heparin solution, 10–100 units/ml
 - Poles or means of hanging bottles of IV fluid
 - Tubing
 - Bottles or bags
- Paediatric nasogastric tubes (NGTs)
- Sticky tape
- Syringes (50 ml for feeds)
- Syringes (2 ml for drugs, 5 ml for drawing blood, 10 ml)

- Sterile needles
- Eye pads
- Bandages
- Gauze
- Supplies for blood transfusion:
 - Blood packs
 - Bottles
 - Syringes and needles
 - Other blood collecting materials

Drugs

- Amoxicillin
- Amoxicillin-clavulanic acid
- Gentamicin
- Chloramphenicol
- Ceftriaxone
- Cotrimoxazole
- Mebendazole and/or albendazole
- Tetracycline eye ointment or chloramphenicol eye drops
- Atropine 1% eye drops
- Paracetamol
- Antimalarial: Artemisinin Combination Therapy (ACT)
- Metronidazole

For Skin

- Nystatin
- Benzyl benzoate
- Whitfield's ointment
- Gentian violet
- Paraffin gauze
- Potassium permanganate
- Zinc oxide ointment

Laboratory Resources

- Malaria diagnostic test
- TB tests (x-ray, culture of sputum, Mantoux)
- Urinalysis
- Stool culture
- Blood culture
- Cerebrospinal fluid culture

Hygiene Equipment/Supplies of Mothers and Staff

- Toilet, hand-washing and bathing facilities
- Soap for hand-washing
- Place for washing bedding and clothes
- Method for trash disposal

Kitchen Equipment/Supplies

- Dietary scales able to weigh to 5 g
- Electric blender or manual whisks
- Large containers and spoons for mixing/cooking feed for the ward

- Cooking stove
- Feeding cups, saucers, spoons
- Measuring cylinders (or suitable utensils for measuring ingredients and leftovers)
- Jugs (1-litre and 2-litre)
- Refrigeration (if possible)
- For making F-75 and F-100:
 - Dried skimmed milk, whole dried milk, fresh whole milk or long-life milk
 - Sugar
 - Cereal flour
 - Vegetable oil
 - Clean water supply
- Food for mothers
- Foods similar to those used in homes (for teaching transition to homemade complementary foods)

Reference

- CMAM Manual
- Operational Guide for Inpatient Care

Job Aids

Laminated Set

- Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5
- Routine and Other Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care
- Action Protocols in Inpatient Care
- Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care
- 10 Steps for the Management of SAM in Children 6–59 Months in Inpatient Care
- Pathophysiology Basis for the Treatment of Severe Acute Malnutrition
- Hypernatraemic Dehydration in Children under 5 in Inpatient Care
- Weight-for-Height/Length Look-Up Tables
- F-75 Look-Up Tables
- F-100 Look-Up Tables
- F-100-Diluted Look-Up Tables
- Use of RUTF in Children 6-59 months with SAM in Inpatient Care and RUTF Appetite Test
- Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months
- Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Wall Charts

- Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5
- Action Protocols in Inpatient Care
- Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care
- 10 Steps for Management of SAM in Children 6–59 Months in Inpatient Care

Forms and Checklists

- Inpatient Management Record
- Daily Feeds Chart
- Referral Form
- Site Tally Sheet
- Monthly Site Report for CMAM
- Supervisor's Checklist

Other Documents

- List of outpatient care sites with catchment area, and names community outreach workers (developed per Inpatient Care site) (if available)
- Job descriptions

Staff

Clinical Care Staff

This includes physicians, senior nurses and junior nurses. A physician is recommended but is not always necessary. Only clinicians who are specifically trained in the management of SAM should treat these patients, because treatment for the non-malnourished child could be dangerous for the malnourished child.

A ratio of 1 clinician per 10 patients is considered appropriate in Inpatient Care.

Feeding Assistants

Feeding assistants are in charge of weighing the child, supervising meals, interacting with mothers, monitoring clinical warning signs and filling in most of the information on the patient's Inpatient Management Record. Other staff in this category could be in charge of the emotional and physical stimulation programme.

A ratio of 1 assistant per 10 patients is considered appropriate in Inpatient Care.

Support Staff

Cleaners and kitchen staff are vital to maintaining a tidy environment and preparing therapeutic milks and food for mothers. In large centres, a person in charge of the logistics and transport will be necessary. Guardians, storekeepers and other ancillary staff might be needed depending on the context and size of the facility.

Supervisors

One supervisor is needed for each ward with Inpatient Care (usually, but not necessarily, a clinician).

Annex C. Tally Sheet for Clinical Sessions

The tally sheet for each clinical session can help you keep track of the objectives accomplished with each group. It will also help you 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 other 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.

Clinical Sessions Tally Sheet

Day 1: Tour of Ward

Objectives	Group A	Group B	Group C
Observe the admissions area			
Observe emergency treatment area			
Observe how the SAM ward or area is organised			
Observe kitchen area			
Observe any special areas for play, health education, etc.			

Day 2: Clinical Signs and Anthropometric Measurements

Objectives	Group A	Group B	Group C
Observe children with clinical signs of SAM			
Look for signs of SAM and medical complications			
Measure MUAC			
Measure weight and length/height			
Look up WFH z-scores			
Look up target weight for discharge			
Test the appetite with RUTF			
Identify children with SAM, review admission criteria and discuss treatment in Inpatient Care or Outpatient Care			

Day 3: Initial Management

Objectives	Group A	Group B	Group C
Observe initial management of children with SAM			
Identify clinical signs of SAM			
Identify medical complications:			
▶ hypoglycaemia			
▶ hypothermia			
▶ shock			
▶ dehydration			
▶ severe anaemia			
▶ corneal ulceration			
Practise using dextrostix			
Practise filling out an Inpatient Management Record during initial management			
Assist in initial management, if feasible, such as:			
▶ Check for signs of shock: cold hands with slow capillary refill or weak or fast pulse			
▶ Take rectal temperature			
▶ Give bolus of glucose for hypoglycaemia			
▶ Warm child			
▶ Give first feed			

Day 4: Flexible half-day, optional clinical session

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

Objectives	Group A	Group B	Group C
Observe and assist in conducting initial management, if feasible, including: <ul style="list-style-type: none"> ▸ Identify signs of possible dehydration in a child with SAM 			
<ul style="list-style-type: none"> ▸ Measure and give ReSoMal 			
<ul style="list-style-type: none"> ▸ Monitor a child on ReSoMal 			
<ul style="list-style-type: none"> ▸ Determine antibiotics and dosages 			
Practise testing the appetite with RUTF, for a child who shows appetite and is clinically well and alert			
Practise conducting the supplemental suckling technique if possible			
Observe nurses (and nutritionists) measuring and giving feeds			
Practise measuring, giving and recording feeds			

Day 6: Feeding

Objectives	Group A	Group B	Group C
Review 24-Hour Food Intake Charts and plan feeds for the next day			
Determine if child is ready for RUTF and/or F-100; practise conducting the RUTF appetite test (continued)			
Prepare F-75, F-100 and ReSoMal, and learn the contents of RUTF			
Practise measuring, giving and recording feeds (continued)			

Day 7: Daily Care and Monitoring Quality Care

Objectives	Group A	Group B	Group C
Keep Inpatient Management Records on children observed and cared for			
Participate in daily care tasks, as feasible: <ul style="list-style-type: none"> ▸ Measure pulse rate, respiratory rate and temperature 			
<ul style="list-style-type: none"> ▸ Administer eye drops, antibiotics, other drugs and supplements; change eye bandages; etc 			
<ul style="list-style-type: none"> ▸ Weigh child and record weight (on Daily Care page and on Weight Chart of Inpatient Management Record) 			
<ul style="list-style-type: none"> ▸ Observe and assist with bathing children 			
Assist with feeding (continued practice)			
Discuss progress to referral and/or discharge and decide when the child is ready; practise referral to Outpatient Care when stabilised and discharge when fully recovered			
Monitor quality of care using checklist			
Practise filling out tally and reporting sheets, and assess performance			

Additional Objectives

Objectives	Group A	Group B	Group C
Observe a health and nutrition education session (and a cooking session) with mothers			
Observe a play session			



Bilateral Pitting Oedema

[Under 5]

* *Bilateral pitting oedema always starts in both feet. Oedema in only one foot is not of nutritional origin.*

1 Hold the child's feet and press your thumbs on top of both feet. Count to 3 and then lift your thumbs. If no pit shows or if a pit only shows in one foot, the child does not have bilateral pitting oedema. If a pit shows in both feet, go to Step 2.

2 Continue the same test on the lower legs, hands, and lower arms. If no pitting appears in these areas, then the child is said to have mild (grade +) bilateral pitting oedema. (Mild bilateral pitting oedema only shows in the feet.) If pitting appears in these areas, go to Step 3.

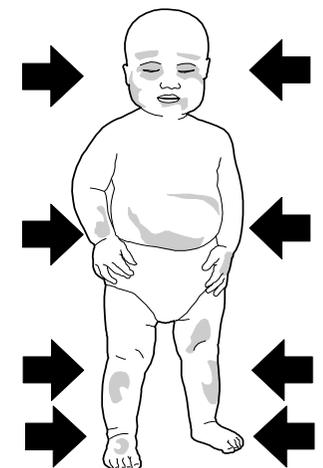
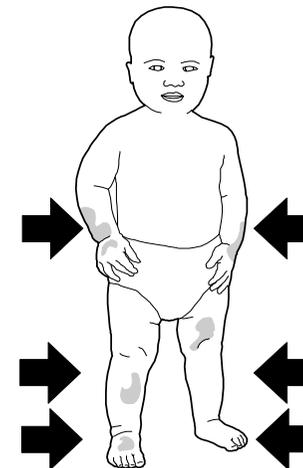
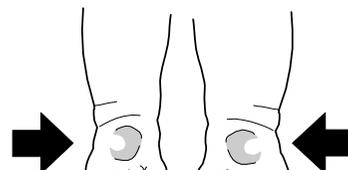
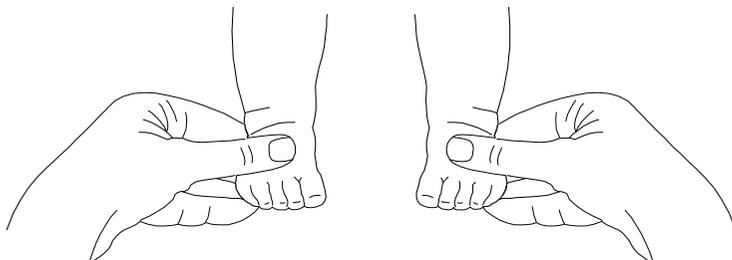
3 Look for swelling in the face, especially around the eyes. If no swelling appears in the face, then the child is said to have moderate (grade ++) bilateral pitting oedema. If swelling appears in the face, the child is said to have severe (grade +++) bilateral pitting oedema.

4 If child has oedema, have a second person repeat the test to confirm results.

+

++

+++





MUAC (without aid)

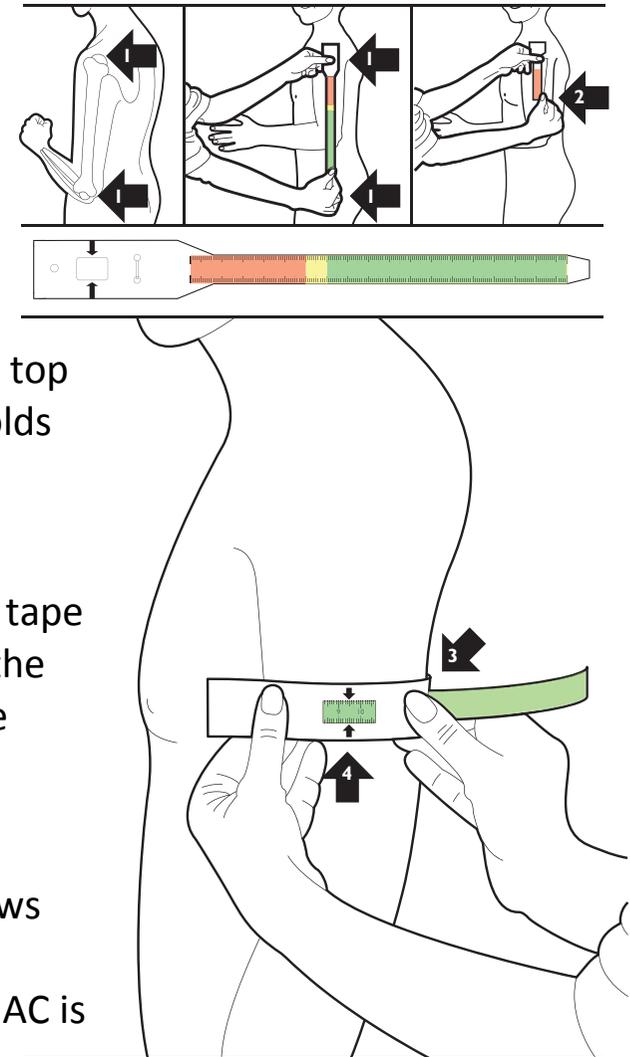
[6–59 months]

1 MUAC is always taken on the left arm. Have the child bend his/her left arm at a 90° angle. Find the top of the shoulder and the tip of the elbow. Put the top edge of the MUAC tape on the top of the shoulder and place the right thumb on the tape where it meets the tip of the elbow (endpoint).

Find the middle of the upper arm by carefully folding the endpoint to the top edge of the tape and place the left thumb on the point where the tape folds (midpoint).

With the child's arm relaxed and falling alongside his/her body, wrap the tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.

Read the measurement from the middle window, exactly where the arrows point inward. Depending on the tape used, the measurement will be in millimetres (mm), centimetres (cm), or in colour (red, yellow, green). MUAC is recorded with a precision of 1 mm (0.1 cm).

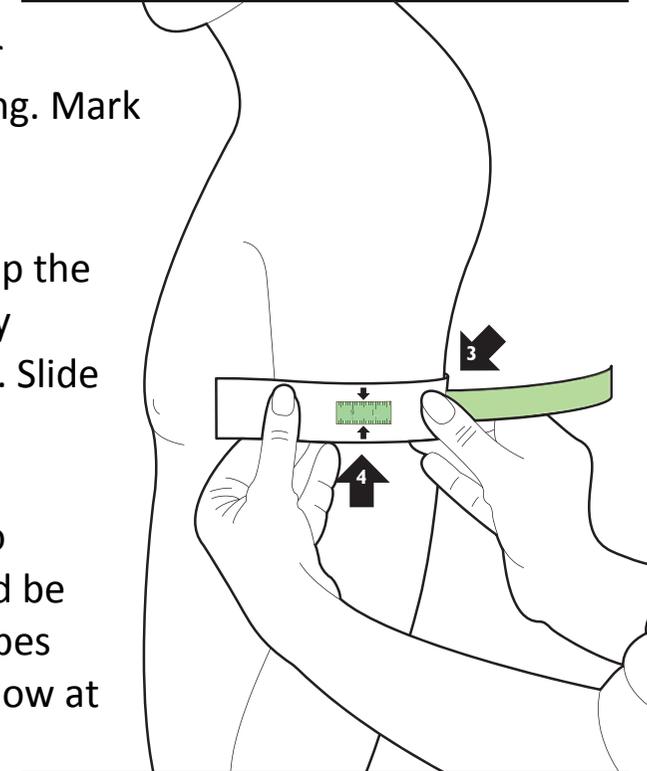
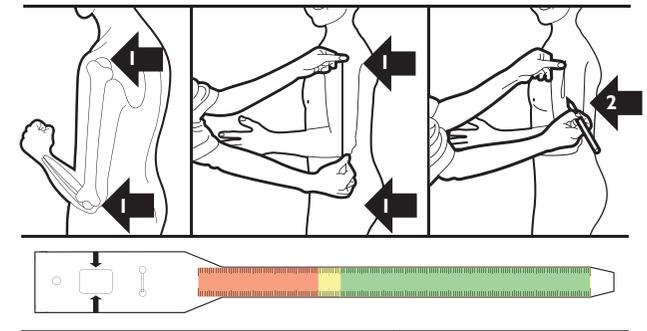




MUAC (with pen & string)

[6–59 months]

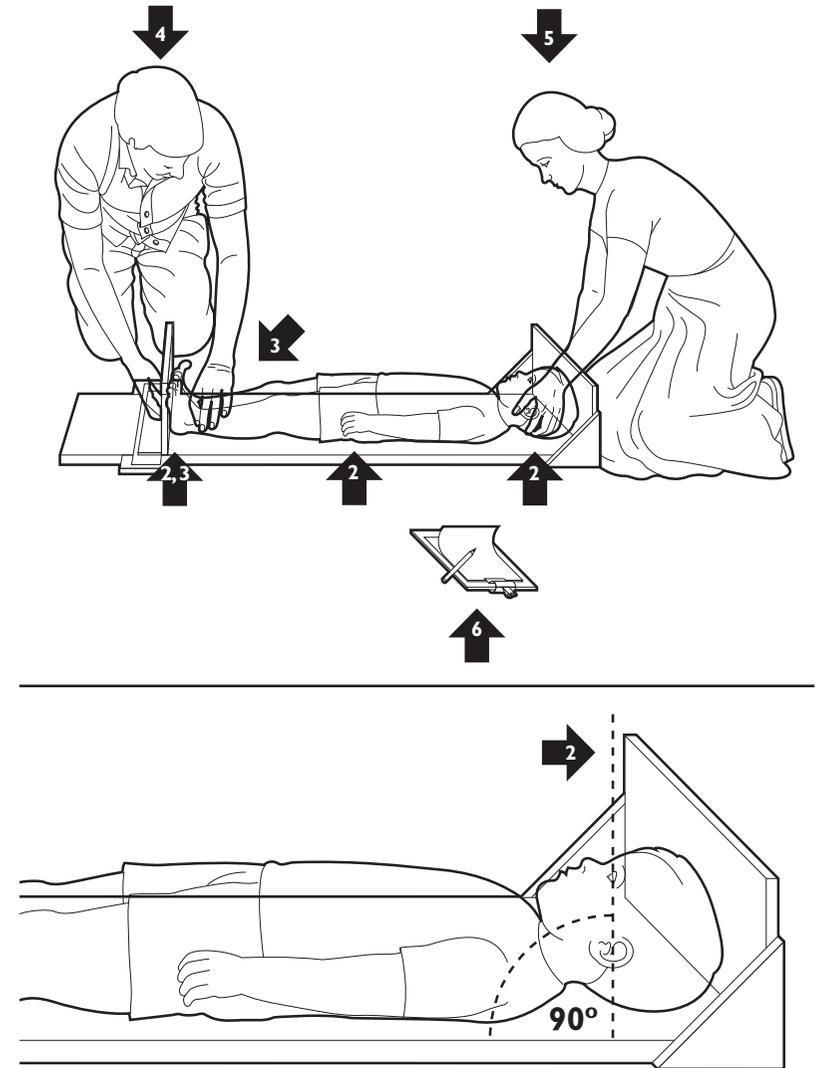
- 1** MUAC is always taken on the left arm. Have the child bend his/her arm at a 90-degree angle. Find the top of the shoulder and the tip of the elbow. Hold one end of a piece of string at the top of the shoulder and hold the string where it meets the tip of the elbow (endpoint).
- 2** Fold the endpoint up to the end of the string on top of the shoulder and place the left thumb on the point of the folded ends of the string. Mark the midpoint with a pen.
- 3** With the child's arm relaxed and falling alongside his/her body, wrap the MUAC tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.
- 4** Read the measurement from the middle window exactly where two arrows point inward. For numbered tapes, the measurement should be recorded with a precision of 1 millimetre (mm). For three-colour tapes (red, yellow, green), record the colour that shows through the window at the point the two arrows indicate.





Height Using Length Board [Under 2 years **OR**, if age is not known, height less than 87 cm, **OR** 2 years or older or at least 87 cm tall but unable to stand]

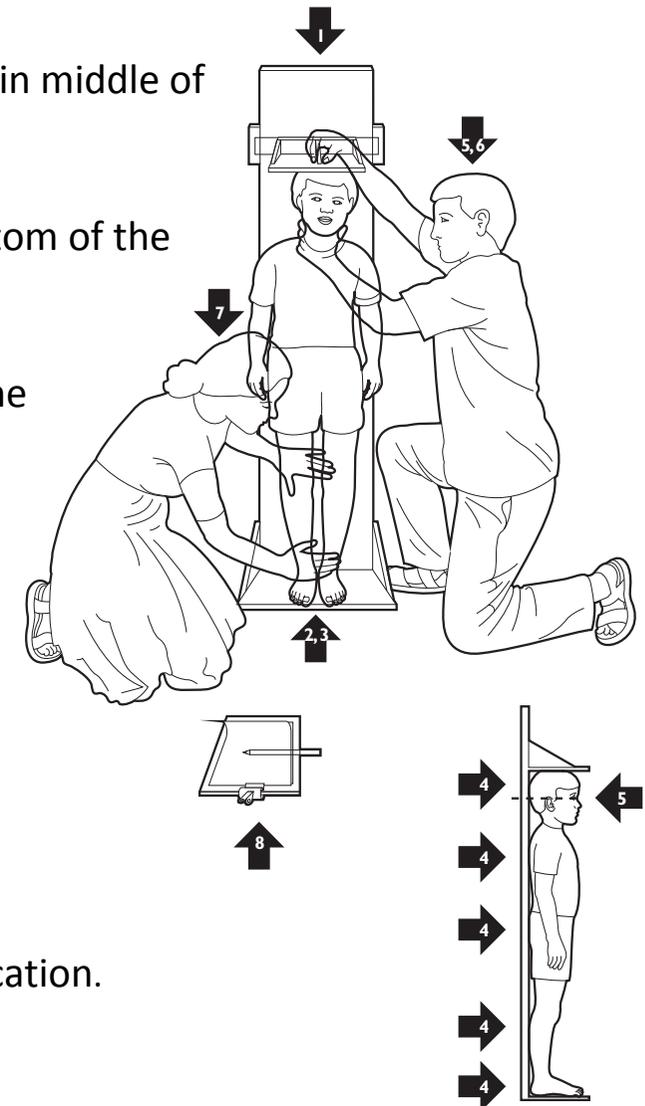
- 1 Place height board on the ground and remove child's shoes.
- 2 Place child on his/her back in middle of board, head facing straight up, arms at child's sides and feet at 90° angles to board.
- 3 While holding child's ankles or knees, move sliding board up against bottom of child's feet.
- 4 Take measurement to nearest 0.1 cm and read out loud.
- 5 The assistant, while holding the child's head in place, repeats the measurement for verification.
- 6 Measurer records height to nearest 0.1 cm. If child is 2 years or older or is 87 cm or greater while standing up, subtract 0.7 cm from measurement.





Height Using Height Board [2 years or older **OR** height 87 cm or greater **AND** able to stand]

- 1 Remove child's shoes and place him/her on height board, standing upright in middle of board with arms at his/her sides.
- 2 Child's feet should be close together with heels and soles touching the bottom of the board (that is, not standing tiptoe).
- 3 The back of the child's ankles and knees should be firmly pressed toward the board.
- 4 The child should stand straight, with heels, back of legs, buttocks, shoulders and head touching the back of the board.
- 5 Measurer holds child's head straight. The child's line of vision should be parallel to the floor.
- 6 Measurer reads measurement out loud to nearest 0.1 cm.
- 7 Assistant, holding child's legs and feet, repeats the measurement for verification.
- 8 Measurer records height to nearest 0.1 cm.





Tips for Weighing a Child or Infant

- ✓ Never weigh a child without explaining the procedure to the caregiver.
- ✓ Children should be weighed and completely naked only in the presence of the caregiver. Have the caregiver remove the child's clothes.
- ✓ Put a soft cloth or the child's wrapping on the scale to protect the child from the hard and potentially cold surface.
- ✓ Read the child's weight when the child is not moving. The child should remain still for the weighing.
- ✓ Scales must be cleaned and re-zeroed after each weighing.
- ✓ Infants under 6 months are weighed using an infant scale with of a 10-gram precision



Weight Using a Solar Electronic Scale

[6–59 months]

* 'Tared weighing' means that the scale can be reset to zero ('tared') with the person just weighed still on it. Stress that the caregiver must stay on the scale until his/her child has been weighed in her arms.

1 Be sure that the scale is placed on a flat, hard, even surface. Since the scale is solar powered, there must be enough light to operate the scale.

2 To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

3 Check to see that the caregiver has removed his/her shoes. You or someone else should hold the naked child wrapped in a blanket.

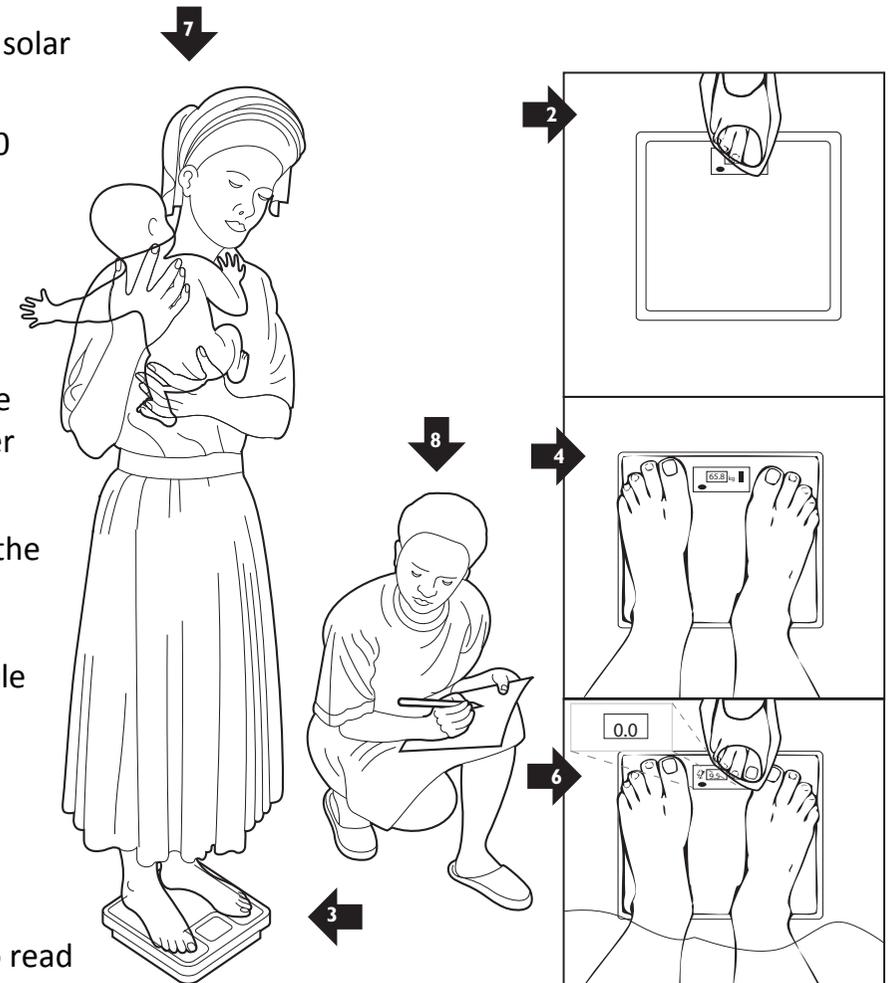
4 Ask the caregiver to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The caregiver's clothing must not cover the display or solar panel.

5 Remind him/her to stay on the scale even after his/her weight appears, until the child has been weighed in his/her arms.

6 With the caregiver still on the scale and his/her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of an adult and a child and the number 0.0.

7 Gently hand the naked child to the caregiver and ask him/her to remain still.

8 The child's weight will appear on the display. Record the weight. Be careful to read the numbers in the correct order (as though you were viewing while standing on the scale rather than upside-down).



Adapted from "How to use the UNISCALE" UNICEF, 2000 and "Weighing a Child Using a Taring Scale" WHO, 2006.



Weight Using Hanging Scale (Pants)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measurement does not match that of the known weight to within 10 grams, the springs must be changed or the scale should be replaced.

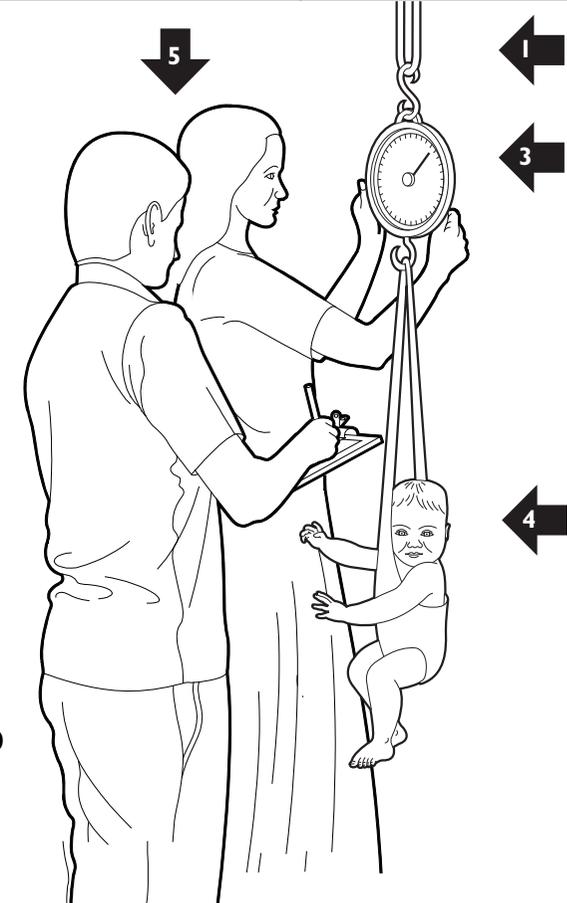
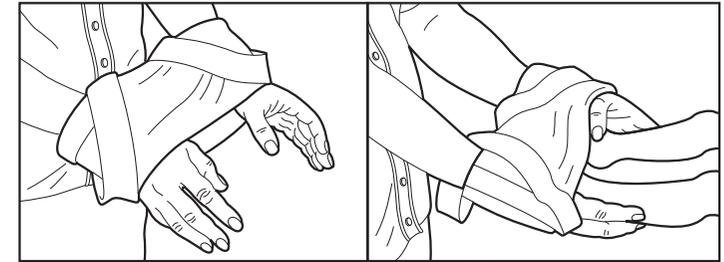
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the weighing pants hooked on the scale.

4 Place child in weighing pants and let child hang freely, touching nothing. Make sure the child is safely in the weighing pants, with one arm in front and one arm behind the straps to help maintain balance.

5 When arrow is steady, measurer reads child's weight in kg at **eye level** to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using Hanging Scale (Bucket)

[6–24 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams, the springs must be changed or the scale should be replaced.

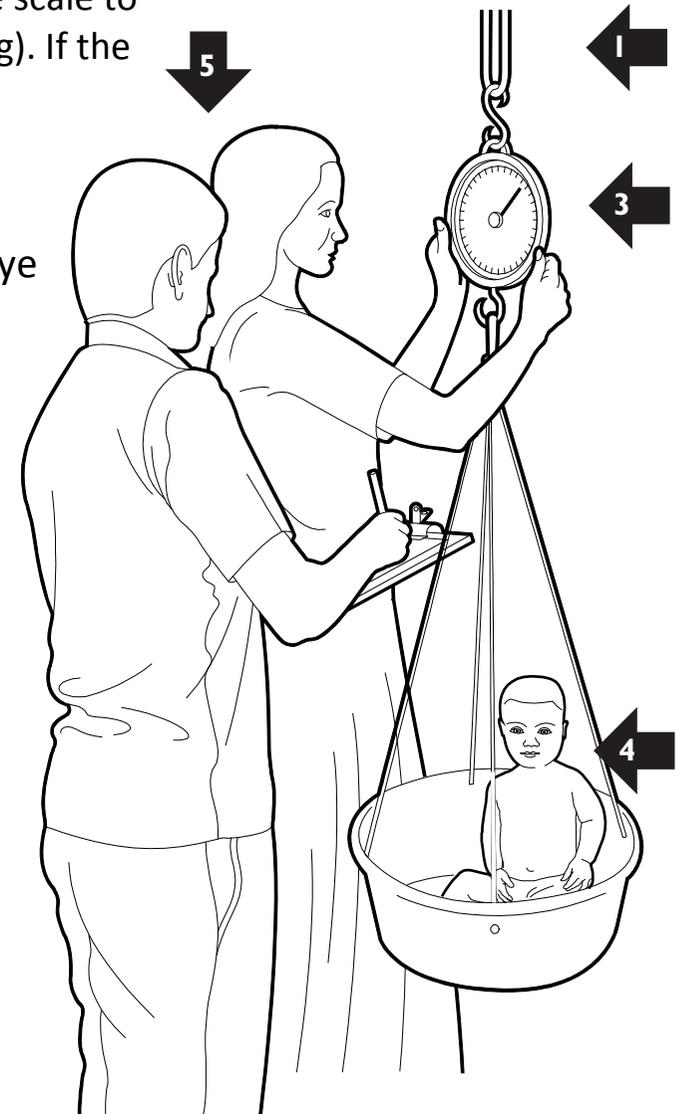
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer. Put a soft cloth or the child's wrapping in the bucket.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the bucket hooked on the scale.

4 Place child in weighing bucket.

5 When arrow is steady, measurer reads child's weight in kg at **eye level**. The assistant repeats it for verification and records it to nearest 100 g (for example, 5.2 kg).





Weight Using Hanging Scale (Cloth)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (e.g., 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams the springs must be changed or the scale should be replaced.

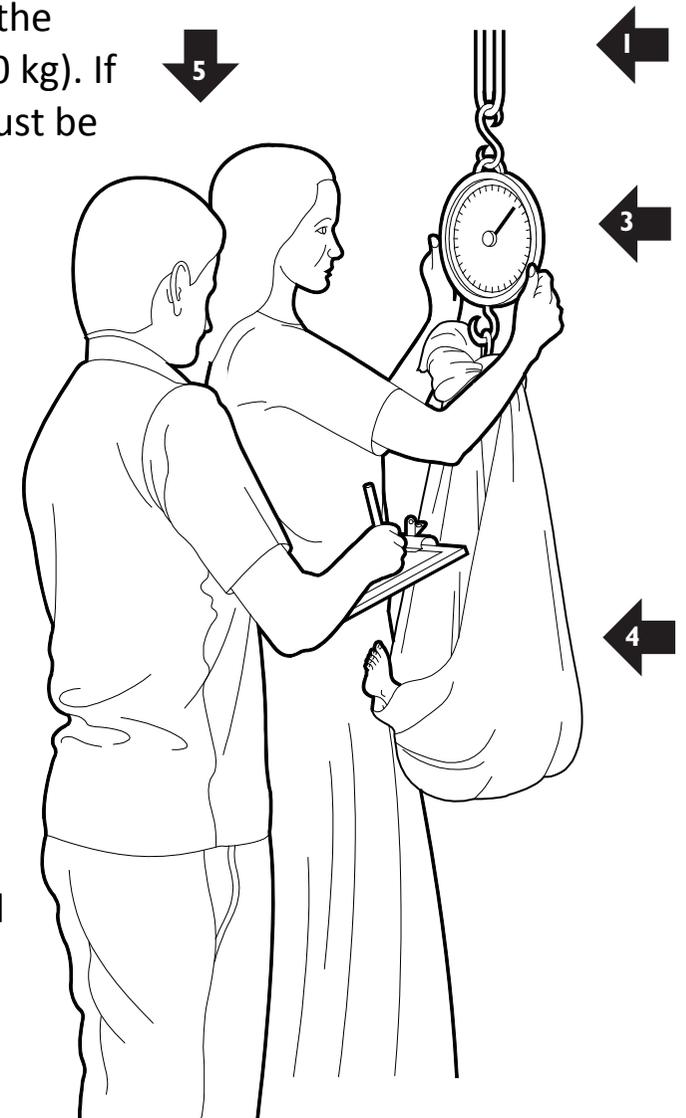
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all his/her clothes off.

3 Make sure the weighing scale arrow is at 0 (zero the scale) each time with the hammock or cloth that will be used hooked on the scale.

4 Place child in hammock or cloth, hook it on the scale, and let child hang freely, touching nothing. Make sure the child is safely in the hammock or cloth.

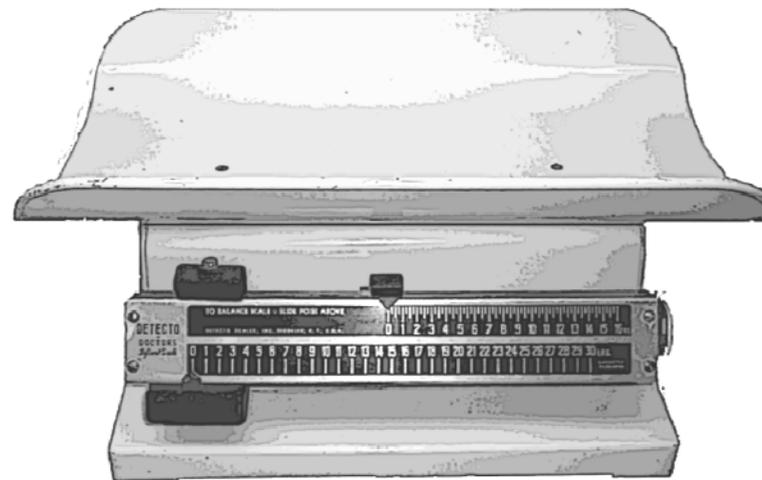
5 When arrow is steady, measurer reads child's weight in kg at eye level and to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using an Infant Beam Scale [Infants under 6 Months]

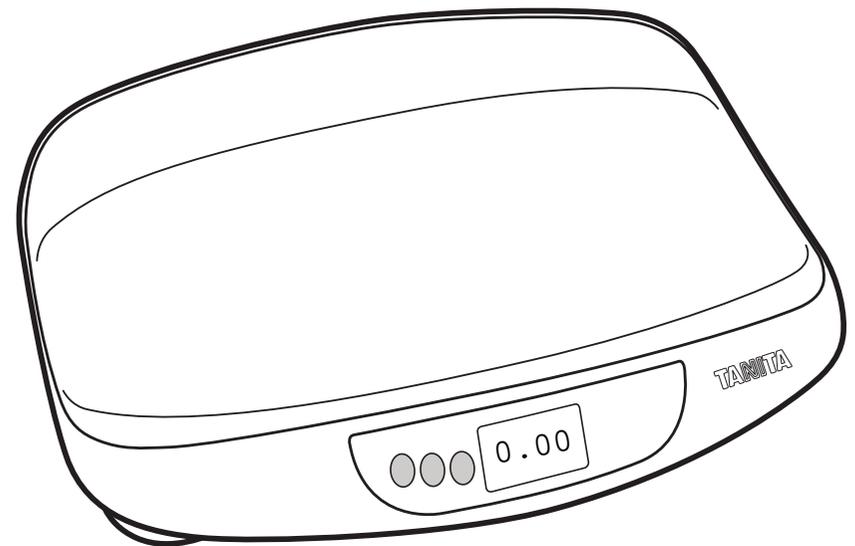
- 1 Unlock the beam, put a soft cloth or the infant's wrapping on the scale, and zero the scale (i.e., make sure that the end of the beam is not touching either the top or the bottom of the hole it fits through).
- 2 Have the caregiver remove the infant's clothes and put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale.
- 3 Move the weights along the beam until the end of the beam is not touching either the top or the bottom of the hole it fits through.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 2 kg 220 g).
- 5 Lock the beam and remove the infant.
- 6 Clean and re-zero the scale.





Weight Using an Infant Bench Scale [Infants under 6 Months]

- 1 Have the caregiver remove the infant's clothes and hold the child.
- 2 Put a soft cloth or the infant's wrapping on the scale and turn it on. Wait until the scale shows zeros.
- 3 Within 60 seconds of the scale showing zeros, have the caregiver put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale. The scale will display the infant's weight.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 3 kg 470 g).
- 5 Turn off the scale and remove the infant.
- 6 Clean the scale.





Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5

Inpatient Care

Outpatient Care

ADMISSION CRITERIA

CHILDREN 6–59 MONTHS

- Bilateral pitting oedema +++
OR
 Any grade of bilateral pitting oedema with severe wasting (MUAC < 115 mm or WFH < -3 z-score)

OR

- SAM with any of the following medical complications:
- Anorexia, poor appetite
 - Intractable vomiting
 - Convulsions
 - Lethargy, not alert
 - Unconsciousness
 - Hypoglycaemia
 - High fever
 - Hypothermia
 - Severe dehydration
 - Persistent diarrhoea
 - Lower respiratory tract infection
 - Severe anaemia
 - Eye signs of vitamin A deficiency
 - Skin lesion

OR

- Referred from Outpatient Care according to action protocol

INFANTS < 6 MONTHS

(Includes infants with SAM ≥ 6 months and < 4 kg)

- Bilateral pitting oedema

OR

- Visible wasting

CHILDREN 6–59 MONTHS

- Bilateral pitting oedema + or ++
OR
 Severe wasting (MUAC < 115 mm or WFH < -3 z-score)

AND

- Appetite test passed
- No medical complication
- Child clinically well and alert

REFERRAL/DISCHARGE CRITERIA

CHILDREN 6–59 MONTHS

- Referred to Outpatient Care:
- Appetite returned (passed appetite test)
 - Medical complication resolving
 - Severe bilateral pitting oedema decreasing
 - Child clinically well and alert
- (additional criterion for referral for cases of oedema with wasting: bilateral pitting oedema resolved)
- Discharged cured (special cases):
- 15 percent weight gain maintained for 2 consecutive weeks (of admission weight or weight free of oedema) (for cases of wasting and of oedema with wasting)
 - Oedema-free for 2 consecutive weeks
 - Child clinically well and alert

INFANTS < 6 MONTHS

- Discharged cured (for breastfed infants):
- Successful re-lactation and appropriate weight gain maintained (minimum 20 g per day on breastfeeding alone for 5 days) and infant clinically well and alert
 - Oedema-free for 2 consecutive weeks

(See other guidance for non-breastfed infants who are on replacement feeding.)

CHILDREN 6–59 MONTHS

- Discharged cured:
- 15 percent weight gain maintained for 2 weeks (of admission weight or weight free of oedema)
 - Oedema-free for 2 consecutive weeks
 - Child clinically well and alert

Children are referred to receive supplementary feeding if available.



Weight-for-Length Look-Up Table Children 6–23 Months

[WHO 2006 Child Growth Standards]

If a child is under 2 years old, or if a child is less than 87 cm tall and his/her age is not known, measure length while the child is lying down (recumbent). Use the weight-for-length look-up table.

Boys' weight (kg)				Length (cm)	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median		Median	-1 SD	-2 SD	-3 SD
1.9	2.0	2.2	2.4	45	2.5	2.3	2.1	1.9
2.0	2.2	2.4	2.6	46	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2
2.3	2.5	2.7	2.9	48	3.0	2.7	2.5	2.3
2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4
2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6
2.7	3.0	3.2	3.5	51	3.6	3.3	3.0	2.8
2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9
3.1	3.4	3.7	4.0	53	4.0	3.7	3.4	3.1
3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3
3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5
3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7
4.0	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9
4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1
4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3
4.7	5.1	5.5	6.0	60	5.9	5.4	4.9	4.5
4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7
5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9
5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1
5.5	6.0	6.5	7.0	64	6.9	6.3	5.7	5.3
5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5
5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6
6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8
6.3	6.8	7.3	8.0	68	7.7	7.1	6.5	6.0
6.5	7.0	7.6	8.2	69	8.0	7.3	6.7	6.1
6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3
6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5
7.0	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6
7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8
7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9
7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1
7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2
7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4
7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5
8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7
8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0
8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1
8.7	9.4	10.2	11.0	83	10.7	9.8	9.0	8.3
8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5
9.1	9.8	10.6	11.5	85	11.2	10.3	9.4	8.7
9.3	10.0	10.8	11.7	86	11.5	10.5	9.7	8.9
9.5	10.2	11.1	12.0	87	11.7	10.7	9.9	9.1
9.7	10.5	11.3	12.2	88	12.0	11.0	10.1	9.3
9.9	10.7	11.5	12.5	89	12.2	11.2	10.3	9.5
10.1	10.9	11.8	12.7	90	12.5	11.4	10.5	9.7
10.3	11.1	12.0	13.0	91	12.7	11.7	10.7	9.9
10.5	11.3	12.2	13.2	92	13.0	11.9	10.9	10.1
10.7	11.5	12.4	13.4	93	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	94	13.5	12.3	11.3	10.4
11.0	11.9	12.8	13.9	95	13.7	12.6	11.5	10.6
11.2	12.1	13.1	14.1	96	14.0	12.8	11.7	10.8
11.4	12.3	13.3	14.4	97	14.2	13.0	12.0	11.0
11.6	12.5	13.5	14.6	98	14.5	13.3	12.2	11.2
11.8	12.7	13.7	14.9	99	14.8	13.5	12.4	11.4
12.0	12.9	14.0	15.2	100	15.0	13.7	12.6	11.6



Weight-for-Height Look-Up Table Children 24–59 Months

[WHO 2006 Child Growth Standards]

If a child is 2 years old or older, or if a child is at least 87 cm tall and his/her age is not known, measure standing height. If a child 2 years old or older or at least 87 cm tall is unable to stand, measure length while the child is lying down (recumbent) and subtract 0.7 cm from the length to arrive at a comparable height. Use the weight-for-height look-up table.

Boys' weight (kg)				Height (cm)	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median		Median	-1 SD	-2 SD	-3 SD
5.9	6.3	6.9	7.4	65	7.2	6.6	6.1	5.6
6.1	6.5	7.1	7.7	66	7.5	6.8	6.3	5.8
6.2	6.7	7.3	7.9	67	7.7	7.0	6.4	5.9
6.4	6.9	7.5	8.1	68	7.9	7.2	6.6	6.1
6.6	7.1	7.7	8.4	69	8.1	7.4	6.8	6.3
6.8	7.3	7.9	8.6	70	8.3	7.6	7.0	6.4
6.9	7.5	8.1	8.8	71	8.5	7.8	7.1	6.6
7.1	7.7	8.3	9.0	72	8.7	8.0	7.3	6.7
7.3	7.9	8.5	9.2	73	8.9	8.1	7.5	6.9
7.4	8.0	8.7	9.4	74	9.1	8.3	7.6	7.0
7.6	8.2	8.9	9.6	75	9.3	8.5	7.8	7.2
7.7	8.4	9.1	9.8	76	9.5	8.7	8.0	7.3
7.9	8.5	9.2	10.0	77	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	78	9.8	9.0	8.3	7.6
8.2	8.8	9.6	10.4	79	10.0	9.2	8.4	7.8
8.3	9.0	9.7	10.6	80	10.2	9.4	8.6	7.9
8.5	9.2	9.9	10.8	81	10.4	9.6	8.8	8.1
8.7	9.3	10.1	11.0	82	10.7	9.8	9.0	8.3
8.8	9.5	10.3	11.2	83	10.9	10.0	9.2	8.5
9.0	9.7	10.5	11.4	84	11.1	10.2	9.4	8.6
9.2	10.0	10.8	11.7	85	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	86	11.6	10.7	9.8	9.0
9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2
9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4
10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6
10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8
10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0
10.6	11.4	12.3	13.4	92	13.1	12.0	11.1	10.2
10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4
11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6
11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8
11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9
11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1
11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3
11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5
12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7
12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0
12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2
12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4
13.0	14.0	15.2	16.5	104	16.4	15.0	13.8	12.6
13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9
13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1
13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4
13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7
14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9
14.4	15.6	17.0	18.5	110	18.6	17.0	15.5	14.2
14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5
14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8
15.2	16.5	18.0	19.6	113	19.8	18.0	16.5	15.1
15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4
15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7
16.0	17.4	19.0	20.8	116	21.1	19.2	17.5	16.0
16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3
16.5	18.0	19.7	21.6	118	22.0	19.9	18.2	16.6
16.8	18.3	20.0	22.0	119	22.4	20.3	18.5	16.9
17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3



10 Steps for the Management of SAM in Children 6–59 Months in Inpatient Care

STEP	PREVENTION	WARNING SIGNS	IMMEDIATE ACTION
<p>1. Prevent or Treat Hypoglycaemia (Low blood sugar) Hypoglycaemia is a blood glucose < 3 mmol/L or < 54 mg/dl).</p>	<p>For all children:-</p> <ol style="list-style-type: none"> 1. Feed straightaway and then every 2 hours, day and night. 2. Encourage mothers to watch for any deterioration of their children’s general condition and to help feed and keep their children warm. 	<ol style="list-style-type: none"> 1. Low temperature (hypothermia) noted on routine check. 2. Lethargy, limpness and loss of consciousness. Child can become drowsy. 3. Retraction of eyelids. Child sleeping with half-open eyes. 	<p>If hypoglycaemia is suspected, give treatment immediately without blood glucose test confirmation. But if you have the dextrostix test readily available, conduct the test to confirm the hypoglycaemia before treatment.</p> <p>If conscious:</p> <ol style="list-style-type: none"> 1. Give a bolus of 10% glucose (50 ml) or sugar solution (1 rounded teaspoon of sugar in 3 tablespoons of water). Bolus of 10% glucose is best, but give sugar solution or F-75 rather than wait for glucose. 2. Start feeding straightaway: Feed 2-hourly (12 feeds in 24 hours). Use the F-75 Look-Up Table for amount to give and feed every 2 hours day and night. <p>If unconscious:</p> <ol style="list-style-type: none"> 1. Give glucose IV (sterile 10% glucose 5 ml/kg), followed by 50 ml 10% glucose by NGT.
<p>2. Prevent or Treat Hypothermia (Low temperature) Hypothermia is an axillary temperature < 35° C or rectal temperature < 35.5° C.</p>	<p>For all children:-</p> <ol style="list-style-type: none"> 1. Feed straightaway and then every 2 hours, day and night. 2. Keep warm. Use the kangaroo technique; cover with a blanket. Let mother sleep with child to keep child warm. 3. Keep room warm; no draughts. 4. Keep bedding/clothes dry. Dry child carefully after bathing. Do not bathe child if very ill. 5. Avoid exposing child during examinations. 6. Use a heater with caution. Do not use hot water bottles or fluorescent lamps. 	<p>Low temperature NOTE: Hypothermia in children with SAM may indicate co-existing hypoglycaemia and serious infection.</p>	<p>Take axillary or rectal temperature on admission. (Ensure thermometer with low reading is well shaken down.)</p> <p>If the axillary temperature is < 35.0°C or rectal temperature is < 35.5° C:</p> <ol style="list-style-type: none"> 1. Feed straightaway (or start rehydration if needed). 2. Re-warm. Put the child on the mother’s bare chest, skin-to-skin contact (kangaroo technique) and cover them, OR clothe the child including the head, cover with a warmed blanket and place a heater or incandescent lamp near the bed. 3. Feed 2-hourly (12 feeds in 24 hours). <p>Monitor during re-warming</p> <ul style="list-style-type: none"> ➤ Take rectal temperature every 2 hours; stop re-warming when temperature rises above 36.5° C. ➤ Take temperature every 30 minutes if heater is used because the child may become overheated.
<p>3. Prevent or Treat Dehydration (Too little fluid in the body)</p>	<p>When a child has watery diarrhoea, give ReSoMal orally (or, if the child is unconscious or too ill to take the ReSoMal orally, by NGT between feeds after each loose stool:</p> <ul style="list-style-type: none"> ➤ For severe wasting, based on estimated volume of stool, give 50–100 ml after each watery stool if child is aged < 2 years and 100–200 ml if aged 2 years or older. ➤ For oedema, give 30 ml after each watery stool. <p>If the child is breastfed, encourage to continue.</p>	<p>Assume severe dehydration if there is recent history of profuse watery diarrhoea and recent sunken eyes. (Recent = within 24 hours)</p>	<p>DO NOT GIVE IV FLUIDS EXCEPT IN SHOCK (see Action Protocols in Inpatient Care Job Aid for information on treating shock).</p> <p>If dehydrated:</p> <ol style="list-style-type: none"> 1. Give ReSoMal 5 ml/kg every 30 minutes for 2 hours orally (or, if the child is unconscious or too ill to take the ReSoMal orally, by NGT). 2. Then give 5–10 ml/kg in alternate hours for up to 10 hours (i.e., give ReSoMal and F-75 in alternate hours); use Initial Management Record for monitoring. 3. Stop ReSoMal when there are signs of hydration (e.g., return of tears, passing urine, moist mouth). 4. Give ReSoMal orally (or, if the child is unconscious or too ill to take the ReSoMal orally, by NGT) between feeds after each loose stool: <ul style="list-style-type: none"> ➤ For severe wasting, based on estimated volume of stool, give 50–100 ml after each watery stool if child is aged < 2 years and 100–200 ml if aged 2 years or older. ➤ For oedema, give 30 ml after each watery stool. <p>STOP ReSoMal if there are any signs of over-hydration:</p> <ul style="list-style-type: none"> ➤ Increasing pulse and respiratory rate (pulse increased by at least 25 beats/minute and resp. rate by at least 5 breaths/minute); increasing oedema; puffy eyelids.

STEP	PREVENTION	WARNING SIGNS	IMMEDIATE ACTION
4. Correct Electrolyte Imbalance <i>(Too little potassium and magnesium, and too much sodium)</i>	Use F-75 (and ReSoMal in case of watery diarrhoea) in stabilisation phase as these are low in sodium and contain adequate amounts of other micronutrients.	Lethargy, weakness, abdominal distension, puffy face, oedema develops or worsens.	<p>If no clinical signs: Follow feeding recommendation, prevent dehydration, treat dehydration (rehydration with ReSoMal: low-sodium rehydration fluid).</p> <p>If clinical signs of hypokalemia, give extra potassium (4 mmol/kg).</p> <p>If clinical signs of hypomagnesium, give extra magnesium (0.6 mmol/kg).</p> <p>NOTE: Potassium and magnesium are already added in commercial F-75, F-100, RUTF and ReSoMal packets. They are also in CMV.</p>
5. Prevent or Treat Infections and Infestations	<ol style="list-style-type: none"> Keep children with SAM in a separate ward. Reduce overcrowding if possible. Provide good nursing care: <ul style="list-style-type: none"> ➤ Give drugs in time. ➤ Monitor vital signs. ➤ Wash your hands before preparing feeds, after use of bathroom, after change of nappies, before and after handling the child. ➤ Ensure good hygiene in the ward. Give amoxicillin, 15-30 mg/kg, 3 times per day, for 5 days, orally, even if no clinical signs Give antihelminth after 1 week in treatment to children >1 year, even if no clinical sign. Give measles vaccine to unimmunised children >6 months old. 	<p>The usual signs of infection, such as fever, are often absent, so assume all children with SAM have infection and should be treated with antibiotics.</p> <p>Hypothermia and hypoglycaemia may be signs of severe infection.</p>	<p>Starting on the first day, give broad-spectrum antibiotics to all children.</p> <ol style="list-style-type: none"> If the child has no medical complications, give amoxicillin orally 15–30 mg/kg every 8 hours for 5 days. If the child is severely ill, lethargic or unconscious, or has complications (hypoglycaemia, hypothermia, raw skin/fissures, respiratory tract or urinary tract infection): <ul style="list-style-type: none"> ➤ First-line: Give amoxicillin-clavulanic acid 15–30 mg/kg, 3 times per day, for 5–10 days, orally AND gentamicin 7.5 mg/kg, 1 time per day, for 5–10 days IV or IM ➤ Second-line: If no improvement within 48 hours, add chloramphenicol 25 mg/kg, 3 times per day, for 5 days, IM/IV (Chloramphenicol should not be used for infants under 2 months of age) ➤ Third-line: If no improvement within 48 hours, give ceftriaxone, 100 mg/kg, 1 time per day, for 5–10 days, IV or IM <p>If specific infections are identified that require specific antibiotic(s) not already being given, give additional antibiotic(s) and medicines to address the infection(s) and infestations according to the national protocol (e.g., tuberculosis, HIV infection, giardiasis).</p> <p>For parasitic worms (e.g., helminthiasis, whipworm):</p> <ol style="list-style-type: none"> Give presumptive treatment with antihelminthic after 1 week in SAM treatment <ul style="list-style-type: none"> ➤ Do not give to children under 1 year ➤ Children 1–2 years: Give albendazole 200 mg single dose, or mebendazole 100 mg, 1 time per day, for 3 days, orally ➤ Children 2 years or older: Give albendazole 400 mg single dose, or mebendazole 100 mg, 2 times per day, for 3 days, orally If severe infestation, treat immediately, with doses as above for presumptive treatment.
STEP	MANAGEMENT		
6. Correct Micronutrient Deficiencies	<ol style="list-style-type: none"> Vitamin A: <ul style="list-style-type: none"> ➤ Preventive dose: Give Vitamin A single dose after 4 weeks or upon discharge if no dose has been given in past 3 months: < 6 months old 50,000 IU; 6–12 months old, 100,000 IU; > 12 months old, 200,000 IU. ➤ Therapeutic dose: Give vitamin A on days 1, 2 and 15: < 6 months old 50,000 IU; 6–12 months old 100,000 IU; > 12 months old 200,000 IU. Folic acid: Give 5 mg single dose on day 1. Iron sulphate (ferrous fumarate, 3 mg/kg/day): Add a 200 mg crushed tablet to 2–2.4 L of F-100 for feeds of children, or give for 3–6 kg 0.5 ml, for 6–10 kg 0.75 ml, for 10–15 kg 1 ml after 2 days in transition phase. Do not give iron in stabilisation phase or if the child is receiving RUTF. <p>NOTE: Vitamin A, folic acid, zinc and copper are already added in the commercial F-75, F-100, RUTF and ReSoMal packets. They are also in CMV.</p>		

STEP	MANAGEMENT
7. Start Cautious Feeding	<p>Stabilisation phase:</p> <ol style="list-style-type: none"> 1. Give F-75 therapeutic milk 130 ml/kg/day and divide into 2- to 3-hourly feeds (see F-75 Look-Up Table for amounts for severe wasting and mild and moderate oedema [+ ++] in stabilisation phase). This provides 100 kcal/kg/day. 2. If the child has severe oedema (+++), reduce the volume to 100 ml/kg/day (see F-75 Look-Up Table for amounts for severe oedema [+++] in stabilisation phase). 3. Give 2-hourly feeds in the first 24 hours, then change to 3-hourly feeds according to the condition of the child. 4. If the child has poor appetite, encourage the mother to support the child finishing the feed. If the child takes < 80% of the amount offered for two consecutive feeds, use an NGT (see F-75 Look-Up Table for 80% amount or daily minimum amount). 5. Keep a 24-Hour Food Intake Chart. Measure feeds carefully. (Record leftovers and estimated amount vomited.) 6. If the child is breastfed, always offer breastfeeding before giving F-75. 7. Weigh daily and plot weight. 8. When appetite returns, and infection resolves and oedema is reducing (usually within 1 week), move the child to transition phase. <p>Transition phase:</p> <ol style="list-style-type: none"> 1. Introduce RUTF: <ul style="list-style-type: none"> ➤ Test the appetite with RUTF. Offer plenty of clean water to drink. ➤ If the child takes the RUTF (passes the appetite test), continue all feeds with RUTF, based on 150 kcal/kg/day. Complete the feed with F-100 if necessary (see RUTF and F-100 Look-Up Tables for amounts in transition phase). ➤ If the child does not take RUTF, give F-100 but repeat the appetite test at every feed. 2. If the child is breastfed, encourage continued breastfeeding. 3. Weigh daily and plot weight. (The child should not gain more than 5 g/kg/day.) 4. When the child is able to eat at least 75% of the RUTF, observe the child for 24 hours to ensure he/she is able to eat the daily amount of RUTF. If the child is clinically well and alert and the oedema is reducing, refer the child to Outpatient Care for continuing treatment. 5. If RUTF is not available, continue feeding the child with F-100 130-150 ml/kg/day and divide in 5-6 hourly feeds. This provides 130-150 kcal/kg/day.
8. Increase Feeding to Recover Weight Loss: “Catch-Up Growth”	<p>Rehabilitation phase (for the exceptional cases who stay in Inpatient Care):</p> <ol style="list-style-type: none"> 1. Give RUTF (see RUTF Look-Up Table for amounts in rehabilitation phase). Offer plenty of water to drink. 2. If RUTF is not available, and the child remains in Inpatient Care, continue free feeding on F-100 150-220 ml/kg/day. This provides 150-220 kcal/kg/day (see F-100 Look-Up Table for amounts in rehabilitation phase). If the child finishes the amount prescribed, offer extra amounts of F-100. Encourage the child to eat as much as possible, so the child can gain weight rapidly. 3. If the child is breastfed, encourage continued breastfeeding. 4. Weigh daily and plot weight. (The child should start gaining weight, i.e., more than 10 g/kg/day). 5. Gradually introduce home foods after the child reaches the discharge criteria.
9. Stimulate Emotional and Sensorial Development	<ol style="list-style-type: none"> 1. Provide tender loving care. 2. Help and encourage mothers to comfort, feed and play with their children. 3. Give structured play when the child is well enough.
10. Prepare for Referral and Follow-Up in Outpatient Care	<ol style="list-style-type: none"> 1. Fill in the Outcome page of the Inpatient Management Record. 2. Inform the mother of the closest Outpatient Care site to her home and give the mother a weekly ration of RUTF to continue treatment at home. 3. Send for immunisation update. 4. Establish a link with community health workers for home follow-up in Outpatient Care. 5. Write a clinical summary on the referral form for the health care providers in Outpatient Care.



Routine Medicine Protocols and Vaccines for Children under 5 with SAM in Inpatient Care

Name of Medication	When to Give	Age/Weight	Prescription	Dose
AMOXICILLIN	On admission if no medical complication (also includes cases with severe oedema (+++), severe anaemia, oedema with severe wasting without other medical complications)	6–59 months	Amoxicillin 45–90 mg/kg/day	15–30 mg/kg, orally, 3 times per day, for 5 days
ALBENDAZOLE or MEBENDAZOLE	After 1 week, for presumptive treatment Immediate, for treatment in case of severe infestation	≥ 12 months	1–2 years: Albendazole 200 mg Mebendazole 300 mg > 2 years: Albendazole 400 mg Mebendazole 600 mg	Albendazole: 1–2 years: 200 mg single dose > 2 years: 400 mg single dose Mebendazole: 1–2 years: 100 mg, 1 time per day, for 3 days > 2 years: 100 mg, 2 times per day, for 3 days
VITAMIN A	On admission if eye signs of vitamin A deficiency	All ages	< 6 months: 50,000 IU 6–11 months: 100,000 IU ≥ 12 months: 200,000 IU	1 dose on admission, day 2 and day 15
	On week 4 or discharge (and oedema free) if no eye signs of vitamin A deficiency	6–59 months	6–11 months: 100,000 IU ≥ 12 months: 200,000 IU	Delayed single dose

Folic Acid and Iron:

- Folic acid **5 mg of folic acid, 1 single dose** is given on admission.
- Iron (ferrous sulphate) **3 mg/kg/day is given after 2 days on F-100, when gaining weight.**
- Iron and folic acid should never be provided together with a malaria treatment. Malaria is treated first.
- A child 6–59 months old with SAM on an RUTF diet receives neither folic acid nor iron, as the daily dose of RUTF contains sufficient iron (10 mg/100 g or 500 kcal) and folic acid (210 µg/100 g or 500 kcal).

Zinc:

- Zinc is not given in cases of diarrhoea, as the daily dose of F-75, F-100 and RUTF contains sufficient zinc (daily dose provides 30–45 mg of elemental zinc).

Antimalarial Drugs:

- Refer to the national guidelines for first-, second- and third-line treatment and for when to give or not give presumptive malaria treatment.

Vaccination:

- Give measles vaccine upon admission if child > 6 months and has not yet received the measles vaccine.
- Update all vaccines.



Other Medicine Protocols for Children under 5 with SAM in Inpatient Care*

Name of Medication	When to Give	Prescription	Special Instructions
AMOXICILLIN-CLAVULANIC ACID**	IF SAM with medical complication (severe infection) <i>(first-line antibiotic)</i>	15–30 mg/kg, orally, 3 times per day, for 5–10 days	Give in combination with gentamicin.
GENTAMICIN**		7.5 mg/kg, IV or IM, 1 time per day, for 5–10 days	Give in combination with amoxicillin-clavulanic acid.
CHLORAMPHENICOL**	IF no improvement with first-line antibiotic within 48 hours <i>(second-line antibiotic)</i>	25 mg/kg, IV or IM, 3 times per day, for 5–10 days (4 times per day if meningitis is suspected)	Add to first-line treatment. Do not give to an infant < 2 months.
CEFTRIAXONE** (Third-generation cephalosporin)	IF no improvement with second-line antibiotic after 48 hours <i>(third-line antibiotic)</i>	100 mg/kg, IV or IM, 1 time per day, for 5–10 days	Give as a single daily dose.
TETRACYCLINE EYE OINTMENT <i>or</i> CHLORAMPHENICOL EYE DROPS	For treatment of eye infection	1 drop, 2 times per day 1 drop, 4 times per day	Wash hands before and after use; wash eyes before application; continue for 2 days after disappearance of signs of infection.
ATROPINE 1%	As part of treatment of corneal clouding and corneal ulceration	1 drop, 3 times per day: morning, afternoon and at night before sleep	May be used to relieve pain as pupil dilatation stops ciliary muscle spasms.
NYSTATIN	For treatment of candidiasis	100,000 units (1 ml) 4 times per day after food, for 7 days	Use dropper and show caregiver how to use it.
PARACETAMOL	For treatment of fever over 38.5° C	10 mg/kg	Give upon admission to all children with high fever.
BENZYL BENZOATE	For treatment of scabies	Apply over whole body; repeat without bathing on following day; wash off 24 hours later	Avoid eye contact; do not use on broken or secondary infected skin.
WHITFIELDS	For treatment of ringworm, taenia or fungal infections of the skin	Apply 2 times per day	Continue treatment until condition has completely resolved.
GENTIAN VIOLET	For treatment of minor abrasions or fungal infections of the skin	Apply on lesion	Can be repeated; continue until condition has resolved.

*Not listed: medicine protocols for treating other infections and infestations, such as tuberculosis, HIV, giardiasis; refer to the national treatment protocols.

** Antibiotic protocols for infants under 2 months (or infants with weight < 2.0 kg) with SAM and clinical infections: Give ceftriaxone 50 mg/kg, IM, 1 time per day, for 5–10 days; refer to the national IMNCI protocols.



Action Protocols in Inpatient Care

Emergency Treatment of Severe Acute Malnutrition in Children under 5

Children with SAM are **different** from other children and they need **different treatment**.

CONDITION	IMMEDIATE ACTION
<p>Shock Shock is if the child is lethargic, or unconscious and has cold hands, plus either slow capillary refill (longer than 3 seconds) or weak or fast pulse</p>	<p>If the child is in shock:</p> <ol style="list-style-type: none"> 1. Give oxygen. 2. Give sterile 10% glucose (5 ml/kg) by IV. 3. Give IV fluid at 15 ml/kg over 1 hour, using one of the following solutions in order of preference: <ul style="list-style-type: none"> • Half-strength Darrow's solution with 5% glucose (or dextrose) • Ringer's lactate with 5% glucose* • Half-normal saline with 5% glucose* <i>* If either of these is used, add sterile potassium chloride (20 mmol/L) if possible.</i> 4. Keep the child warm. 5. Measure and record pulse and respirations every 10 minutes. 6. Give antibiotics. <p>If there are signs of improvement (pulse and respiration rates fall), repeat IV 15 ml/kg for 1 more hour.</p> <p>If there are no signs of improvement after the first hour of IV fluid, assume child has septic shock. In this case:</p> <ol style="list-style-type: none"> 1. Give maintenance fluids (4 ml/kg/hour) while waiting for blood. 2. Order 10 ml/kg fresh whole blood and when blood is available, stop oral intake and IV fluids. 3. Give a diuretic. 4. Transfuse whole fresh blood (10 ml/kg slowly over 3 hours). <p>If there are signs of heart failure: give packed cells instead of whole blood.</p> <p>Monitor during rehydration for signs of over-hydration:</p> <ul style="list-style-type: none"> • Increasing pulse and respiratory rate • Increasing oedema and puffy eyelids <p>Stop if pulse increases by 25 or more beats/minute and respiratory rate by 5 or more respirations/minute.</p>
<p>Severe dehydration* Severe dehydration is assumed if there is recent history of profuse watery diarrhoea and if recent sunken eyes (recent = within 24 hours).</p> <p><i>* In case of suspected hypernatraemic dehydration, see the hypernatraemic dehydration job aid</i></p>	<p>If the child has severe dehydration, DO NOT GIVE IV FLUIDS EXCEPT IF IN SHOCK, but:</p> <ol style="list-style-type: none"> 1. Give ReSoMal 5 ml/kg every 30 minutes for 2 hours orally (or, if child is unconscious or too ill to take the ReSoMal orally, give by NGT). Do not give standard ORS to severely malnourished children 2. Measure and record pulse and respirations every 30 minutes for 2 hours. 3. Give ReSoMal 5–10 ml/kg/hour for next 4–10 hours in alternate hours with F-75. <p>STOP if signs of hydration appear (passing urine, moist tongue, making saliva, not thirsty).</p> <p>STOP if any sign of over-hydration appears (increased respiratory rate and pulse rate, engorged jugular vein, increasing oedema and puffy eyelids). Only give ReSoMal for up to 10 hours.</p> <p>Monitor during rehydration for signs of over-hydration:</p> <ul style="list-style-type: none"> • Increasing pulse and respiratory rates • Increasing oedema and puffy eyelids <p>Stop if pulse increases by 25 beats/minute and respiratory rate by 5 breaths/minute.</p>
<p>Very severe anaemia Very severe anaemia is Hb < 4 g/dl or Hb < 6 g/dl AND respiratory distress</p>	<p>If the child has very severe anaemia, a blood transfusion is required.</p> <ol style="list-style-type: none"> 1. Stop all oral intake and IV fluids during the transfusion. 2. Look for signs of congestive failure. 3. Give a diuretic. Furosemide 1 ml/kg IV at the start of the transfusion is the most appropriate choice. 4. <u>If there are no signs of congestive failure</u>, give whole fresh blood 10 ml/kg body weight slowly over 3 hours. <u>If there are signs of congestive heart failure</u>, give 5–7 ml/kg packed cells over 3 hours rather than whole blood.
<p>Hypoglycaemia Hypoglycaemia is a blood glucose < 3 mmol/L or < 54 mg/dl); assume hypoglycaemia if no testing is available</p>	<p>Perform blood glucose test (dextrostix) on admission, before giving glucose or feeding.</p> <p>If hypoglycaemia is suspected and blood glucose testing is not possible, assume that the child has hypoglycaemia and give treatment immediately without test confirmation.</p> <p>If the child is conscious:</p> <ol style="list-style-type: none"> 1. Give a bolus of 10% glucose (50 ml) or sugar solution orally (1 rounded teaspoon sugar in 3 tablespoons of water). Bolus of 10% glucose is best, but give sugar solution or F-75 rather than wait for glucose. 2. Start feeding with F-75 straightaway: Feed 2-hourly (12 feeds in 24 hours). Use feed chart to find amount to give and feed every 2–3 hours day and night. Start antibiotics. <p>If the child is unconscious, lethargic or convulsing: Give glucose IV (5 ml/kg of sterile 10% glucose), followed by 50 ml of 10% glucose or sucrose by NGT. Then give starter F-75 as above. Start antibiotics.</p>
<p>Hypothermia Hypothermia is an axillary temperature < 35.0° C or rectal temperature < 35.5° C</p>	<p>If the child is hypothermic:</p> <ol style="list-style-type: none"> 1. Feed straightaway and then every 2 hours, day and night. 2. Keep warm. 3. Use the kangaroo technique, cover with a blanket. Let mother sleep with child to keep child warm. 3. Keep room warm, no draughts. 4. Keep bedding/clothes dry. Do not bathe if very ill. 5. Avoid exposure during examinations. 6. Use a heater or incandescent lamp with caution. Do not use hot water bottles or fluorescent lamps.
<p>Emergency eye signs Corneal clouding and corneal ulceration</p>	<p>If the child has corneal clouding or corneal ulceration:</p> <ol style="list-style-type: none"> 1. Give vitamin A immediately (< 6 months 50,000 IU, 6–12 months 100,000 IU, > 12 months 200,000 IU). 2. Instil one drop atropine (1%) into affected eye(s) to relax the eye and prevent the lens from pushing out.



Danger Signs for the Management of Severe Acute Malnutrition in Children under 5 in Inpatient Care

Alert a physician if danger signs occur:

	Normal Ranges	Danger Signs	Suggests
Pulse and Respirations	<p>0–2 months:</p> <ul style="list-style-type: none"> • Pulse 80–160 beats/minute • Respirations 20–60 breaths/minute* <p>2–12 months:</p> <ul style="list-style-type: none"> • Pulse 80–160 beats/minute • Respirations 20–50 breaths/minute* <p>12–60 months (5 years):</p> <ul style="list-style-type: none"> • Pulse 80–140 • Respirations 20–40 	<p>Confirmed increase in pulse rate of ≥ 25 beats/minute along with Confirmed increase in respiratory rate of ≥ 5 breaths/minute</p>	<ul style="list-style-type: none"> • Infection <p style="text-align: center;">or</p> <ul style="list-style-type: none"> • Heart failure (possibly from over-hydration due to feeding or rehydrating too fast)
Respirations Only	<p>0–2 months:</p> <ul style="list-style-type: none"> • Respirations 20–60* <p>2–12 months:</p> <ul style="list-style-type: none"> • Respirations 20–50* <p>12–60 months (5 years):</p> <ul style="list-style-type: none"> • Respirations 20–40 	<p>0–2 months:</p> <ul style="list-style-type: none"> • Fast breathing is considered ≥ 60 breaths/minute <p>2–12 months:</p> <ul style="list-style-type: none"> • Fast breathing is considered ≥ 50 breaths/minute <p>12–60 months (5 years):</p> <ul style="list-style-type: none"> • Fast breathing is considered ≥ 40 breaths/minute 	<ul style="list-style-type: none"> • Pneumonia
Temperature	<p>Axillary temperature:</p> <ul style="list-style-type: none"> • $\geq 35^\circ\text{C}$ and $< 38.5^\circ\text{C}$ <p>Rectal temperature:</p> <ul style="list-style-type: none"> • $\geq 35.5^\circ\text{C}$ and $< 39^\circ\text{C}$ 	<ul style="list-style-type: none"> • Any sudden increase or decrease in temperature • Axillary temperature $< 35^\circ\text{C}$ or $\geq 38.5^\circ\text{C}$ or Rectal temperature $< 35.5^\circ\text{C}$ or $\geq 39^\circ\text{C}$ 	<ul style="list-style-type: none"> • Infection • Hypothermia (possibly due to infection, a missed feed or child being uncovered)

In addition to the signs listed above, watch for other danger signs, such as:

- | | | | |
|---|---|---|------------------------|
| • Anorexia (loss of appetite) | • Cyanosis (tongue/lips turning blue from lack of oxygen) | • Difficulty feeding or waking (drowsy) | • Large weight changes |
| • Change in mental state (e.g., becoming lethargic) | • Difficulty breathing | • Abdominal distension | • Increased vomiting |
| • Jaundice (yellowish skin or eyes) | | • New oedema | • Petechiae (bruising) |

* Infants under 12 months will normally breathe fast without having pneumonia. However, unless the infant's normal respiratory rate is known to be high, he/she should be assumed to have either over-hydration or pneumonia. Careful evaluation, taking into account prior fluid administration, will help differentiate the two conditions and plan appropriate treatment.



F-75 for Use with Severe Wasting and Mild and Moderate Bilateral Pitting Oedema (+ ++) in Stabilisation Phase

Look-Up Table for Amounts of F-75 Based on 100 kcal/kg/day or 130 ml/kg/day

Weight of child (kg)	Volume of F-75 per feed (ml) ^a			Daily total (130 ml/kg)	80% or daily minimum
	Every 2 hours ^b (12 feeds)	Every 3 hours ^c (8 feeds)	Every 4 hours (6 feeds)		
4.0	45	65	90	520	415
4.2	45	70	90	546	435
4.4	50	70	95	572	460
4.6	50	75	100	598	480
4.8	55	80	105	624	500
5.0	55	80	110	650	520
5.2	55	85	115	676	540
5.4	60	90	120	702	560
5.6	60	90	125	728	580
5.8	65	95	130	754	605
6.0	65	100	130	780	625
6.2	70	100	135	806	645
6.4	70	105	140	832	665
6.6	75	110	145	858	685
6.8	75	110	150	884	705
7.0	75	115	155	910	730
7.2	80	120	160	936	750
7.4	80	120	160	962	770
7.6	85	125	165	988	790
7.8	85	130	170	1014	810
8.0	90	130	175	1040	830
8.2	90	135	180	1066	855
8.4	90	140	185	1092	875
8.6	95	140	190	1118	895
8.8	95	145	195	1144	915
9.0	100	145	200	1170	935
9.2	100	150	200	1196	960
9.4	105	155	205	1222	980
9.6	105	155	210	1248	1000
9.8	110	160	215	1274	1020
10.0	110	160	220	1300	1040

^a Volumes in these columns are rounded to the nearest 5 ml. 80% is related to the minimum maintenance amount a child should receive in a day based on 100 ml/kg/day or 80 kcal/kg/day.

^b Feed every 2 hours for at least the first day. Then, when the child has little or no vomiting, modest diarrhoea (< 5 watery stools per day) and is finishing most feeds, change to feeds every 3 hours.

^c After a day on feeds every 3 hours: If no vomiting, less diarrhoea and finishing most feeds, change to feeds every 4 hours.



F-75 for Use with Severe Bilateral Pitting Oedema (+++) in Stabilisation Phase

Look-Up Table for Amounts of F-75 Based on 100 ml/kg/day

(equivalent to 100 kcal/kg/day if body weight is corrected for increased weight with severe oedema)

Weight of child with severe oedema (+++) (kg)	Volume of F-75 per feed (ml) ^a			Daily total (100 ml/kg)	80% or daily minimum
	Every 2 hours ^b (12 feeds)	Every 3 hours ^c (8 feeds)	Every 4 hours (6 feeds)		
4.0	35	50	65	400	320
4.2	35	55	70	420	335
4.4	35	55	75	440	350
4.6	40	60	75	460	370
4.8	40	60	80	480	385
5.0	40	65	85	500	400
5.2	45	65	85	520	415
5.4	45	70	90	540	430
5.6	45	70	95	560	450
5.8	50	75	95	580	465
6.0	50	75	100	600	480
6.2	50	80	105	620	495
6.4	55	80	105	640	510
6.6	55	85	110	660	530
6.8	55	85	115	680	545
7.0	60	90	115	700	560
7.2	60	90	120	720	575
7.4	60	95	125	740	590
7.6	65	95	125	760	610
7.8	65	100	130	780	625
8.0	65	100	135	800	640
8.2	70	105	135	820	655
8.4	70	105	140	840	670
8.6	70	110	145	860	690
8.8	75	110	145	880	705
9.0	75	115	150	900	720
9.2	75	115	155	920	735
9.4	80	120	155	940	750
9.6	80	120	160	960	770
9.8	80	125	165	980	785
10.0	85	125	165	1000	800
10.2	85	130	170	1020	815
10.4	85	130	175	1040	830
10.6	90	135	175	1060	850
10.8	90	135	180	1080	865
11.0	90	140	185	1100	880
11.2	95	140	185	1120	895
11.4	95	145	190	1140	910
11.6	95	145	195	1160	930
11.8	100	150	195	1180	945
12.0	100	150	200	1200	960

^a Volumes in these columns are rounded to the nearest 5 ml.

^b Feed every 2 hours for at least the first day. Then, when the child has little or no vomiting, modest diarrhoea (< 5 watery stools per day) and is finishing most feeds, change to feeds every 3 hours.

^c After a day on feeds every 3 hours: If no vomiting, less diarrhoea and finishing most feeds, change to feeds every 4 hours.



F-100 for Use in Transition Phase

Look-Up Table for Amounts of F-100 Based on 130 kcal/kg/day or 130 ml/kg/day, if No RUTF Is taken¹

Weight of child (kg)	Volume of F-100 per feed (ml) ^a		Daily total (130 ml/kg)	80% or daily minimum
	Every 3 hours (8 feeds)	Every 4 hours (6 feeds)		
4.0	65	90	520	415
4.2	70	90	546	435
4.4	70	95	572	460
4.6	75	100	598	480
4.8	80	105	624	500
5.0	80	110	650	520
5.2	85	115	676	540
5.4	90	120	702	560
5.6	90	125	728	580
5.8	95	130	754	605
6.0	100	130	780	625
6.2	100	135	806	645
6.4	105	140	832	665
6.6	110	145	858	685
6.8	110	150	884	705
7.0	115	155	910	730
7.2	120	160	936	750
7.4	120	160	962	770
7.6	125	165	988	790
7.8	130	170	1014	810
8.0	130	175	1040	830
8.2	135	180	1066	855
8.4	140	185	1092	875
8.6	140	190	1118	895
8.8	145	195	1144	915
9.0	145	200	1170	935
9.2	150	200	1196	960
9.4	155	205	1222	980
9.6	155	210	1248	1000
9.8	160	215	1274	1020
10.0	160	220	1300	1040

^a Volumes in these columns are rounded to the nearest 5 ml.

¹ If RUTF is available, gradually introduce RUTF at each feed. For RUTF amounts, see RUTF look-up tables in transition phase job aid (for RUTF 500 kcal/packet of 92 grams). If the child does not yet eat the entire daily amount of RUTF, complement the RUTF with F-100 based on 20 mg of RUTF equals about 100 ml of F-100. Or, if the child started feeding in transition on F-100, and RUTF is gradually introduced, complement the amount of F-100 with amounts of RUTF based on 100 ml of F-100 equals about 20 mg of RUTF.



Free Feeding with F-100 in Rehabilitation Phase

Look-Up Table for Amounts for Free Feeding with F-100 Based on 150–220 kcal/kg/day or 150–220 ml/kg/day, if No RUTF Is Taken²

Weight of Child (kg)	Range of volumes per feed of F-100 ^a every 4 hours (6 feeds daily)		Range of daily volumes of F-100	
	Minimum (ml)	Maximum (ml)	Minimum (150 ml/kg/day)	Maximum (220 ml/kg/day)
4.0	100	145	600	880
4.2	105	155	630	924
4.4	110	160	660	968
4.6	115	170	690	1012
4.8	120	175	720	1056
5.0	125	185	750	1100
5.2	130	190	780	1144
5.4	135	200	810	1188
5.6	140	205	840	1232
5.8	145	215	870	1276
6.0	150	220	900	1320
6.2	155	230	930	1364
6.4	160	235	960	1408
6.6	165	240	990	1452
6.8	170	250	1020	1496
7.0	175	255	1050	1540
7.2	180	265	1080	1588
7.4	185	270	1110	1628
7.6	190	280	1140	1672
7.8	195	285	1170	1716
8.0	200	295	1200	1760
8.2	205	300	1230	1804
8.4	210	310	1260	1848
8.6	215	315	1290	1892
8.8	220	325	1320	1936
9.0	225	330	1350	1980
9.2	230	335	1380	2024
9.4	235	345	1410	2068
9.6	240	350	1440	2112
9.8	245	360	1470	2156
10.0	250	365	1500	2200

^a Volumes per feed are rounded to the nearest 5 ml.

² If RUTF is available, offer RUTF at each feed. RUTF amounts: See RUTF look-up tables in rehabilitation phase job aid (for RUTF 500 kcal/packet of 92 grams). If the child does not yet eat the entire daily amount of RUTF, complement the RUTF with F-100 based on 20 mg of RUTF equals about 100 ml of F-100.



Infants under 6 Months with *Breastfeeding*: F-100-Diluted (Severe Wasting) or F-75 (Oedema)

Look-Up Table for Amounts of F-100-Diluted (Severe Wasting) or F-75 (Oedema) for

Infant's Weight (kg)	F-100-Diluted or F-75 in case of oedema (ml per feed if 12 feeds per day)	F-100-Diluted or F-75 in case of oedema (ml per feed if 8 feeds per day)
< 1.3	20	25
1.3 – 1.5	25	30
1.6 – 1.8	30	35
1.9 – 2.1	30	40
2.2 – 2.4	35	45
2.5 – 2.7	40	50
2.8 – 2.9	40	55
3.0 – 3.4	45	60
3.5 – 3.9	50	65
4.0 – 4.4	50	70



Infants under 6 Months without *Breastfeeding*:

Stabilisation Phase Look-Up Table for Amounts of F-100-Diluted (Severe Wasting) or F-75 (Oedema) Based on 100 kcal/kg/day or 130 ml/kg/day

Infant's Weight (kg)	F-100-Diluted or F-75 (ml per feed if 12 feeds per day)	F-100-Diluted or F-75 (ml per feed if 8 feeds per day)
< 1.3	20	25
1.3 – 1.5	25	30
1.6 – 1.8	30	35
1.9 – 2.1	30	40
2.2 – 2.4	35	45
2.5 – 2.7	40	50
2.8 – 2.9	40	55
3.0 – 3.4	45	60
3.5 – 3.9	50	65
4.0 – 4.4	50	70

Transition Phase Look-Up Table for Amounts of F-100-Diluted Based on 110–130 kcal/kg/day or 150–170 ml/kg/day

Infant's Weight (kg)	F-100-Diluted (ml per feed if 8 feeds per day)
< 1.6	45
1.6 – 1.8	53
1.9 – 2.1	60
2.2 – 2.4	68
2.5 – 2.7	75
2.8 – 2.9	83
3.0 – 3.4	90
3.5 – 3.9	96
4.0 – 4.4	105

Rehabilitation Phase Look-Up Table for Amounts of F-100-Diluted Based on 150 kcal/kg/day or 200 ml/kg/day

Infant's Weight (kg)	F-100-Diluted (ml per feed if 6–8 feeds per day)
< 1.6	60
1.6 – 1.8	70
1.9 – 2.1	80
2.2 – 2.4	90
2.5 – 2.7	100
2.8 – 2.9	110
3.0 – 3.4	120
3.5 – 3.9	130
4.0 – 4.4	140



RUTF Appetite Test for Children 6–59 Months with SAM in Inpatient Care

The appetite test is conducted as soon as the child's condition has stabilised and the appetite has returned.

- Explain to the mother/caregiver:
 - What is ready-to-use therapeutic food (RUTF)
 - The transition of a therapeutic milk diet to an RUTF diet as part of the treatment
 - The purpose of the test and the procedure
- Advise the mother/caregiver to:
 - Wash her hands before giving the RUTF
 - Sit with her child in her lap and gently offer the RUTF
 - Encourage the child to eat the RUTF without force feeding
 - Offer plenty of clean water, to drink from a cup, when her child is eating the RUTF
- Observe the child eating the RUTF in 30 minutes and decide if the child passes or fails the test.

Pass Appetite Test	Fail Appetite Test
The child eats at least one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.	The child does NOT eat one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.

Note: If necessary, arrange a quiet corner where the child and mother/caregiver can take their time to get accustomed to eating the RUTF. Usually the child eats the RUTF in 30 minutes. A child who fails the appetite test will be offered RUTF at each feed before therapeutic milk is provided.



Use of RUTF in Children 6–59 months with SAM in Inpatient Care

Amounts of 92 g Packets of RUTF Containing 500 kcal to Give to a Child per Day

Child's weight (kg)	Transition Phase	Rehabilitation Phase
	150 kcal/kg/day	200 kcal/kg/day
	<i>Packets per Day (92 g Packets Containing 500 kcal)</i>	<i>Packets per Day (92 g Packets Containing 500 kcal)</i>
4.0 – 4.9	1.5	2.0
5.0 – 6.9	2.1	2.5
7.0 – 8.4	2.5	3.0
8.5 – 9.4	2.8	3.5
9.5 – 10.4	3.1	4.0
10.5 – 11.9	3.6	4.5
≥ 12.0	4.0	5.0

RUTF Key Messages in Inpatient Care

1. Do not share RUTF. RUTF is a food and medicine for very thin and swollen children only.
2. Give small, regular meals of RUTF and encourage the child to eat often (first 8 meals per day, later 5–6 meals per day). Your child should have ___ packets per day. Thin and swollen children often don't like to eat.
3. Continue to breastfeed regularly (if applicable). Offer breast milk first before every RUTF feed.
4. Do not give other food. RUTF is the only food apart from breast milk that thin and swollen children need to recover during their time in Inpatient Care.
5. Offer the child plenty of clean water to drink while he/she is eating RUTF. Children will need more water than normal.
6. Wash the child's hands and face with soap before feeding if possible.
7. Keep food clean and covered.
8. Keep the child covered and warm. Thin and swollen children get cold quickly. Do not stop feeding when a child has diarrhoea. Continue to feed RUTF and (if applicable) breast milk.



Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months

Weight on admission* (kg)	Target weight: 15% weight gain	Weight on admission* (kg)	Target weight: 15% weight gain
4.1	4.7	8.1	9.3
4.2	4.8	8.2	9.4
4.3	4.9	8.3	9.5
4.4	5.1	8.4	9.7
4.5	5.2	8.5	9.8
4.6	5.3	8.6	9.9
4.7	5.4	8.7	10.0
4.8	5.5	8.8	10.1
4.9	5.6	8.9	10.2
5.0	5.8	9.0	10.4
5.1	5.9	9.1	10.5
5.2	6.0	9.2	10.6
5.3	6.1	9.3	10.7
5.4	6.2	9.4	10.8
5.5	6.3	9.5	10.9
5.6	6.4	9.6	11.0
5.7	6.6	9.7	11.2
5.8	6.7	9.8	11.3
5.9	6.8	9.9	11.4
6.0	6.9	10.0	11.5
6.1	7.0	10.1	11.6
6.2	7.1	10.2	11.7
6.3	7.2	10.3	11.8
6.4	7.4	10.4	12.0
6.5	7.5	10.5	12.1
6.6	7.6	10.6	12.2
6.7	7.7	10.7	12.3
6.8	7.8	10.8	12.4
6.9	7.9	10.9	12.5
7.0	8.0	11.0	12.7
7.1	8.2	11.1	12.8
7.2	8.3	11.2	12.9
7.3	8.4	11.3	13.0
7.4	8.5	11.4	13.1
7.5	8.6	11.5	13.2
7.6	8.7	11.6	13.3
7.7	8.9	11.7	13.5
7.8	9.0	11.8	13.6
7.9	9.1	11.9	13.7
8.0	9.2	12.0	13.8

*weight free of oedema



Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Inpatient Care	Outpatient Care
ENTRY CATEGORIES	
<p>New admission: New case of child 6–59 months who meets the admission criteria – including <i>relapse</i> after cure (within 2 months)</p> <p>Other age group new admissions: New case of infant, child, adolescent, adult (< 6 months or ≥ 5 years) who is admitted for treatment of SAM in Inpatient Care</p> <p>Referral from Outpatient Care: Condition of child deteriorated in Outpatient Care (according to action protocol) and child needs Inpatient Care</p> <p style="text-align: center;">Or</p> <p>Returned after defaulting (within 2 months) (or <i>Moved</i> from other Inpatient Care site)*</p>	<p>New admission: New case of child 6–59 months who meets the admission criteria – including <i>relapse</i> after cure (within 2 months)</p> <p>Other new admissions: New case who does not meet preset admission criteria but needs treatment of SAM in Outpatient Care (special case, based on decision of supervisor)</p> <p>Referral from Inpatient Care: Child 6–59 months referred from Inpatient Care after stabilisation and continues treatment in Outpatient Care</p> <p style="text-align: center;">Or</p> <p>Returned after defaulting (within 2 months) (or <i>Moved</i> from other Outpatient Care site)*</p>
EXIT CATEGORIES	
<p>Referred to Outpatient Care: Child’s condition has stabilised; child’s appetite has returned; the medical complication is resolving; and child is referred to Outpatient Care to continue treatment</p> <p>Discharged cured: Child 6–59 months who remained in Inpatient Care until full recovery and meets discharge criteria, i.e., special cases that were not referred to Outpatient Care earlier</p> <p>Discharged died: Child 6–59 months who dies while in Inpatient Care</p> <p>Discharged defaulted: Child 6–59 months who is absent for 2 days</p> <p>Discharged non-recovered: Child 6–59 months who remained in Inpatient Care and does not reach discharge criteria after 2 months in treatment</p>	<p>Referred to Inpatient Care: Child’s condition has deteriorated or child is not responding to treatment (per the action protocol), and child is referred to Inpatient Care</p> <p>Discharged cured: Child 6–59 months who meets discharge criteria</p> <p>Discharged died: Child 6–59 months who dies while in Outpatient Care</p> <p>Discharged defaulted: Child 6–59 months who is absent for 2 consecutive weeks</p> <p>Discharged non-recovered: Child 6–59 months who does not reach discharge criteria after 4 months in treatment</p>

* Movement between sites is likely in mobile populations or during emergencies.



INPATIENT MANAGEMENT RECORD

CHILD UNDER 5 WITH SEVERE ACUTE MALNUTRITION (SAM)

Health Facility:

Date of admission:**Admitting physician or paramedic:**

Unit no.:**Registration no.:**

Child's name:**Date of birth or age:****Sex: M/F**

Mother's name:**Father's name:**

Other caregiver's name (if not mother or father):**Relationship:**

Head of household:**Mobile telephone number:**

Address (including description of how to get to and recognise the house):

FAMILY INFORMATION

Father's Age:**Education (circle one):**

Illiterate/Primary-Basic/Intermediate-Secondary/Tertiary

Occupation:

Mother's Age:**Education (circle one):**

Illiterate/Primary-Basic/Intermediate-Secondary/Tertiary

Occupation:**No. of pregnancies:****No. of living children:****No. of live births:****< 5 years:****≥ 5 years:**

Family planning: Yes / No *If yes, specify:*

Housing (circle one): Owned / Rented**No. of rooms:**

Water supply (circle one): Tap water / Protected water source / Unprotected water source

MEDICAL HISTORY

Complaints (number to list order of importance):**Duration or age at which complaint started:**

Appetite (circle one): Hungry / Normal / Poor / No appetite**Vomiting:** Yes / No

Diarrhoea: Yes / No *If yes, number of days:***Stool appearance (circle one):** Bloody / Muroid / Watery / Soft / Solid / Other (specify):

Recent sunken eyes: Yes / No**Passing urine:** Yes / No

Intestinal parasites: Yes / No**Fever:** Yes / No

Shortness of breath: Yes / No**Cough:** Yes / No

Skin changes: Yes / No *If yes, describe:*

Hair changes: Yes / No *If yes, describe:*

Weight loss: Yes / No**Night blindness:** Yes / No

Swelling lower limbs: Yes / No

DIETARY HISTORY

Is the child being breastfed? Yes / No

If no, what type of milk has been offered (circle one): Goat / Cow / Formula / Other (specify):

If yes (circle one): Exclusive / Mixed

Has the child been breastfed before? Yes/No

Age at which breastfeeding stopped:

Duration of exclusive breastfeeding (in months):

Age at which semisolid feeds started:

Usual diet before current illness:

Type of food or fluid given	Age at which started (months)	Age at which stopped (months)	Amount per feed (g or ml)	Frequency of feeds/day
Infant formula or animal milk (specify)				
Cereals (specify)				
Other staple foods* (specify)				
Water, herbal teas, or other drinks (specify)				
Fresh fruit/fruit juice				
Orange and dark green vegetables				
Other vegetables and pulses				
Fish, meat, or eggs				
Other foods (specify)				

* Includes rice, corn, cassava, sorghum, potatoes, millet, and noodles.

Diet since current illness began (describe any changes):

Diet during past 24 hours (record all intake):

IMMUNISATION HISTORY

Immunisation card available?: Yes / No

Circle vaccinations already given:

Vaccination	At Birth	First	Second	Third
BCG*	At birth	—	—	—
Polio	At birth	At 6 weeks	At 10 weeks	At 14 weeks
Penta**	—	At 6 weeks	At 10 weeks	At 14 weeks
Rotavirus	—	At 6 weeks	At 10 weeks	—
Measles	—	At 9 months	—	—

* BCG: bacille Calmette-Guérin vaccine

** Penta: diphtheria, tetanus, pertussis, hepatitis B and haemophilus influenza vaccine

PHYSICAL EXAMINATION

General condition (circle one): Alert / Lethargic / Unconscious

Pulse rate:

Respiratory rate:

Capillary refill time (sec):

Axillary temperature (° C):

MUAC (mm):

Presence of oedema (circle one): 0 + ++ +++

Weight (kg):

Height/Length (cm):

WFH z-score:

Head and Neck:

Vitamin deficiency (signs of, e.g., corneal clouding/ulceration, angular stomatitis):

Cardiovascular system (signs of heart failure):

Chest (signs of respiratory distress):

Abdomen (signs of hepatomegaly, splenomegaly, or other masses):

Musculoskeletal system:

Skin:

INITIAL MANAGEMENT Comments on pre-referral and/or emergency treatment already given:

<p>SIGNS OF SAM Severe wasting? Yes No</p> <p>Bilateral Pitting Oedema? 0 + ++ +++</p> <p>Dermatosis? 0 + ++ +++ (raw skin, fissures)</p> <p>Weight (kg): _____ Height / length (cm): _____</p> <p>WFH z-score: _____ MUAC (mm): _____</p> <p>TEMPERATURE: °C axillary / rectal If axillary < 35° C or rectal < 35.5° C, actively warm child. Check temperature every 30 minutes.</p> <p>BLOOD GLUCOSE (mmol/L): _____ <i>If no test available, treat for hypoglycaemia.</i> <i>If < 3 mmol/L and alert, give 50 ml bolus of 10% glucose or sucrose (oral or NG): Yes No</i> <i>If < 3 mmol/L and lethargic, unconscious or convulsing, give sterile 10% glucose IV:</i> 5 ml x _____ kg (child's weight) = _____ ml. Then give 50 ml bolus NG. Time glucose given: Oral NG IV</p> <p>HAEMOGLOBIN (Hb) (g/dl): _____ or Packed Cell Vol (PCV): _____ Blood type: _____ If Hb < 4 g/dl (or Hb 4–6 g/dl AND respiratory distress), transfuse 10 ml/kg whole fresh blood (or 5–7 ml/kg packed cells) slowly over 3 hours. Amount: _____ Time started: _____ Ended: _____</p> <p>EYE SIGNS None Left Right Bitot's spots Pus or Inflammation Corneal clouding Corneal ulceration If ulceration, give vitamin A and atropine immediately. Record on Daily Care page. If no ulceration, give vitamin A preventive dose on week 4 or upon discharge.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">ORAL DOSES VITAMIN A</td> <td style="width:20%;">< 6 months*</td> <td style="width:60%;">50,000 IU</td> </tr> <tr> <td>*Treatment dose on days 1, 2, 15</td> <td>6–12 months* **</td> <td>100,000 IU</td> </tr> <tr> <td>**Preventive dose on week 4 or upon discharge</td> <td>> 12 months* **</td> <td>200,000 IU</td> </tr> </table> <p>MEASLES Yes No Vaccination upon admission: Yes No (Record on Outcome page)</p> <p>FEEDING <i>Begin feeding with F-75 as soon as possible.</i> <i>If child is rehydrated, reweigh before determining amount to feed. New weight: _____ kg.</i> Amount for 2-hourly feedings: _____ ml F-75* Time first fed: _____ <i>* If hypoglycaemic, feed ¼ of this amount every half hour for first 2 hours; continue until blood glucose reaches 3 mmol/L.</i> Record all feeds on 24-Hour Food Intake Chart page.</p>	ORAL DOSES VITAMIN A	< 6 months*	50,000 IU	*Treatment dose on days 1, 2, 15	6–12 months* **	100,000 IU	**Preventive dose on week 4 or upon discharge	> 12 months* **	200,000 IU	<p>SIGNS OF SHOCK None Lethargic/unconscious Cold hands Slow capillary refill (> 3 seconds) Weak or fast pulse</p> <p><i>If lethargic or unconscious*, plus cold hands, plus either slow capillary refill or weak or fast pulse, give oxygen.</i> <i>Give IV glucose as described under Blood Glucose (left).</i> <i>Then give IV fluids: Amount IV fluids per hour: 15 ml x _____ kg (child's wt) = _____ ml</i></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;"></td> <td style="width:15%;">Start:</td> <td style="width:40%;">Monitor every 10 minutes</td> <td style="width:10%;">**2nd hr</td> <td style="width:30%;">Monitor every 10 minutes</td> </tr> <tr> <td>Time</td> <td></td> <td></td> <td>**</td> <td></td> </tr> <tr> <td>Resp. rate</td> <td></td> <td></td> <td>**</td> <td></td> </tr> <tr> <td>Pulse rate</td> <td></td> <td></td> <td>**</td> <td></td> </tr> </table> <p><i>* In case of suspected hypernatraemic dehydration, see Operational Guide or CMAM Manual Appendix, page 183.</i> <i>**If respiratory and pulse rates are slower after 1 hour, repeat same amount IV fluids for second hour; then alternate ReSoMal and F-75 for up to 10 hours as in right section of chart below. If no improvement on IV fluids, transfuse whole fresh blood. (See 'Haemoglobin' section at left.) Give maintenance IV fluids (4 ml/kg/hour) while waiting for blood.</i></p> <p>DIARRHOEA</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%; vertical-align: top;"> Watery diarrhoea? Yes No Blood in stool? Yes No Vomiting? Yes No Number of days with diarrhoea: _____ </td> <td style="width:40%; vertical-align: top;"> <i>If diarrhoea, circle signs present:</i> Skin pinch goes back slowly Lethargic Thirsty Restless/irritable Dry mouth/tongue No tears Sunken eyes </td> </tr> </table> <p><i>If diarrhoea and/or vomiting, give ReSoMal orally*. Every 30 minutes for first 2 hours, monitor and give:*</i> 5 ml x _____ kg (child's wt) = _____ ml ReSoMal</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Time</td> <td style="width:15%;">Start</td> <td style="width:40%;"></td> <td style="width:10%;"></td> <td style="width:30%;"></td> </tr> <tr> <td>Resp. rate</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pulse rate</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p><i>For up to 10 hours, give ReSoMal and F-75 orally* in alternate hours. Monitor every hour. Amount of ReSoMal to offer**:</i> 5 to 10 ml x _____ kg (child's wt) = _____ to _____ ml ReSoMal</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">Time</td> <td style="width:15%;">Start</td> <td style="width:40%;"></td> <td style="width:10%;"></td> <td style="width:30%;"></td> </tr> <tr> <td>Passed urine? Y N</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number stools</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number vomits</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hydration signs</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Amount taken (ml)</td> <td></td> <td></td> <td>F-75</td> <td>F-75</td> </tr> </table> <p><i>* Give ReSoMal orally (or, if child is unconscious or too ill to take the ReSoMal orally, give by NGT).</i> <i>** Stop ReSoMal if signs of hydration: Passing urine, moist tongue, making saliva, not thirsty.</i> <i>Stop ReSoMal if any sign of over-hydration: Increasing pulse and resp. rates, engorging jugular veins, increasing oedema, puffing of eyelids.</i></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:40%;">ANTIBIOTICS (Drug/Route)</td> <td style="width:40%;">Dose/Frequency/Duration</td> <td style="width:20%;">Time of 1st Dose</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:40%;">MALARIA TEST (Type/Date/Outcome):</td> <td style="width:40%;">Antimalarial: Dose/Frequency/Duration</td> <td style="width:20%;">Time of 1st Dose</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> <p>HIV TEST (Type/Date/Outcome): _____ If + HIV test, give cotrimoxazole: _____</p>		Start:	Monitor every 10 minutes	**2 nd hr	Monitor every 10 minutes	Time			**		Resp. rate			**		Pulse rate			**		Watery diarrhoea? Yes No Blood in stool? Yes No Vomiting? Yes No Number of days with diarrhoea: _____	<i>If diarrhoea, circle signs present:</i> Skin pinch goes back slowly Lethargic Thirsty Restless/irritable Dry mouth/tongue No tears Sunken eyes	Time	Start				Resp. rate					Pulse rate					Time	Start				Passed urine? Y N					Number stools					Number vomits					Hydration signs					Amount taken (ml)			F-75	F-75	ANTIBIOTICS (Drug/Route)	Dose/Frequency/Duration	Time of 1st Dose							MALARIA TEST (Type/Date/Outcome):	Antimalarial: Dose/Frequency/Duration	Time of 1st Dose			
ORAL DOSES VITAMIN A	< 6 months*	50,000 IU																																																																																										
Treatment dose on days 1, 2, 15	6–12 months **	100,000 IU																																																																																										
**Preventive dose on week 4 or upon discharge	> 12 months* **	200,000 IU																																																																																										
	Start:	Monitor every 10 minutes	**2 nd hr	Monitor every 10 minutes																																																																																								
Time			**																																																																																									
Resp. rate			**																																																																																									
Pulse rate			**																																																																																									
Watery diarrhoea? Yes No Blood in stool? Yes No Vomiting? Yes No Number of days with diarrhoea: _____	<i>If diarrhoea, circle signs present:</i> Skin pinch goes back slowly Lethargic Thirsty Restless/irritable Dry mouth/tongue No tears Sunken eyes																																																																																											
Time	Start																																																																																											
Resp. rate																																																																																												
Pulse rate																																																																																												
Time	Start																																																																																											
Passed urine? Y N																																																																																												
Number stools																																																																																												
Number vomits																																																																																												
Hydration signs																																																																																												
Amount taken (ml)			F-75	F-75																																																																																								
ANTIBIOTICS (Drug/Route)	Dose/Frequency/Duration	Time of 1st Dose																																																																																										
MALARIA TEST (Type/Date/Outcome):	Antimalarial: Dose/Frequency/Duration	Time of 1st Dose																																																																																										

WEIGHT CHART

Weight on **admission**: kg

MUAC on **admission**: mm

Height/length on **admission**: cm

Bilateral pitting oedema on **admission**:
0 + ++ +++

Desired weight at discharge based on 15% weight change:

kg

Desired weight at discharge based on weight for height -1 z-score:

kg

Weight at **referral** to Outpatient Care:

kg

MUAC at **referral** to Outpatient Care:

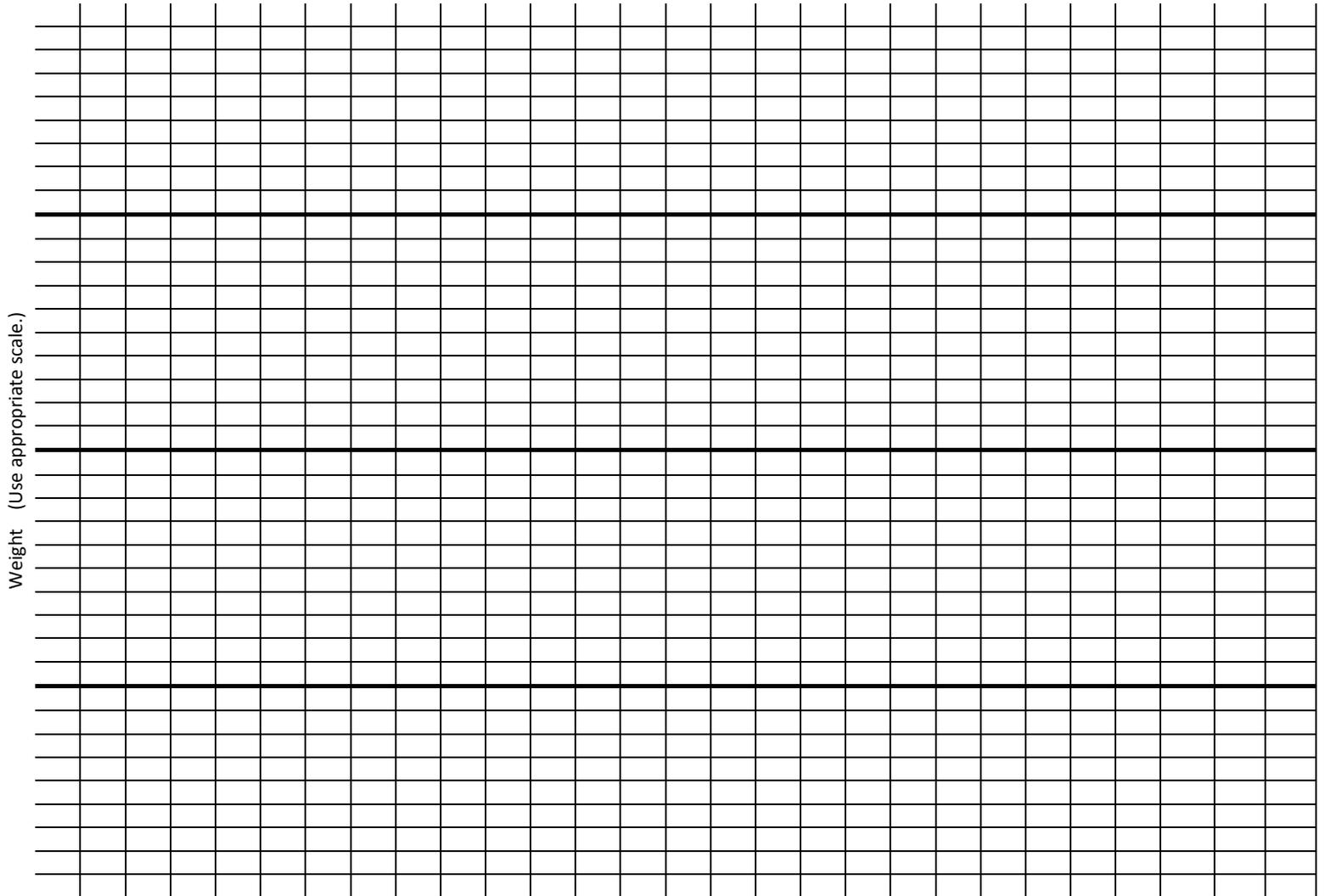
mm

Weight at **discharge** if treatment until full recovery in Inpatient Care:

kg

MUAC at **discharge** if treatment until full recovery in Inpatient Care:

mm



DAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28



Referral Form

[Integrated Management of Neonatal and Childhood Illness (IMNCI)]

Refer to Health Facility:

Date:

Time:

Name:

Age:

Weight:

Temperature:

Reasons for referral:

Other classifications:

Treatments given before referral:

Vaccinations:

Dose of vitamin A:

Name of worker:

Location:

Signature:



CMAM Site Tally Sheet for Children 6–59 Months with SAM

Community, Administrative Unit, Locality, State						
SITE (circle one)	Outpatient Care	Inpatient Care				
MONTH						
Date of week						TOTAL MONTH
TOTAL start of week (A)						Start of Month:
New Cases SAM Children 6–59 months (Oedema) (B1)						
New Cases SAM Children 6–59 months (MUAC < 115 mm) (B2)						
New Cases SAM Children 6–59 months (WFH < -3 z-score) (B3)						
New Cases SAM other age groups: infants < 6 m, children ≥ 5 y, adolescents, adults* (B4)	[]	[]	[]	[]	[]	[]
TOTAL NEW ADMISSIONS (B) (B=B1+B2+B3)						
Old Cases SAM: Returned defaulters (Children 6–59 months) (C1)						
Old Cases SAM: Referred from Outpatient Care or Inpatient Care (Children 6–59 months) (C2)						
TOTAL ENTRIES (Children 6–59 months) (D) (D=B1+B2+B3+C1+C2)						
Discharged Cured (Children 6–59 months) (E1)						
Discharged Died (Children 6–59 months) (E2)						
Discharged Defaulted (Children 6–59 months) (E3)						
Discharged Non-Recovered (Children 6–59 months) (E4)						
TOTAL DISCHARGES (Children 6–59 months) (E) (E=E1+E2+E3+E4)						
Referred to Outpatient Care or Inpatient Care (Children 6–59 months) (F1)						
Referred to higher care level (Children 6–59 months) (F2)						
TOTAL EXITS (Children 6–59 months) (G) (G=E+F1+F2)						
Total end of week (Children 6–59 months) (H) (H=A+D-G)						End of Month:
SEX OF NEW CASES ADMITTED (Children 6–59 months)	MALE					
	FEMALE					

*Infants < 6 months, children ≥ 5 years, adolescents and adults (B4) are tallied and monitored separately, for planning purposes.



Monthly Site Report for CMAM for Children 6–59 Months

SITE				IMPLEMENTED BY	FMOH Other: _____																																															
Administrative Unit				MONTH / YEAR																																																
Locality				TYPE (circle one)	<i>Outpatient Care</i>	<i>Inpatient Care</i>																																														
State				ESTIMATED TARGET POPULATION < 5 y with SAM*	(WFH < -3 z-score)	(MUAC < 115 mm)	(Oedema)																																													
TOTAL at START of month (A)	New cases with SAM				TOTAL NEW ADMISSIONS (B) (B=B1+B2+B3)	Old cases with SAM		TOTAL ENTRIES (D) (D=B+C1+C2)	Discharged children 6–59 months				TOTAL DISCHARGED (E) (E=E1+E2+E3+E4)	Referred cases		TOTAL EXITS (G) (G=E+F1+f2)	TOTAL at END of month (H) (H=A+D-G)																																			
	Children 6–59 m		Other age groups (< 6 m, ≥ 5 y) (B4)			Returned defaulter (C1)	Referred from Inpatient Care/ Outpatient Care or higher care level (C2)		Discharged Cured (E1)	Discharged Died (E2)	Discharged Defaulted (E3)	Discharged Non-Recovered (E4)		Referred to Inpatient Care/ Outpatient Care (F1)	Referred to higher care level (F2)																																					
	Oedema (B1)	MUAC < 115 mm (B2)	WFH < -3 z-score (B3)																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="8" style="text-align: center;">Children 6–59 months</td> <td style="text-align: center;">%</td> <td style="text-align: center;">%</td> <td style="text-align: center;">%</td> <td style="text-align: center;">%</td> </tr> <tr> <td colspan="8"></td> <td style="text-align: center;">(E1/E * 100) Cure rate</td> <td style="text-align: center;">(E2/E * 100) Death rate</td> <td style="text-align: center;">(E3/E * 100) Default rate</td> <td style="text-align: center;">(E4/E * 100) Non-recovery rate</td> </tr> <tr> <td colspan="8" style="text-align: center;">TARGETS Sphere minimum standards for overall CMAM</td> <td style="text-align: center;">> 75%</td> <td style="text-align: center;">< 10%</td> <td style="text-align: center;">< 15%</td> <td></td> </tr> </table>																	Children 6–59 months								%	%	%	%									(E1/E * 100) Cure rate	(E2/E * 100) Death rate	(E3/E * 100) Default rate	(E4/E * 100) Non-recovery rate	TARGETS Sphere minimum standards for overall CMAM								> 75%	< 10%	< 15%	
Children 6–59 months								%	%	%	%																																									
								(E1/E * 100) Cure rate	(E2/E * 100) Death rate	(E3/E * 100) Default rate	(E4/E * 100) Non-recovery rate																																									
TARGETS Sphere minimum standards for overall CMAM								> 75%	< 10%	< 15%																																										

C1: Returned defaulter = defaulted while in treatment and returned within 2 months to continue treatment
E1: Discharged Cured = met discharge criteria
E2: Discharged Died = died while in treatment
E3: Discharged Defaulted = absent for 2 consecutive weeks in Outpatient Care/2 days in Inpatient Care
E4: Discharged Non-recovered = did not meet discharge criteria after 4 months in Outpatient Care/2 months in Inpatient Care

SEX OF NEW ADMISSIONS children 6–59 months	MALE	
	FEMALE	

* Estimated target population under 5 = 20%, using the 2008 Census data; estimated target population under 5 with SAM, expressed in numbers (WFH < -3 z score or MUAC < 115 mm, and bilateral pitting oedema), based on latest survey data or admission data.

Note: Infants < 6 months, children ≥ 5 years, adolescents and adults (B4) could be tallied and monitored separately, for planning purposes.



CMAM SAM Reporting Template

Author:		Date:	
Reporting Period:			
Locality/State:			
Population Estimate:			
Starting Date of CMAM Services:			
Number of Outpatient Care sites		Number of Inpatient Care sites	
Number of communities involved in community outreach		Number of community outreach workers trained and active	
KEY INDICATORS CHILDREN 6–59 MONTHS	Number of new admissions	Number under treatment	
	Percentage cured	Percentage died	
	Percentage defaulted	Percentage non-recovered	
	List major reasons for defaulting (Circle: assessed or estimated):	List major reasons for non-recovery (Circle: assessed or estimated):	
KEY INDICATORS: OTHER AGE GROUPS	Number of admissions infants under 6 months	Number of discharges infants under 6 months	
	Number of admissions children 5 years and older, adolescents, adults	Number of discharges children 5 years and older, adolescents, adults	
Summary on Performance and Key Issues Encountered:			
Action for Improvement and/or Resolving Encountered Problems:			
Brief Summary of Achievements:			
Success Stories and/or Lessons Learned:			

Add figures (automatically generated in the database):

- Figure (graph) with trends of key performance and output indicators:
 - Bars with total admissions, total discharges (in y axis, number of children)
 - Line with total under treatment (in y axis, number of children) (x axis, months [or weeks during emergencies])
- Figure (pie chart) with distribution of discharge categories (cured, died, defaulted, non-recovered)

Add figures whenever the additional information is available (optional):

- Figure (pie chart) with distribution of admissions per criteria (oedema, MUAC < 115 mm, WFH < -3 z-score)
- Figure (bar graph) for monthly average length of stay and average weight gain per category of admission criterion



Supervisor's Checklist for Inpatient Care

Health Facility: _____

Date: _____

Name Supervisor: _____

Adapted from WHO, 2002. *Training Course on the Management of Severe Malnutrition*. Geneva: WHO.

MONITORING	OBSERVE:	YES	NO	COMMENTS
FOOD PREPARATIONS	Are ingredients for the recipe available?			
	Is the correct recipe used for the ingredients that are available?			
	Are ingredients stored appropriately and discarded at appropriate times?			
	Are containers and utensils kept clean?			
	Do kitchen staff (and those preparing feeds) wash their hands with soap before preparing food?			
	Are the recipes for F-75 and F-100 followed exactly? (If changes are made due to lack of ingredients, are these changes appropriate?)			
	Are measurements made exactly with proper measuring utensils (e.g., correct scoops)?			
	Are ingredients thoroughly mixed (and cooked, if necessary)?			
	Is the appropriate amount of oil remixed in (i.e., not left stuck in the measuring container)?			
	Is CMV mix added correctly?			
	Is correct amount of water added to make up a litre of formula with the recipe? (Staff should <i>not</i> add a litre of cooled boiled water, but just enough to make a litre of formula.) Is correct amount of water added to make formula with the commercial packages? (Staff should add the package to one or two litres of cooled boiled water. Staff should verify the instructions on the package.)			
	Is food served at an appropriate temperature?			
	Is the food consistently mixed when served (i.e., oil is mixed in, not separated)?			
	Are correct amounts put in the dish for each child?			
	Is leftover prepared food discarded promptly?			
Other				
WARD PROCEDURES: FEEDING	Are correct feeds served in correct amounts?			
	Are feeds given at the prescribed times, even on nights and weekends?			
	Are children held and encouraged to eat (never left alone to feed)?			
	Are children fed with a cup and saucer (never a bottle)?			
	Is food intake (and any vomiting/diarrhoea) recorded correctly after each feed?			
	Are leftovers recorded accurately?			
	Are amounts of F-75 kept the same throughout the initial phase, even if weight is lost?			
	Is RUTF appetite tested as soon as appetite returns and medical complications are resolving, and is RUTF offered in the transition phase?			
	Is RUTF administered correctly?			
	Is drinking water provided with RUTF intake?			
Is child consuming 75% or more of the required daily intake of RUTF before referral to Outpatient Care?				

MONITORING	OBSERVE:	YES	NO	COMMENTS
	For cases who remain in Inpatient Care on F-100 in rehabilitation phase, are amounts of F-100 given freely and increased as the child gains weight?			
WARD PROCEDURES: WARMING	Is the room kept between 25° C and 30° C (to the extent possible)?			
	Are blankets provided and children kept covered at night?			
	Are safe measures used for re-warming children?			
	Are temperatures taken and recorded correctly?			
WARD PROCEDURES: WEIGHING	Are scales functioning correctly?			
	Are scales standardised weekly?			
	Are children weighed at about the same time each day, 1 hour before or after a feed (to the extent possible)?			
	Do staff adjust the scale to zero before weighing?			
	Are children consistently weighed without clothes?			
	Do staff correctly read weight to the correct degree of precision?			
	Do staff immediately record weights on the child's Inpatient Management Record?			
	Are weights correctly plotted on the Weight Chart?			
WARD PROCEDURES: GIVING ANTIBIOTICS AND OTHER MEDICATIONS AND SUPPLEMENTS	Are antibiotics given as prescribed (correct dose[s] at correct time[s])?			
	When antibiotics are given, do staff immediately make a notation on the Inpatient Management Record?			
	Is folic acid given daily and recorded on the Inpatient Management Record?			
	Is vitamin A given according to schedule?			
	For children who are on F-100 for 2 days, is the correct dose of iron given daily and recorded on the Inpatient Management Record?			
WARD PROCEDURES: WARD ENVIRONMENT	Are surroundings welcoming and cheerful?			
	Are mothers/caregivers offered a place to sit and sleep?			
	Are mothers/caregivers taught/encouraged to be involved in care?			
	Are staff consistently courteous?			
	As children recover, are they stimulated and encouraged to move and play?			
HYGIENE: HAND-WASHING	Are there working hand-washing facilities in the ward?			
	Do staff consistently wash their hands thoroughly with soap?			
	Are their nails clean?			
	Do they wash their hands before handling food?			
	Do they wash their hands between patient visits?			
HYGIENE: MOTHERS'/ CAREGIVERS' CLEANLINESS	Do mothers/caregivers have a place to bathe, and do they use it?			
	Do mothers/caregivers wash their hands with soap after using the toilet or changing nappies (diapers)?			
	Do mothers/caregivers wash their hands before feeding children?			

MONITORING	OBSERVE:	YES	NO	COMMENTS
HYGIENE: BEDDING AND LAUNDRY	Is bedding changed every day or when soiled/wet?			
	Are nappies, soiled towels and rags, etc. stored in bag, then washed or disposed of properly?			
	Is there a place for mothers/caregivers to do laundry?			
	Is laundry done in hot water?			
HYGIENE: GENERAL MAINTENANCE	Are floors swept?			
	Is trash disposed of properly?			
	Is the ward kept as free as possible of insects and rodents?			
HYGIENE: FOOD STORAGE	Are ingredients and food kept covered and stored at the proper temperature?			
	Are leftovers discarded?			
	Is all therapeutic food stored in a hygienic manner?			
HYGIENE: DISHWASHING	Are dishes washed after each meal?			
	Are they washed in hot water with soap?			
HYGIENE: TOYS	Are toys washable?			
	Are toys washed regularly, and after each child uses them?			



Inpatient Care Quality Improvement Checklist

Step (Hospital)	Current Status (What do we know)	Changes to be introduced (New things we must do)	Who will organise changes?		New resources needed	Who will organise resources?	
			Who?	When?		Who?	When?
<p>Malnourished children need care that is <u>different</u> from the care provided to other children.</p> <p>Prioritise severe wasting or oedema in the outpatient department (OPD) queue.</p> <p>Have a separate room or corner for SAM.</p>							
Step 1. Prevent or treat hypoglycaemia							
<p>PREVENT</p> <p>Admit quickly from OPD to the ward.</p> <p>Feed straightaway.</p> <p>Feed every 2 hours day and night. Feed on time.</p> <p>Staff know warning signs: - low temperature - lethargy, limpness, loss of consciousness, drowsy - retraction of eyelids</p>							
<p>TREAT</p> <p><u>If hypoglycaemic,</u> - give bolus 10% glucose or sucrose solution. - feed straightaway</p> <p><u>If unconscious,</u> - give bolus 10% sterile glucose IV</p>							
Step 2. Prevent or treat hypothermia							
<p>PREVENT</p> <p>Feed straightaway</p> <p>Feed every 2 hours day and night. Feed on time.</p> <p>Keep child warm: Use kangaroo technique; cover with a blanket</p> <p>Keep room warm: use heater, exclude draughts</p> <p>Change wet clothes and bedding; Have 24-hour linen supply</p>							
<p>TREAT</p> <p>Feed straightaway .</p> <p>Re-warm with heater or lamp or kangaroo method.</p> <p>Feed 2-hourly.</p>							

Step (Hospital)	Current Status (What do we know)	Changes to be introduced (New things we must do)	Who will organise changes?		New resources needed	Who will organise resources?	
			Who?	When?		Who?	When?
Step 3. Prevent or treat dehydration							
PREVENT							
Give ReSoMal after each watery stool, orally.							
Staff know:							
- how to prepare ReSoMal							
- how much to give and how often							
- how to record volume given, and time.							
Staff know warning signs of over-hydration.							
TREAT							
Give ReSoMal 5ml/kg every 30 minutes for 2 hours orally, except if in shock.							
Monitor pulse and respirations at least hourly during oral rehydration.							
Stop ReSoMal when there are signs of hydration. Staff know signs of dehydration, hydration and over-hydration.							
<i>If in shock:</i>							
- give oxygen							
- give 10% glucose by IV							
- give IV fluids							
- keep child warm							
- monitor pulse and respirations every 5–10 min.							
- give antibiotics							
Step 4. Correct electrolyte imbalance							
PREVENT							
Give F75 (and rehydrate with ReSoMal) in stabilisation phase as these are low in sodium and contain adequate amounts of micronutrients.							
Do not give diuretics for oedema.							
TREAT							
Give F75 (and rehydrate with ReSoMal) in stabilisation phase as these are low in sodium and contain adequate amounts of micronutrients.							
If clinical signs of hypokalemia: give extra potassium.							
If clinical signs of hypomagnesium: give extra magnesium.							

Step (Hospital)	Current Status (What do we know)	Changes to be introduced (New things we must do)	Who will organise changes?		New resources needed	Who will organise resources?	
			Who?	When?		Who?	When?
Step 5. Prevent or treat infections and infestations							
PREVENT							
Keep children with SAM in a separate ward.							
Reduce overcrowding							
Provide good nursing care and prevent cross infections: <ul style="list-style-type: none"> ➤ Give drugs in time. ➤ Monitor vital signs. ➤ Wash hands before preparing feeds, after use of bathroom, after change of nappies, before and after handling the child. ➤ Ensure good hygiene in the ward; Discard left over of feeds. 							
Give first-line antibiotics, even if no clinical signs.							
Give antihelminth after one week in treatment to children > 1 year.							
Give measles vaccine to unimmunised children >6 months old.							
Protect broken skin, use for example paraffin gauze, and bandage hands if scratching.							
TREAT							
Give Antibiotic.							
Know when to give first line antibiotic if SAM without medical complications, and first-line, second-line, third-line antibiotic if SAM with medical complications, and correct dose.							
Give antibiotics on time.							
Give antihelminth immediately in case of severe parasitic worm infestation.							
Treat other infections and infestations according to the national IMNCI protocol.							
Give paracetamol in case of high fever.							

Step (Hospital)	Current Status (What do we know)	Changes to be introduced (New things we must do)	Who will organise changes?		New resources needed	Who will organise resources?	
			Who?	When?		Who?	When?
Step 6. Correct micronutrient deficiencies							
Give vitamin A after 4 weeks or upon discharge.							
Give folic acid, single dose on day 1.							
Give iron sulphate after 2 days in transition phase and only when on F-100.							
Staff know that vitamin A, folic acid, zinc and copper are already in the commercial therapeutic foods, or in the locally prepared foods when CMV is being used.							
Step 7. Start cautious feeding							
Stabilisation phase:							
Give F-75 therapeutic milk 130 ml/kg/day and divide into 2- to 3-hourly feeds.							
If the child has severe oedema (+++), reduce the volume to 100 ml/kg/day.							
Give 2-hourly feeds in the first 24 hours, then change to 3-hourly feeds according to the condition of the child.							
If the child has poor appetite, encourage the mother to support the child finishing the feed.							
Use an NGT, if the child takes < 80% of the amount offered for two consecutive feeds.							
Keep a 24-Hour Food Intake Chart for each child. Measure feeds carefully.							
If the child is breastfed, always offer breastfeeding before giving F-75.							
Weigh daily and plot weight.							
When appetite returns, move the child to transition phase.							
Transition phase:							
<i>Introduce RUTF:</i> Test the appetite with RUTF. Offer plenty of clean water to drink. If the child takes the RUTF (passes the appetite test), continue all feeds with RUTF, based on 150 kcal/kg/day. Complete the feed with F-100 if necessary. If the child does not take RUTF, give F-100 but repeat the appetite test at every feed.							

Step (Hospital)	Current Status (What do we know)	Changes to be introduced (New things we must do)	Who will organise changes?		New resources needed	Who will organise resources?	
			Who?	When?		Who?	When?
<p><i>If RUTF is not available:</i> Continue feeding the child with F-100 130-150 ml/kg/day and divide in 5-6 hourly feeds. If the child is breastfed, encourage continued breastfeeding. Weigh daily and plot weight. (The child should not gain more than 5 g/kg/day.)</p>							
<p>Observe the child for 24 hours to ensure he/she is able to eat the daily amount of RUTF, and refer the child to Outpatient Care for continuing treatment if the child is clinically well and alert and the oedema is reducing and the medical complication resolving.</p>							
Step 8. Increase feeding to recover weight: "Catch-up growth" (for the exceptional cases who stay in Inpatient Care for rehabilitation)							
<p>Give RUTF in correct amounts. Offer plenty of water to drink.</p>							
<p>If RUTF is not available, continue free feeding on F-100 150-220 ml/kg/day. Offer extra amounts of F-100, if the child finishes the amount prescribed.</p>							
<p>If the child is breastfed, encourage continued breastfeeding.</p>							
<p>Weigh daily and plot weight. (The child should start gaining weight, i.e., more than 10 g/kg/day).</p>							
<p>Gradually introduce home foods after the child reaches the discharge criteria.</p>							
Step 9. Stimulate emotional and sensorial development							
<p>Provide tender loving care.</p>							
<p>Help and encourage mothers to comfort, feed and play with their children.</p>							
<p>Give structured play when the child is well enough, that improve development</p>							
Step 10. Prepare for referral and follow-up in Outpatient Care							
<p>Fill in the Outcome page of the Inpatient Management Record.</p>							
<p>Inform the mother of the closest Outpatient Care site to her home and give the mother a weekly ration of RUTF to continue treatment at home.</p>							
<p>Send for immunisation update.</p>							
<p>Establish a link with community health workers for home follow-up in Outpatient Care.</p>							
<p>Write a clinical summary on the referral form for the health care providers in Outpatient Care.</p>							



Bilateral Pitting Oedema

[Under 5]

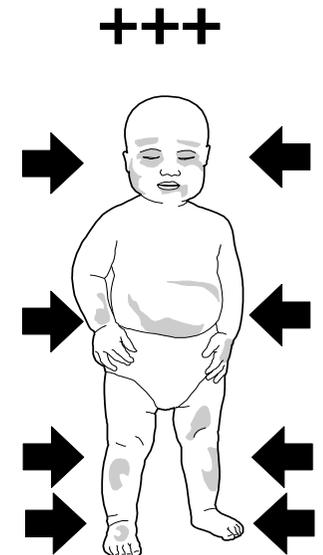
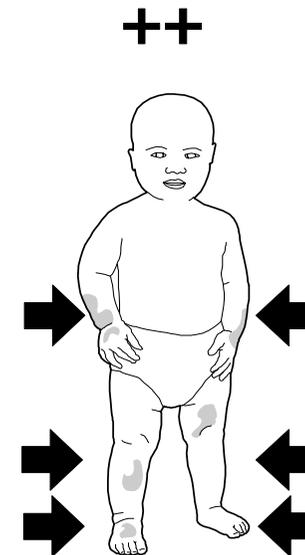
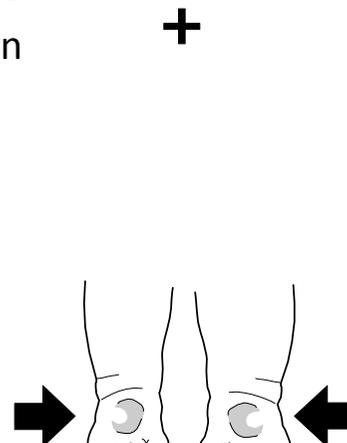
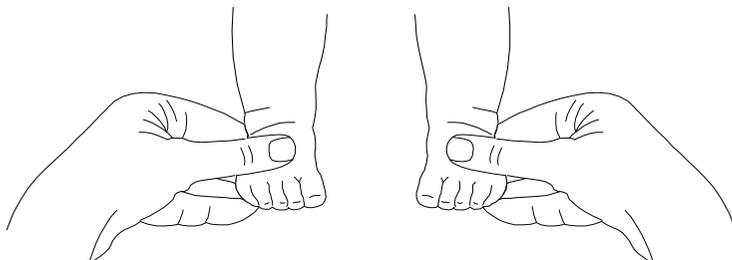
* *Bilateral pitting oedema always starts in both feet. Oedema in only one foot is not of nutritional origin.*

1 Hold the child's feet and press your thumbs on top of both feet. Count to 3 and then lift your thumbs. If no pit shows or if a pit only shows in one foot, the child does not have bilateral pitting oedema. If a pit shows in both feet, go to Step 2.

2 Continue the same test on the lower legs, hands, and lower arms. If no pitting appears in these areas, then the child is said to have mild (grade +) bilateral pitting oedema. (Mild bilateral pitting oedema only shows in the feet.) If pitting appears in these areas, go to Step 3.

3 Look for swelling in the face, especially around the eyes. If no swelling appears in the face, then the child is said to have moderate (grade ++) bilateral pitting oedema. If swelling appears in the face, the child is said to have severe (grade +++) bilateral pitting oedema.

4 If child has oedema, have a second person repeat the test to confirm results.





MUAC (without aid)

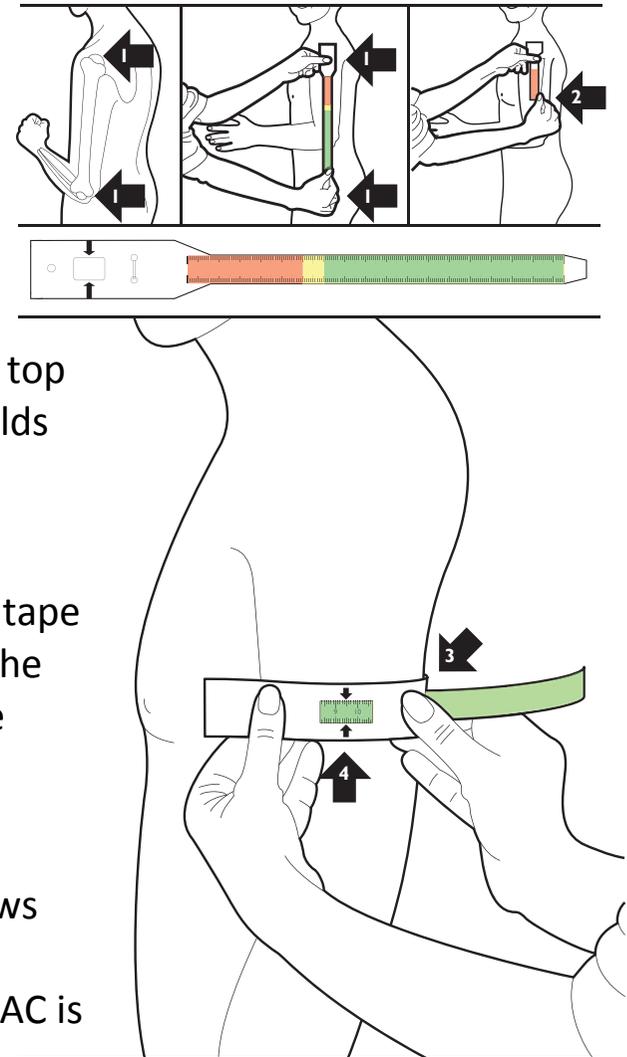
[6–59 months]

1 MUAC is always taken on the left arm. Have the child bend his/her left arm at a 90° angle. Find the top of the shoulder and the tip of the elbow. Put the top edge of the MUAC tape on the top of the shoulder and place the right thumb on the tape where it meets the tip of the elbow (endpoint).

Find the middle of the upper arm by carefully folding the endpoint to the top edge of the tape and place the left thumb on the point where the tape folds (midpoint).

With the child's arm relaxed and falling alongside his/her body, wrap the tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.

Read the measurement from the middle window, exactly where the arrows point inward. Depending on the tape used, the measurement will be in millimetres (mm), centimetres (cm), or in colour (red, yellow, green). MUAC is recorded with a precision of 1 mm (0.1 cm).

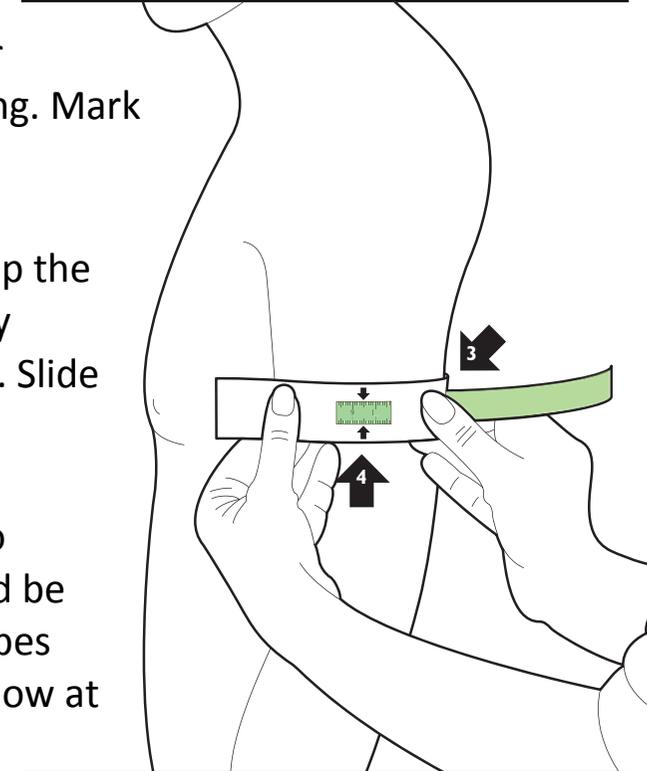
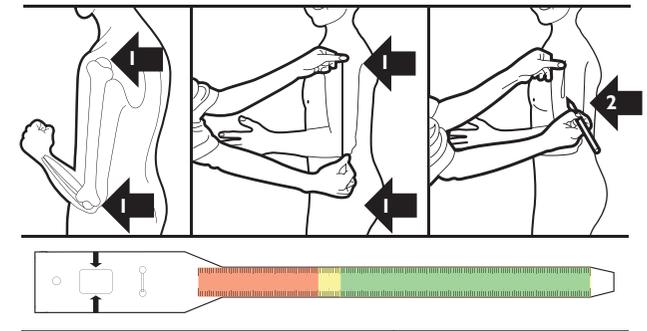




MUAC (with pen & string)

[6–59 months]

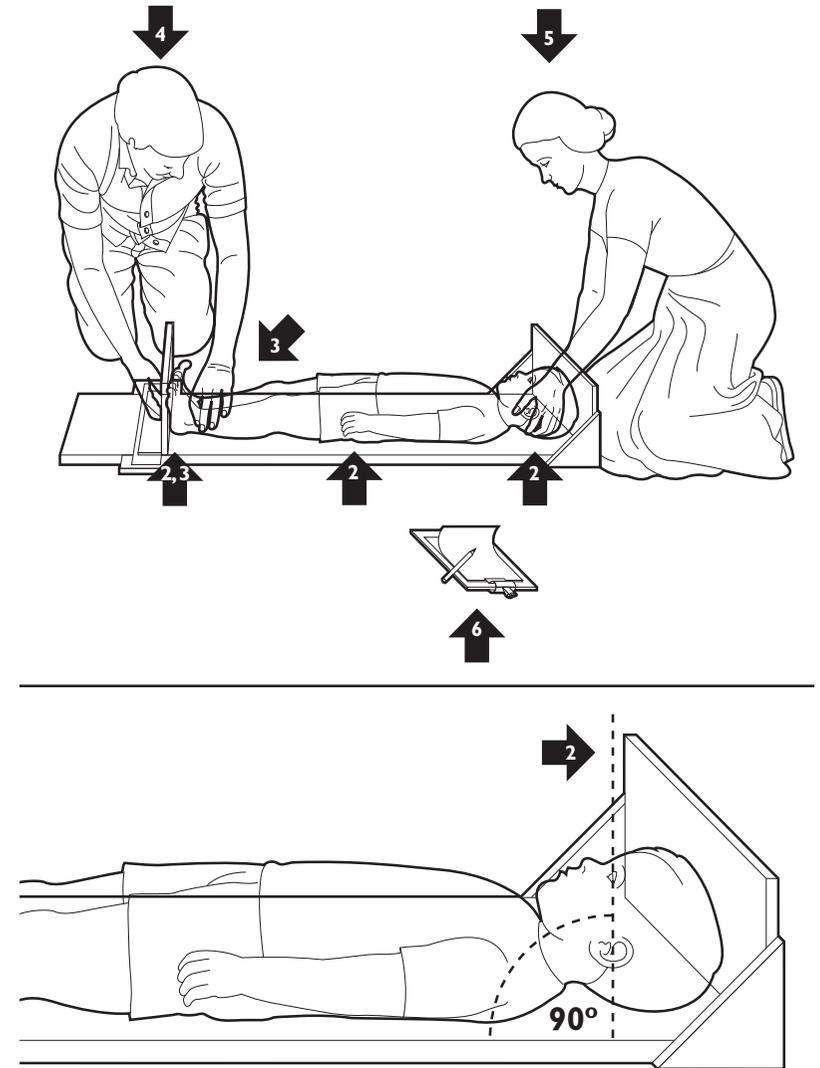
- 1** MUAC is always taken on the left arm. Have the child bend his/her arm at a 90-degree angle. Find the top of the shoulder and the tip of the elbow. Hold one end of a piece of string at the top of the shoulder and hold the string where it meets the tip of the elbow (endpoint).
- 2** Fold the endpoint up to the end of the string on top of the shoulder and place the left thumb on the point of the folded ends of the string. Mark the midpoint with a pen.
- 3** With the child's arm relaxed and falling alongside his/her body, wrap the MUAC tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.
- 4** Read the measurement from the middle window exactly where two arrows point inward. For numbered tapes, the measurement should be recorded with a precision of 1 millimetre (mm). For three-colour tapes (red, yellow, green), record the colour that shows through the window at the point the two arrows indicate.





Height Using Length Board [Under 2 years **OR**, if age is not known, height less than 87 cm, **OR** 2 years or older or at least 87 cm tall but unable to stand]

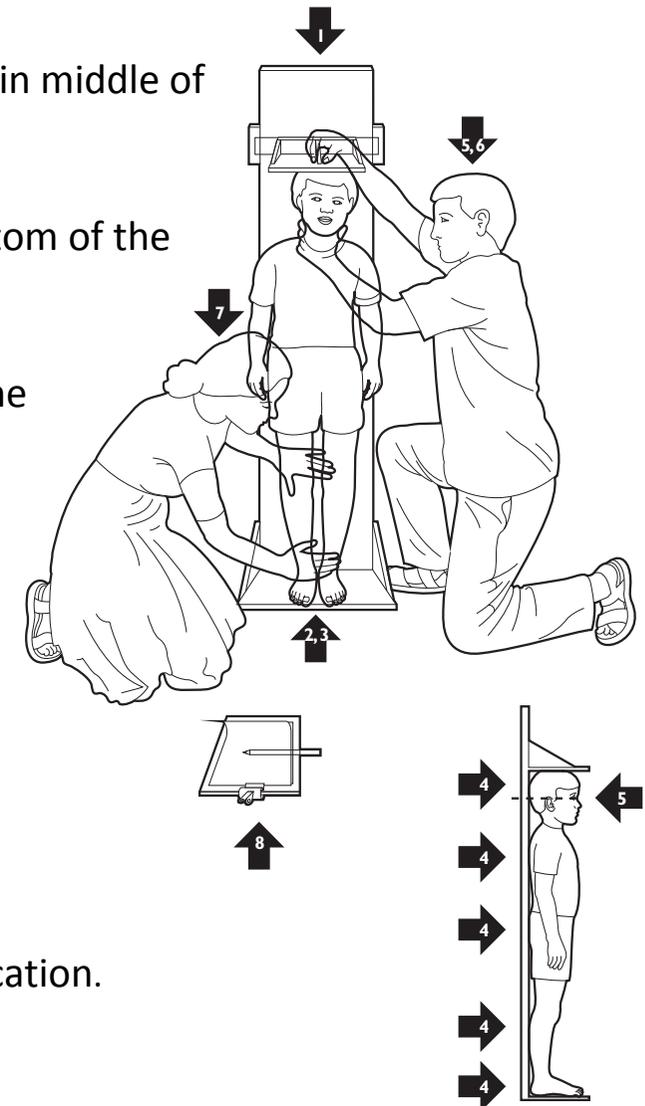
- 1 Place height board on the ground and remove child's shoes.
- 2 Place child on his/her back in middle of board, head facing straight up, arms at child's sides and feet at 90° angles to board.
- 3 While holding child's ankles or knees, move sliding board up against bottom of child's feet.
- 4 Take measurement to nearest 0.1 cm and read out loud.
- 5 The assistant, while holding the child's head in place, repeats the measurement for verification.
- 6 Measurer records height to nearest 0.1 cm. If child is 2 years or older or is 87 cm or greater while standing up, subtract 0.7 cm from measurement.





Height Using Height Board [2 years or older **OR** height 87 cm or greater **AND** able to stand]

- 1 Remove child's shoes and place him/her on height board, standing upright in middle of board with arms at his/her sides.
- 2 Child's feet should be close together with heels and soles touching the bottom of the board (that is, not standing tiptoe).
- 3 The back of the child's ankles and knees should be firmly pressed toward the board.
- 4 The child should stand straight, with heels, back of legs, buttocks, shoulders and head touching the back of the board.
- 5 Measurer holds child's head straight. The child's line of vision should be parallel to the floor.
- 6 Measurer reads measurement out loud to nearest 0.1 cm.
- 7 Assistant, holding child's legs and feet, repeats the measurement for verification.
- 8 Measurer records height to nearest 0.1 cm.





Tips for Weighing a Child or Infant

- ✓ Never weigh a child without explaining the procedure to the caregiver.
- ✓ Children should be weighed and completely naked only in the presence of the caregiver. Have the caregiver remove the child's clothes.
- ✓ Put a soft cloth or the child's wrapping on the scale to protect the child from the hard and potentially cold surface.
- ✓ Read the child's weight when the child is not moving. The child should remain still for the weighing.
- ✓ Scales must be cleaned and re-zeroed after each weighing.
- ✓ Infants under 6 months are weighed using an infant scale with of a 10-gram precision



Weight Using a Solar Electronic Scale

[6–59 months]

* 'Tared weighing' means that the scale can be reset to zero ('tared') with the person just weighed still on it. Stress that the caregiver must stay on the scale until his/her child has been weighed in her arms.

1 Be sure that the scale is placed on a flat, hard, even surface. Since the scale is solar powered, there must be enough light to operate the scale.

2 To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

3 Check to see that the caregiver has removed his/her shoes. You or someone else should hold the naked child wrapped in a blanket.

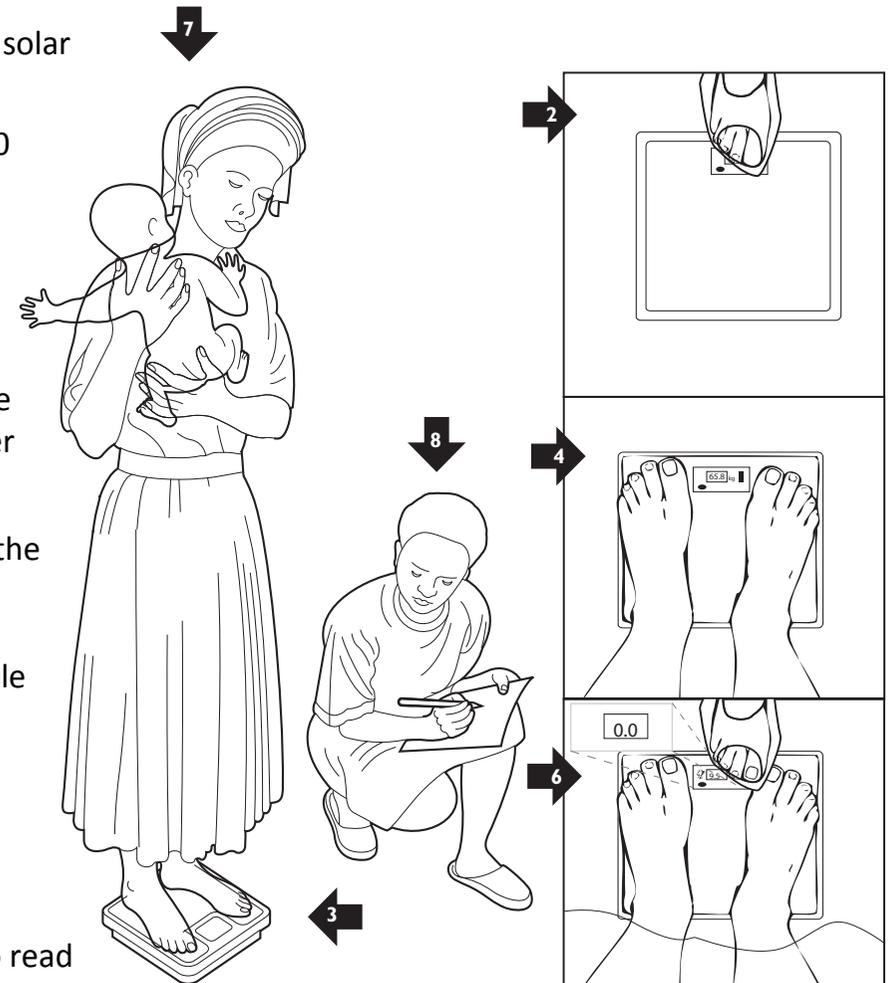
4 Ask the caregiver to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The caregiver's clothing must not cover the display or solar panel.

5 Remind him/her to stay on the scale even after his/her weight appears, until the child has been weighed in his/her arms.

6 With the caregiver still on the scale and his/her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of an adult and a child and the number 0.0.

7 Gently hand the naked child to the caregiver and ask him/her to remain still.

8 The child's weight will appear on the display. Record the weight. Be careful to read the numbers in the correct order (as though you were viewing while standing on the scale rather than upside-down).



Adapted from "How to use the UNISCALE" UNICEF, 2000 and "Weighing a Child Using a Taring Scale" WHO, 2006.



Weight Using Hanging Scale (Pants)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measurement does not match that of the known weight to within 10 grams, the springs must be changed or the scale should be replaced.

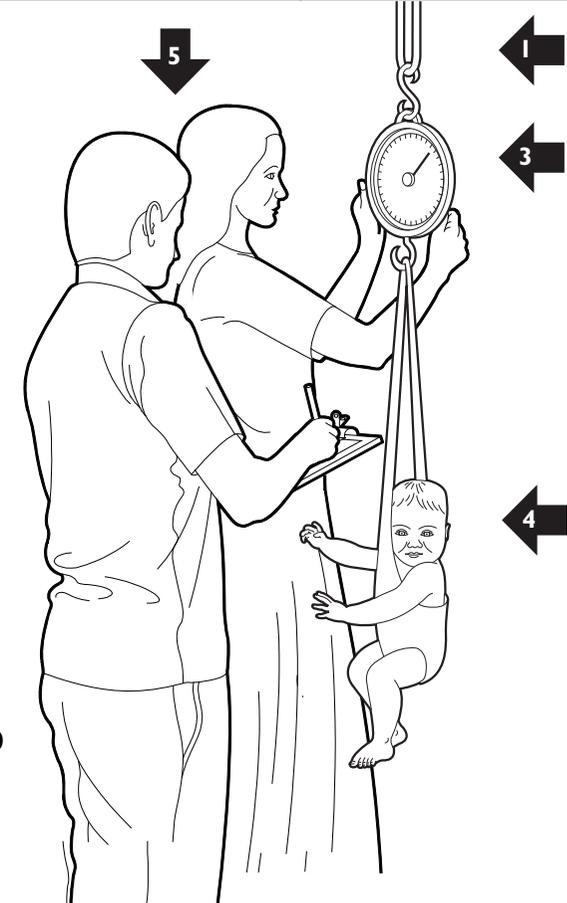
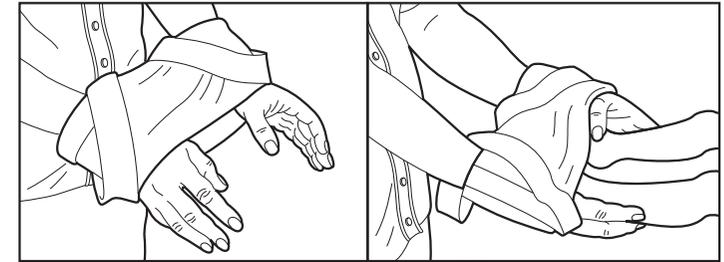
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the weighing pants hooked on the scale.

4 Place child in weighing pants and let child hang freely, touching nothing. Make sure the child is safely in the weighing pants, with one arm in front and one arm behind the straps to help maintain balance.

5 When arrow is steady, measurer reads child's weight in kg at **eye level** to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using Hanging Scale (Bucket)

[6–24 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams, the springs must be changed or the scale should be replaced.

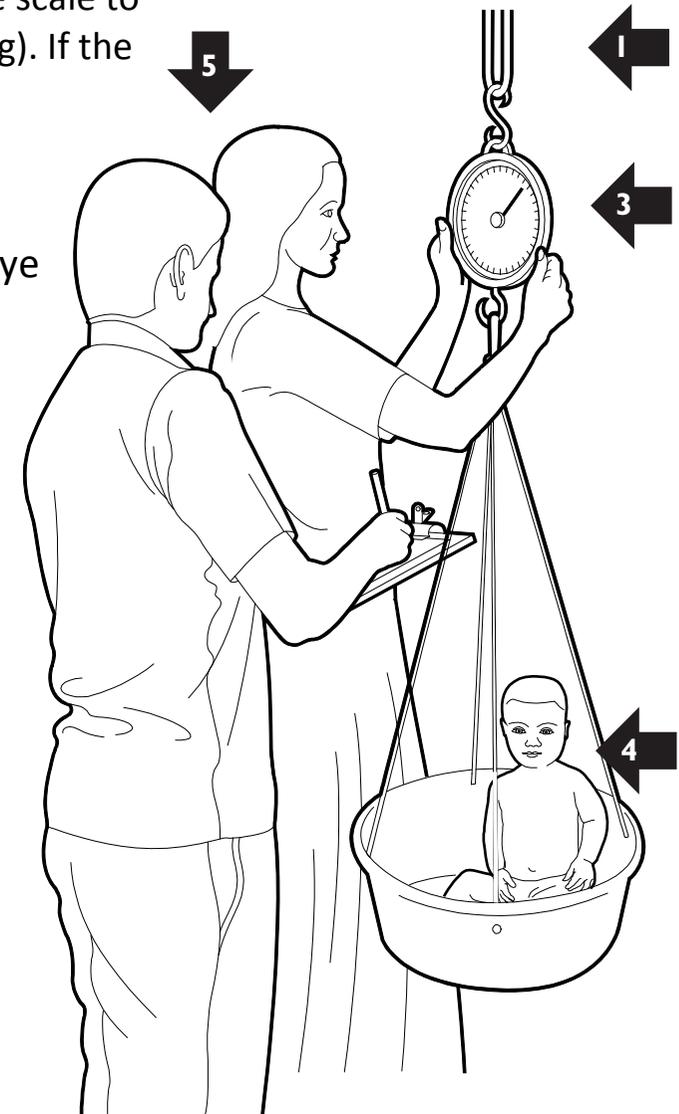
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer. Put a soft cloth or the child's wrapping in the bucket.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the bucket hooked on the scale.

4 Place child in weighing bucket.

5 When arrow is steady, measurer reads child's weight in kg at **eye level**. The assistant repeats it for verification and records it to nearest 100 g (for example, 5.2 kg).





Weight Using Hanging Scale (Cloth)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (e.g., 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams the springs must be changed or the scale should be replaced.

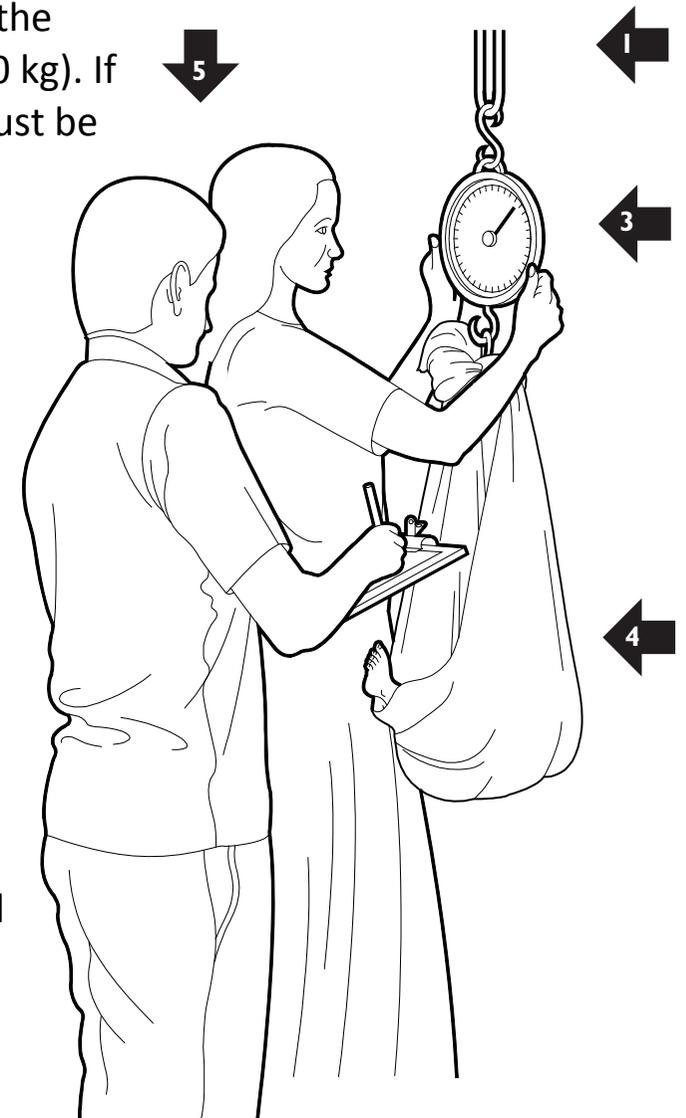
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all his/her clothes off.

3 Make sure the weighing scale arrow is at 0 (zero the scale) each time with the hammock or cloth that will be used hooked on the scale.

4 Place child in hammock or cloth, hook it on the scale, and let child hang freely, touching nothing. Make sure the child is safely in the hammock or cloth.

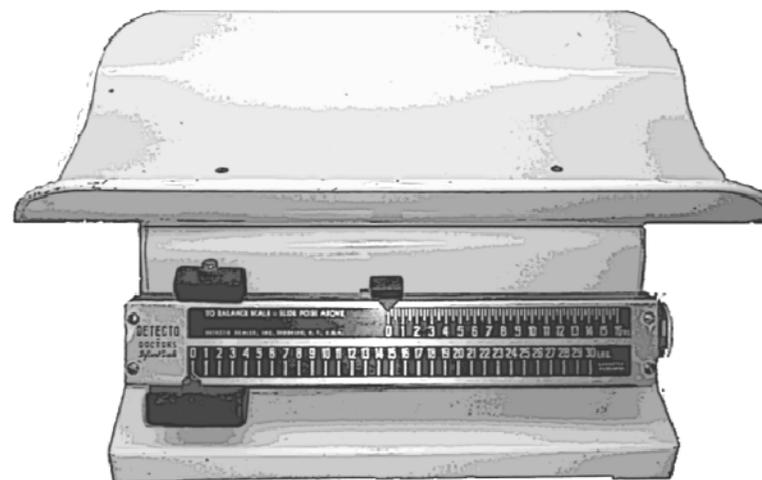
5 When arrow is steady, measurer reads child's weight in kg at eye level and to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using an Infant Beam Scale [Infants under 6 Months]

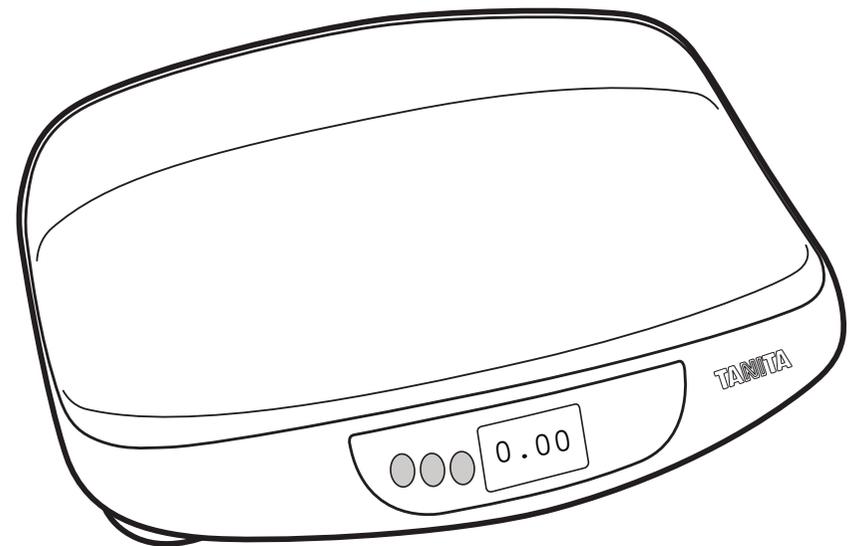
- 1 Unlock the beam, put a soft cloth or the infant's wrapping on the scale, and zero the scale (i.e., make sure that the end of the beam is not touching either the top or the bottom of the hole it fits through).
- 2 Have the caregiver remove the infant's clothes and put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale.
- 3 Move the weights along the beam until the end of the beam is not touching either the top or the bottom of the hole it fits through.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 2 kg 220 g).
- 5 Lock the beam and remove the infant.
- 6 Clean and re-zero the scale.





Weight Using an Infant Bench Scale [Infants under 6 Months]

- 1 Have the caregiver remove the infant's clothes and hold the child.
- 2 Put a soft cloth or the infant's wrapping on the scale and turn it on. Wait until the scale shows zeros.
- 3 Within 60 seconds of the scale showing zeros, have the caregiver put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale. The scale will display the infant's weight.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 3 kg 470 g).
- 5 Turn off the scale and remove the infant.
- 6 Clean the scale.





Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5

Inpatient Care

Outpatient Care

ADMISSION CRITERIA

CHILDREN 6–59 MONTHS

Bilateral pitting oedema +++

OR

Any grade of bilateral pitting oedema with severe wasting (MUAC < 115 mm or WFH < -3 z-score)

OR

SAM with any of the following medical complications:

- Anorexia, poor appetite
- Intractable vomiting
- Convulsions
- Lethargy, not alert
- Unconsciousness
- Hypoglycaemia
- High fever
- Hypothermia
- Severe dehydration
- Persistent diarrhoea
- Lower respiratory tract infection
- Severe anaemia
- Eye signs of vitamin A deficiency
- Skin lesion

OR

Referred from Outpatient Care according to action protocol

INFANTS < 6 MONTHS

(Includes infants with SAM ≥ 6 months and < 4 kg)

Bilateral pitting oedema

OR

Visible wasting

CHILDREN 6–59 MONTHS

Bilateral pitting oedema + or ++

OR

Severe wasting (MUAC < 115 mm or WFH < -3 z-score)

AND

- Appetite test passed
- No medical complication
- Child clinically well and alert

REFERRAL/DISCHARGE CRITERIA

CHILDREN 6–59 MONTHS

Referred to Outpatient Care:

- Appetite returned (passed appetite test)
- Medical complication resolving
- Severe bilateral pitting oedema decreasing
- Child clinically well and alert

(additional criterion for referral for cases of oedema with wasting: bilateral pitting oedema resolved)

Discharged cured (special cases):

- 15 percent weight gain maintained for 2 consecutive weeks (of admission weight or weight free of oedema) (for cases of wasting and of oedema with wasting)
- Oedema-free for 2 consecutive weeks
- Child clinically well and alert

INFANTS < 6 MONTHS

Discharged cured (for breastfed infants):

- Successful re-lactation and appropriate weight gain maintained (minimum 20 g per day on breastfeeding alone for 5 days) and infant clinically well and alert
- Oedema-free for 2 consecutive weeks

(See other guidance for non-breastfed infants who are on replacement feeding.)

CHILDREN 6–59 MONTHS

Discharged cured:

- 15 percent weight gain maintained for 2 weeks (of admission weight or weight free of oedema)
- Oedema-free for 2 consecutive weeks
- Child clinically well and alert

Children are referred to receive supplementary feeding if available.



Weight-for-Length Look-Up Table Children 6–23 Months

[WHO 2006 Child Growth Standards]

If a child is under 2 years old, or if a child is less than 87 cm tall and his/her age is not known, measure length while the child is lying down (recumbent). Use the weight-for-length look-up table.

Boys' weight (kg)				Length (cm)	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median		Median	-1 SD	-2 SD	-3 SD
1.9	2.0	2.2	2.4	45	2.5	2.3	2.1	1.9
2.0	2.2	2.4	2.6	46	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2
2.3	2.5	2.7	2.9	48	3.0	2.7	2.5	2.3
2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4
2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6
2.7	3.0	3.2	3.5	51	3.6	3.3	3.0	2.8
2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9
3.1	3.4	3.7	4.0	53	4.0	3.7	3.4	3.1
3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3
3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5
3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7
4.0	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9
4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1
4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3
4.7	5.1	5.5	6.0	60	5.9	5.4	4.9	4.5
4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7
5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9
5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1
5.5	6.0	6.5	7.0	64	6.9	6.3	5.7	5.3
5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5
5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6
6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8
6.3	6.8	7.3	8.0	68	7.7	7.1	6.5	6.0
6.5	7.0	7.6	8.2	69	8.0	7.3	6.7	6.1
6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3
6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5
7.0	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6
7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8
7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9
7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1
7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2
7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4
7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5
8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7
8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0
8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1
8.7	9.4	10.2	11.0	83	10.7	9.8	9.0	8.3
8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5
9.1	9.8	10.6	11.5	85	11.2	10.3	9.4	8.7
9.3	10.0	10.8	11.7	86	11.5	10.5	9.7	8.9
9.5	10.2	11.1	12.0	87	11.7	10.7	9.9	9.1
9.7	10.5	11.3	12.2	88	12.0	11.0	10.1	9.3
9.9	10.7	11.5	12.5	89	12.2	11.2	10.3	9.5
10.1	10.9	11.8	12.7	90	12.5	11.4	10.5	9.7
10.3	11.1	12.0	13.0	91	12.7	11.7	10.7	9.9
10.5	11.3	12.2	13.2	92	13.0	11.9	10.9	10.1
10.7	11.5	12.4	13.4	93	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	94	13.5	12.3	11.3	10.4
11.0	11.9	12.8	13.9	95	13.7	12.6	11.5	10.6
11.2	12.1	13.1	14.1	96	14.0	12.8	11.7	10.8
11.4	12.3	13.3	14.4	97	14.2	13.0	12.0	11.0
11.6	12.5	13.5	14.6	98	14.5	13.3	12.2	11.2
11.8	12.7	13.7	14.9	99	14.8	13.5	12.4	11.4
12.0	12.9	14.0	15.2	100	15.0	13.7	12.6	11.6



Weight-for-Height Look-Up Table Children 24–59 Months

[WHO 2006 Child Growth Standards]

If a child is 2 years old or older, or if a child is at least 87 cm tall and his/her age is not known, measure standing height. If a child 2 years old or older or at least 87 cm tall is unable to stand, measure length while the child is lying down (recumbent) and subtract 0.7 cm from the length to arrive at a comparable height. Use the weight-for-height look-up table.

Boys' weight (kg)				Height (cm)	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median		Median	-1 SD	-2 SD	-3 SD
5.9	6.3	6.9	7.4	65	7.2	6.6	6.1	5.6
6.1	6.5	7.1	7.7	66	7.5	6.8	6.3	5.8
6.2	6.7	7.3	7.9	67	7.7	7.0	6.4	5.9
6.4	6.9	7.5	8.1	68	7.9	7.2	6.6	6.1
6.6	7.1	7.7	8.4	69	8.1	7.4	6.8	6.3
6.8	7.3	7.9	8.6	70	8.3	7.6	7.0	6.4
6.9	7.5	8.1	8.8	71	8.5	7.8	7.1	6.6
7.1	7.7	8.3	9.0	72	8.7	8.0	7.3	6.7
7.3	7.9	8.5	9.2	73	8.9	8.1	7.5	6.9
7.4	8.0	8.7	9.4	74	9.1	8.3	7.6	7.0
7.6	8.2	8.9	9.6	75	9.3	8.5	7.8	7.2
7.7	8.4	9.1	9.8	76	9.5	8.7	8.0	7.3
7.9	8.5	9.2	10.0	77	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	78	9.8	9.0	8.3	7.6
8.2	8.8	9.6	10.4	79	10.0	9.2	8.4	7.8
8.3	9.0	9.7	10.6	80	10.2	9.4	8.6	7.9
8.5	9.2	9.9	10.8	81	10.4	9.6	8.8	8.1
8.7	9.3	10.1	11.0	82	10.7	9.8	9.0	8.3
8.8	9.5	10.3	11.2	83	10.9	10.0	9.2	8.5
9.0	9.7	10.5	11.4	84	11.1	10.2	9.4	8.6
9.2	10.0	10.8	11.7	85	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	86	11.6	10.7	9.8	9.0
9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2
9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4
10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6
10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8
10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0
10.6	11.4	12.3	13.4	92	13.1	12.0	11.1	10.2
10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4
11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6
11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8
11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9
11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1
11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3
11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5
12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7
12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0
12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2
12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4
13.0	14.0	15.2	16.5	104	16.4	15.0	13.8	12.6
13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9
13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1
13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4
13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7
14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9
14.4	15.6	17.0	18.5	110	18.6	17.0	15.5	14.2
14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5
14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8
15.2	16.5	18.0	19.6	113	19.8	18.0	16.5	15.1
15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4
15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7
16.0	17.4	19.0	20.8	116	21.1	19.2	17.5	16.0
16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3
16.5	18.0	19.7	21.6	118	22.0	19.9	18.2	16.6
16.8	18.3	20.0	22.0	119	22.4	20.3	18.5	16.9
17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3



Action Protocols for Children 6–59 Months with SAM in Outpatient Care

Reason	Referral to Inpatient Care	Home Visit
GENERAL CONDITION	Deteriorating	Child is absent or defaulting Child is not gaining weight or losing weight on follow-up visit Child returned from Inpatient Care or refused referral to Inpatient Care
BILATERAL PITTING OEDEMA	Severe (grade +++)	
	Any severity of bilateral pitting oedema (+ ++ +++) with severe wasting	
	Increase in bilateral pitting oedema Bilateral pitting oedema not reducing by week 3	
ANOREXIA*	Poor appetite or unable to eat – failed appetite test with RUTF	
VOMITING*	Intractable vomiting	
CONVULSIONS*	Convulsions since the last visit, based on mother's/caregiver's recall/report	
LETHARGY, NOT ALERT*	Child is difficult to awaken	
UNCONSCIOUSNESS*	Child does not respond to painful stimuli	
HYPOGLYCAEMIA	A clinical sign in a child with SAM is eyelid retraction: Child sleeps with eyes slightly open. Low level of <u>blood glucose</u> (< 3 mmol/L)	
DEHYDRATION	Severe dehydration is assumed if there is recent history of profuse watery diarrhoea and if the eyes have recently become sunken (recent = within 24 hours); ask mother/caregiver to confirm these conditions	
HIGH FEVER	Axillary temperature $\geq 38.5^{\circ}\text{C}$, rectal temperature $\geq 39.0^{\circ}\text{C}$, taking into consideration the ambient temperature	
HYPOTHERMIA	Axillary temperature $< 35.0^{\circ}\text{C}$, rectal temperature $< 35.5^{\circ}\text{C}$, taking into consideration the ambient temperature	
RESPIRATION RATE	≥ 60 breaths/minute for children under 2 months	
	≥ 50 breaths/minute for children 2–12 months	
	≥ 40 breaths/minute for children 1–5 years	
	Any chest in-drawing	
ANAEMIA	Palmer pallor or unusual paleness of skin	
SKIN LESION	Broken skin, fissures, flaking of skin	
SUPERFICIAL INFECTION	Any infection requiring intramuscular antibiotic treatment	
WEIGHT CHANGES	Below admission weight on week 3	
	Weight loss for 2 consecutive visits	
	Static weight for 3 consecutive visits	
NO RESPONSE TO TREATMENT	Static weight or weight loss, or no reduction of oedema	
REQUEST	Mother/caregiver requests treatment of child in Inpatient Care for social reasons (decided by supervisor)	

* IMNCI danger sign



Routine Medicine Protocols and Vaccines for Children 6–59 Months with SAM in Outpatient Care

Name of Medication	When to Give	Age/Weight	Prescription	Dose
AMOXICILLIN	On admission if no medical complication	6–59 months	Amoxicillin 45–90 mg/kg/day	15–30 mg/kg, 3 times per day, for 5 days, orally
ALBENDAZOLE or MEBENDAZOLE	After 1 week, for presumptive treatment	≥ 12 months	1–2 years: Albendazole 200 mg Mebendazole 300 mg > 2 years: Albendazole 400 mg Mebendazole 600 mg	Albendazole: 1–2 years: 200 mg single dose > 2 years: 400 mg single dose Mebendazole: 1–2 years: 300 mg single dose > 2 years: 600 mg single dose
VITAMIN A	On week 4 or discharge (and oedema free) if no eye signs of vitamin A deficiency	6–59 months	6–11 months: 100,000 IU ≥ 12 months: 200,000 IU	Delayed single dose

Folic Acid and Iron:

- The child on a RUTF diet receives neither folic acid nor iron, as the daily dose of RUTF contains sufficient iron (10 mg/100 g or 500 kcal) and folic acid (210 µg/100 g or 500 kcal).

Zinc:

- Zinc is not given in case of diarrhoea, as the daily dose of RUTF contains sufficient zinc (daily dose provides 30–45 mg of elemental zinc).

Antimalarial Drugs:

- Refer to the national guidelines for first-, second- and third-line treatment and for when to give or not give presumptive malaria treatment.

Vaccination:

- Give measles vaccine if child > 9 months and has not yet received the measles vaccine.
- Update all vaccines.



Other Medicine Protocols for Children 6–59 Months with SAM in Outpatient Care*

Name of Medication	When to Give	Prescription and Dose	Special Instructions
CHLORAMPHENICOL	For SAM without medical complications (second-line antibiotic)	Capsules 250 mg: < 10 kg: 125 mg, ≥ 10 kg: 250 mg 3 times per day, for 7 days, orally	Use as second-line antibiotic to treat confirmed minor infections after first-line antibiotic, in the absence of fever.
AMOXICILLIN-CLAVULANIC ACID	For SAM without medical complications (second-line antibiotic)	45–90 mg/kg/day: 15–30 mg/kg, 3 times per day, for 7 days, orally	Use as second-line antibiotic to treat confirmed minor infections after first-line antibiotic, in the absence of fever.
TETRACYCLINE EYE OINTMENT <i>or</i> CHLORAMPHENICOL EYE DROPS	For treatment of eye infection	1 drop, 2 times per day 1 drop, 4 times per day	Wash hands before and after use; wash eyes before application; continue for 2 days after disappearance of signs of infection.
NYSTATIN	For treatment of candidiasis	100,000 units (1 ml) 4 times per day after food, for 7 days	Use dropper and show caregiver how to use it.
PARACETAMOL	For treatment of fever over 38.5° C	10 mg/kg	All children with high fever have to be referred to Inpatient Care.
BENZYL BENZOATE	For treatment of scabies	Apply over whole body; repeat without bathing on following day; wash off 24 hours later	Avoid eye contact; do not use on broken or secondary infected skin.
WHITFIELDS	For treatment of ringworm, taenia or fungal infections of the skin	Apply 2 times per day	Continue treatment until condition has completely resolved.
GENTIAN VIOLET	For treatment of minor abrasions or fungal infections of the skin	Apply on lesion	Can be repeated; continue until condition has resolved.

*Not listed: medicine protocols for treating other infections and infestations, such as tuberculosis, HIV, giardiasis; refer to the national treatment protocols.



RUTF Appetite Test for Children 6–59 Months with SAM in Outpatient Care

The appetite is tested upon admission and at each follow-up visit to the health facility in Outpatient Care.

- Explain to the mother/caregiver:
 - What is ready-to-use therapeutic food (RUTF)
 - The purpose of the test and the procedure
- Advise the mother/caregiver to:
 - Wash her hands before giving the RUTF
 - Sit with her child in her lap and gently offer the RUTF
 - Encourage the child to eat the RUTF without force feeding
 - Offer plenty of clean water, to drink from a cup, when her child is eating the RUTF
- Observe the child eating the RUTF in 30 minutes and decide if the child passes or fails the test.

Pass Appetite Test	Fail Appetite Test
The child eats at least one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.	The child does NOT eat one-third of a packet of RUTF (92 g) or 3 teaspoons from a pot within 30 minutes.

Note: If necessary, arrange a quiet corner where the child and mother/caregiver can take their time to get accustomed to eating the RUTF. Usually the child eats the RUTF in 30 minutes. A child who fails the appetite test should be admitted to Inpatient Care.



Use of RUTF in Children 6–59 Months with SAM in Outpatient Care

Amounts of 92 g Packets of RUTF Containing 500 kcal to Give to a Child per
Week or Day Based on a Dosage of 200 kcal/kg/day

Child's Weight (kg)	Packets per Week	Packets per Day
4.0 – 4.9	14	2
5.0 – 6.9	18	2.5
7.0 – 8.4	21	3
8.5 – 9.4	25	3.5
9.5 – 10.4	28	4
10.5 – 11.9	32	4.5
≥ 12.0	35	5

RUTF Key Messages in Outpatient Care

The following RUTF key messages should be given to the mother when RUTF is introduced in Outpatient Care and repeated during follow-up visits:

1. Do not share RUTF. RUTF is a food and medicine for very thin and swollen children only.
2. Give small, regular meals of RUTF and encourage the child to eat often (5–6 meals per day). Your child should have ___ packets per day. Thin and swollen children often don't like to eat.
3. Continue to breastfeed regularly (if applicable). Offer breast milk first before every RUTF feed.
4. Do not give other food. RUTF is the only food apart from breast milk that thin and swollen children need to recover during their time in Outpatient Care. Other foods, such as homemade foods (use local name or porridge), will be introduced when the child is recovering well.
5. Offer the child plenty of clean water to drink while he/she is eating RUTF. Children will need more water than normal.
6. Wash the child's hands and face with soap before feeding if possible.
7. Keep food clean and covered.
8. Keep the child covered and warm. Thin and swollen children get cold quickly.
9. Do not stop feeding when a child has diarrhoea. Continue to feed RUTF and (if applicable) breast milk.
10. Return to the health facility whenever the child's condition deteriorates or if the child is not eating sufficiently.

Advise the mother to start giving nutritious homemade complementary foods when the child is recovering well.



Guidance Table to Identify Target Weight for Discharge from Management of Severe Acute Malnutrition for Children 6–59 Months

Weight on admission* (kg)	Target weight: 15% weight gain	Weight on admission* (kg)	Target weight: 15% weight gain
4.1	4.7	8.1	9.3
4.2	4.8	8.2	9.4
4.3	4.9	8.3	9.5
4.4	5.1	8.4	9.7
4.5	5.2	8.5	9.8
4.6	5.3	8.6	9.9
4.7	5.4	8.7	10.0
4.8	5.5	8.8	10.1
4.9	5.6	8.9	10.2
5.0	5.8	9.0	10.4
5.1	5.9	9.1	10.5
5.2	6.0	9.2	10.6
5.3	6.1	9.3	10.7
5.4	6.2	9.4	10.8
5.5	6.3	9.5	10.9
5.6	6.4	9.6	11.0
5.7	6.6	9.7	11.2
5.8	6.7	9.8	11.3
5.9	6.8	9.9	11.4
6.0	6.9	10.0	11.5
6.1	7.0	10.1	11.6
6.2	7.1	10.2	11.7
6.3	7.2	10.3	11.8
6.4	7.4	10.4	12.0
6.5	7.5	10.5	12.1
6.6	7.6	10.6	12.2
6.7	7.7	10.7	12.3
6.8	7.8	10.8	12.4
6.9	7.9	10.9	12.5
7.0	8.0	11.0	12.7
7.1	8.2	11.1	12.8
7.2	8.3	11.2	12.9
7.3	8.4	11.3	13.0
7.4	8.5	11.4	13.1
7.5	8.6	11.5	13.2
7.6	8.7	11.6	13.3
7.7	8.9	11.7	13.5
7.8	9.0	11.8	13.6
7.9	9.1	11.9	13.7
8.0	9.2	12.0	13.8

*weight free of oedema



Entry and Exit Categories for Monitoring the Management of Severe Acute Malnutrition in Children 6–59 Months

Inpatient Care	Outpatient Care
ENTRY CATEGORIES	
<p>New admission: New case of child 6–59 months who meets the admission criteria – including <i>relapse</i> after cure (within 2 months)</p> <p>Other age group new admissions: New case of infant, child, adolescent, adult (< 6 months or ≥ 5 years) who is admitted for treatment of SAM in Inpatient Care</p> <p>Referral from Outpatient Care: Condition of child deteriorated in Outpatient Care (according to action protocol) and child needs Inpatient Care</p> <p style="text-align: center;">Or</p> <p>Returned after defaulting (within 2 months) (or <i>Moved</i> from other Inpatient Care site)*</p>	<p>New admission: New case of child 6–59 months who meets the admission criteria – including <i>relapse</i> after cure (within 2 months)</p> <p>Other new admissions: New case who does not meet preset admission criteria but needs treatment of SAM in Outpatient Care (special case, based on decision of supervisor)</p> <p>Referral from Inpatient Care: Child 6–59 months referred from Inpatient Care after stabilisation and continues treatment in Outpatient Care</p> <p style="text-align: center;">Or</p> <p>Returned after defaulting (within 2 months) (or <i>Moved</i> from other Outpatient Care site)*</p>
EXIT CATEGORIES	
<p>Referred to Outpatient Care: Child’s condition has stabilised; child’s appetite has returned; the medical complication is resolving; and child is referred to Outpatient Care to continue treatment</p> <p>Discharged cured: Child 6–59 months who remained in Inpatient Care until full recovery and meets discharge criteria, i.e., special cases that were not referred to Outpatient Care earlier</p> <p>Discharged died: Child 6–59 months who dies while in Inpatient Care</p> <p>Discharged defaulted: Child 6–59 months who is absent for 2 days</p> <p>Discharged non-recovered: Child 6–59 months who remained in Inpatient Care and does not reach discharge criteria after 2 months in treatment</p>	<p>Referred to Inpatient Care: Child’s condition has deteriorated or child is not responding to treatment (per the action protocol), and child is referred to Inpatient Care</p> <p>Discharged cured: Child 6–59 months who meets discharge criteria</p> <p>Discharged died: Child 6–59 months who dies while in Outpatient Care</p> <p>Discharged defaulted: Child 6–59 months who is absent for 2 consecutive weeks</p> <p>Discharged non-recovered: Child 6–59 months who does not reach discharge criteria after 4 months in treatment</p>

* Movement between sites is likely in mobile populations or during emergencies.



Supervisor's Checklist for Outpatient Care

Health Facility: _____

Date: _____

Name of Supervisor: _____

	Total observed	Total correct	Direct observation at site	Quality: 1 – Done correctly 2 – Done, needs improvement 3 – Not done or done incorrectly	Comment
Number of health care providers (staff) and volunteers present					Staff: Volunteers:
Staff greet mothers/caregivers and are friendly and helpful					
Registration numbers assigned correctly	Total new admissions in past month ____				
Registration numbers written on all documents					
Grade of bilateral pitting oedema measured accurately	Total bilateral pitting oedema checks observed ____				
MUAC measured accurately	Total MUAC checks observed ____				
Weight measured accurately	Total weighings observed ____				
Height measured accurately	Total measurements observed ____				
WFH classification done correctly	Total WFH checked ____				
Admission is according to correct criteria	Total cards checked ____				(Spot check cards)
Medical history recorded accurately	Total medical histories observed ____				
Physical examination performed and recorded accurately	Total cards checked ____	Total w/full exam ____			(Check card)
Child's appetite tested using RUTF, upon admission and during Outpatient Care follow-up sessions					How tested and by whom?
Routine medication given according to protocol and recorded accurately	Total cards checked ____	Total with correct medicines ____			
Amount of RUTF needed is correctly calculated	Total cards checked ____				



	Total observed	Total correct	Direct observation at site	Quality: 1 – Done correctly 2 – Done, needs improvement 3 – Not done or done incorrectly	Comment
Appropriate education given to mothers/caregivers					Note topic and form:
Follow-up medicines given according to protocol and recorded accurately	Total cards checked ____				
RUTF ration cards completed correctly	Total cards checked ____				(Spot check)
Slow responders are identified according to the definition for home visits and communicated to community outreach workers	Total non-responders needing home visit during past month ____	Total			
Priorities for home visits discussed with community health worker/volunteer; list of names recorded/ cards marked			List/clear discussion?		
Beneficiaries discharged according to protocol	Total cards checked ____				
Correct number of absentees/defaults identified for home visits	Total number of absentees/ defaults according to cards __	Total w/outcome recorded ____			
Tally sheets, monthly reporting sheets and stock cards completed correctly	Total weeks reviewed ____				(Spot check)



Outpatient Care Treatment Card

ADMISSION INFORMATION							
Name				Reg. N° / /			
Age (months)	Sex	M	F	Date of admission			
Community, locality				Time to travel to site			
House location	Father alive			Yes / No	Mother alive	Yes / No	
Mobile number							
Name of carer		Total number in household		Twin	Yes / No		
Admission	Direct from community	Referred from health facility	Referred from Inpatient Care		Readmission (relapse)	Yes / No	

ADMISSION ANTHROPOMETRY							
MUAC (mm)		Weight (kg)		Height (cm)		WFH z-score	
Admission criteria	Bilateral pitting oedema	MUAC < 115 mm	WFH < -3 z-score	Other, specify		Target weight (kg) based on 15% weight gain (oedema free)	

MEDICAL HISTORY							
Diarrhoea	Yes	No	# Stools / day		1-3	4-5	> 5
Vomiting	Yes	No	Passing urine		Yes	No	
Cough	Yes	No	If oedema, since how long?				
Appetite	Good	Poor	None		Breastfeeding	Yes	No
Additional information							

PHYSICAL EXAMINATION								
Appetite Test	Passed	Failed						
Respiratory rate (# breaths per min)	< 30	30-39	40-49	50-59	≥ 60	Chest In-drawing	Yes	No
Temperature	°C					Palmer Pallor	Normal	Pale
Eyes	Normal	Sunken	Discharge		Dehydration based on history	None	Moderate	Severe
Ears	Normal	Discharge			Mouth	Normal	Sores	Candida
Enlarged lymph nodes	None	Neck	Axilla	Groin		Hands & feet	Normal	Cold
Skin changes	None	Scabies	Peeling	Ulcers / Abscesses		Disability	Yes	No
Additional information								

ROUTINE MEDICINES							
Drug	Date	Dosage			Date		
ADMISSION: Amoxicillin					Malaria test	Type / Outcome:	
2nd VISIT: Anthelmintic	Yes	No			Malaria treatment	Drug / Dosage:	
Week 4: Measles Vaccination	Yes	No			Fully immunised	Yes	No

OTHER MEDICINES						
Drug	Date	Dosage		Drug	Date	Dosage



MONITORING INFORMATION																	
Weeks in treatment	ADM.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Date																	

ANTHROPOMETRY																	
Bilateral Pitting Oedema (+ ++ +++)																	
MUAC (mm)																	
Weight (kg)																	
Weight loss* (Y / N)				*													

If no weight gain or losing weight, plan home visit. If below admission weight after 3 weeks* or weight loss for 2 weeks or static weight for 3 weeks, refer to Inpatient Care

MEDICAL HISTORY																	
Diarrhoea (# days)																	
Vomiting (# days)																	
Fever (# days)																	
Cough (# days)																	

PHYSICAL EXAMINATION																	
Temperature (°C)																	
Respiratory rate (# breaths/min)																	
Dehydrated (Y / N)																	
Anaemia / palmer pallor (Y / N)																	
Skin lesion (Y / N)																	

APPETITE CHECK / FEEDING																	
RUTF test Passed / Failed																	
RUTF (# units given)																	

ACTION / FOLLOW-UP																	
ACTION NEEDED (Y / N)																	
Other medication (see front)																	
Name examiner																	

OUTCOME**

** OK=Continue Treatment A=Absent D=Defaulted (3 consecutive absences) R=Referral RR=Refused Referral C=Cured X=Died NR=Non-Recovered HV= Home Visit

ACTION TAKEN DURING HOME VISIT (INCLUDE DATE)

Name Community Outreach Worker:



Referral Form

[Integrated Management of Neonatal and Childhood Illness (IMNCI)]

Refer to Health Facility:

Date:

Time:

Name:

Age:

Weight:

Temperature:

Reasons for referral:

Other classifications:

Treatments given before referral:

Vaccinations:

Dose of vitamin A:

Name of worker:

Location:

Signature:



CMAM Site Tally Sheet for Children 6–59 Months with SAM

Community, Administrative Unit, Locality, State						
SITE (circle one)	Outpatient Care	Inpatient Care				
MONTH						
Date of week						TOTAL MONTH
TOTAL start of week (A)						Start of Month:
New Cases SAM Children 6–59 months (Oedema) (B1)						
New Cases SAM Children 6–59 months (MUAC < 115 mm) (B2)						
New Cases SAM Children 6–59 months (WFH < -3 z-score) (B3)						
New Cases SAM other age groups: infants < 6 m, children ≥ 5 y, adolescents, adults* (B4)	[]	[]	[]	[]	[]	[]
TOTAL NEW ADMISSIONS (B) (B=B1+B2+B3)						
Old Cases SAM: Returned defaulters (Children 6–59 months) (C1)						
Old Cases SAM: Referred from Outpatient Care or Inpatient Care (Children 6–59 months) (C2)						
TOTAL ENTRIES (Children 6–59 months) (D) (D=B1+B2+B3+C1+C2)						
Discharged Cured (Children 6–59 months) (E1)						
Discharged Died (Children 6–59 months) (E2)						
Discharged Defaulted (Children 6–59 months) (E3)						
Discharged Non-Recovered (Children 6–59 months) (E4)						
TOTAL DISCHARGES (Children 6–59 months) (E) (E=E1+E2+E3+E4)						
Referred to Outpatient Care or Inpatient Care (Children 6–59 months) (F1)						
Referred to higher care level (Children 6–59 months) (F2)						
TOTAL EXITS (Children 6–59 months) (G) (G=E+F1+F2)						
Total end of week (Children 6–59 months) (H) (H=A+D-G)						End of Month:
SEX OF NEW CASES ADMITTED (Children 6–59 months)	MALE					
	FEMALE					

*Infants < 6 months, children ≥ 5 years, adolescents and adults (B4) are tallied and monitored separately, for planning purposes.



CMAM SAM Reporting Template

Author:

Date:

Reporting Period:

Locality/State:

Population Estimate:

Starting Date of CMAM Services:

Number of Outpatient Care sites		Number of Inpatient Care sites	
Number of communities involved in community outreach		Number of community outreach workers trained and active	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Number of new admissions</p> </div> <div style="width: 45%;"> <p>Number under treatment</p> </div> </div>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Percentage cured</p> </div> <div style="width: 45%;"> <p>Percentage died</p> </div> </div>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Percentage defaulted</p> </div> <div style="width: 45%;"> <p>Percentage non-recovered</p> </div> </div>			
<p>KEY INDICATORS CHILDREN 6–59 MONTHS</p>	<p>List major reasons for defaulting (Circle: assessed or estimated):</p>	<p>List major reasons for non-recovery (Circle: assessed or estimated):</p>	
<p>KEY INDICATORS: OTHER AGE GROUPS</p>	<p>Number of admissions infants under 6 months</p>	<p>Number of discharges infants under 6 months</p>	
	<p>Number of admissions children 5 years and older, adolescents, adults</p>	<p>Number of discharges children 5 years and older, adolescents, adults</p>	

Summary on Performance and Key Issues Encountered:

Action for Improvement and/or Resolving Encountered Problems:

Brief Summary of Achievements:

Success Stories and/or Lessons Learned:

Add figures (automatically generated in the database):

- Figure (graph) with trends of key performance and output indicators:
 - Bars with total admissions, total discharges (in y axis, number of children)
 - Line with total under treatment (in y axis, number of children) (x axis, months [or weeks during emergencies])
- Figure (pie chart) with distribution of discharge categories (cured, died, defaulted, non-recovered)

Add figures whenever the additional information is available (optional):

- Figure (pie chart) with distribution of admissions per criteria (oedema, MUAC < 115 mm, WFH < -3 z-score)
- Figure (bar graph) for monthly average length of stay and average weight gain per category of admission criterion



Bilateral Pitting Oedema

[Under 5]

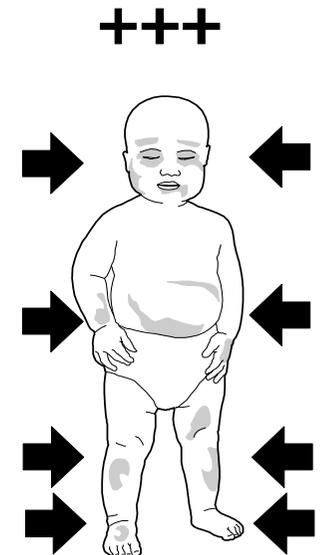
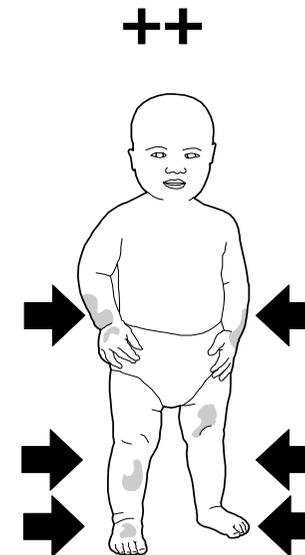
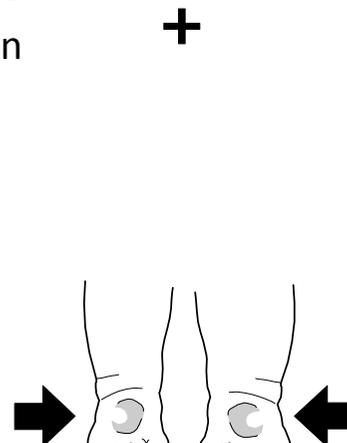
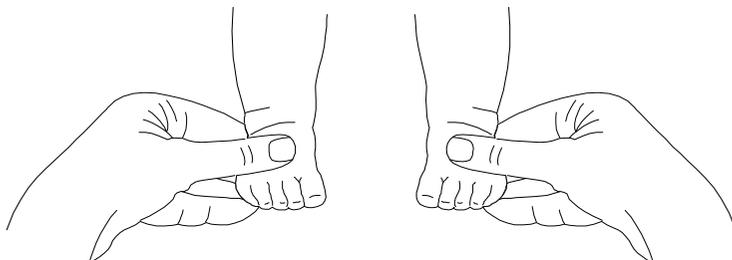
* *Bilateral pitting oedema always starts in both feet. Oedema in only one foot is not of nutritional origin.*

1 Hold the child's feet and press your thumbs on top of both feet. Count to 3 and then lift your thumbs. If no pit shows or if a pit only shows in one foot, the child does not have bilateral pitting oedema. If a pit shows in both feet, go to Step 2.

2 Continue the same test on the lower legs, hands, and lower arms. If no pitting appears in these areas, then the child is said to have mild (grade +) bilateral pitting oedema. (Mild bilateral pitting oedema only shows in the feet.) If pitting appears in these areas, go to Step 3.

3 Look for swelling in the face, especially around the eyes. If no swelling appears in the face, then the child is said to have moderate (grade ++) bilateral pitting oedema. If swelling appears in the face, the child is said to have severe (grade +++) bilateral pitting oedema.

4 If child has oedema, have a second person repeat the test to confirm results.





MUAC (without aid)

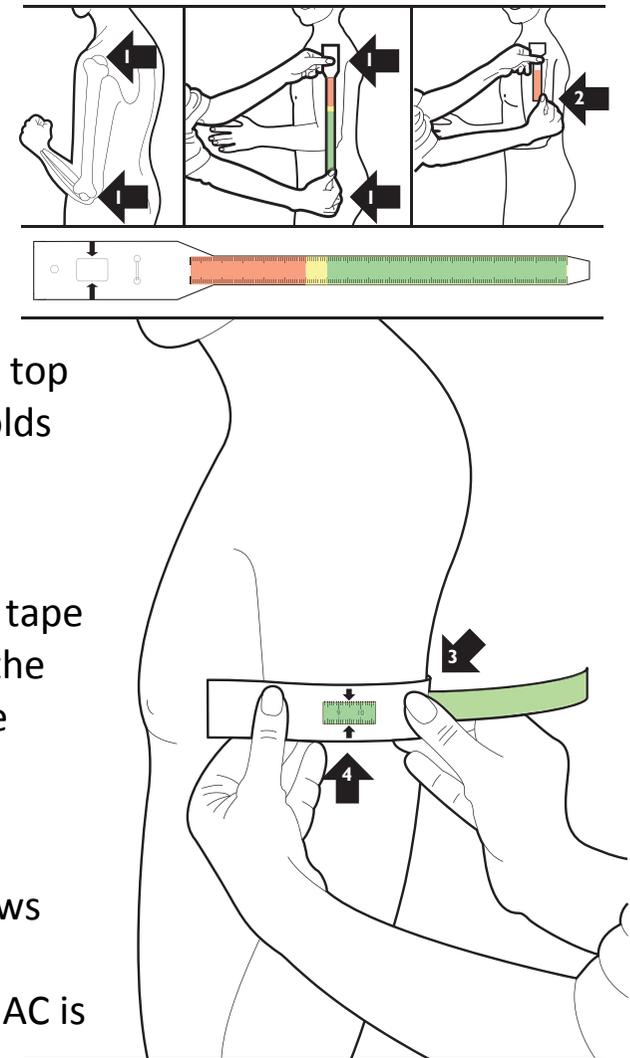
[6–59 months]

1 MUAC is always taken on the left arm. Have the child bend his/her left arm at a 90° angle. Find the top of the shoulder and the tip of the elbow. Put the top edge of the MUAC tape on the top of the shoulder and place the right thumb on the tape where it meets the tip of the elbow (endpoint).

Find the middle of the upper arm by carefully folding the endpoint to the top edge of the tape and place the left thumb on the point where the tape folds (midpoint).

With the child's arm relaxed and falling alongside his/her body, wrap the tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.

Read the measurement from the middle window, exactly where the arrows point inward. Depending on the tape used, the measurement will be in millimetres (mm), centimetres (cm), or in colour (red, yellow, green). MUAC is recorded with a precision of 1 mm (0.1 cm).

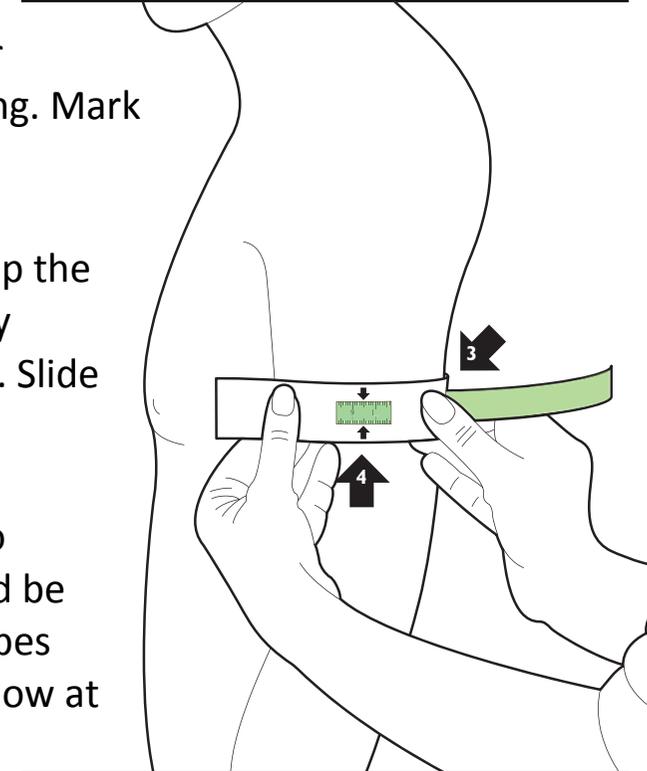
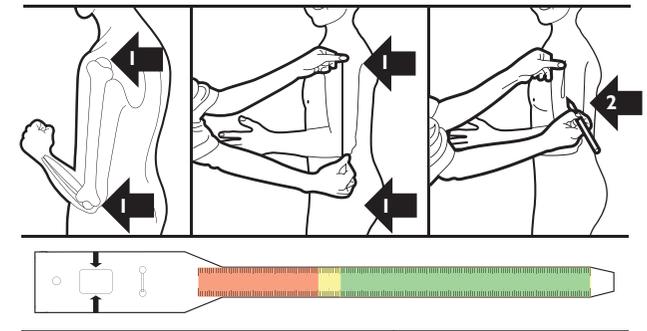




MUAC (with pen & string)

[6–59 months]

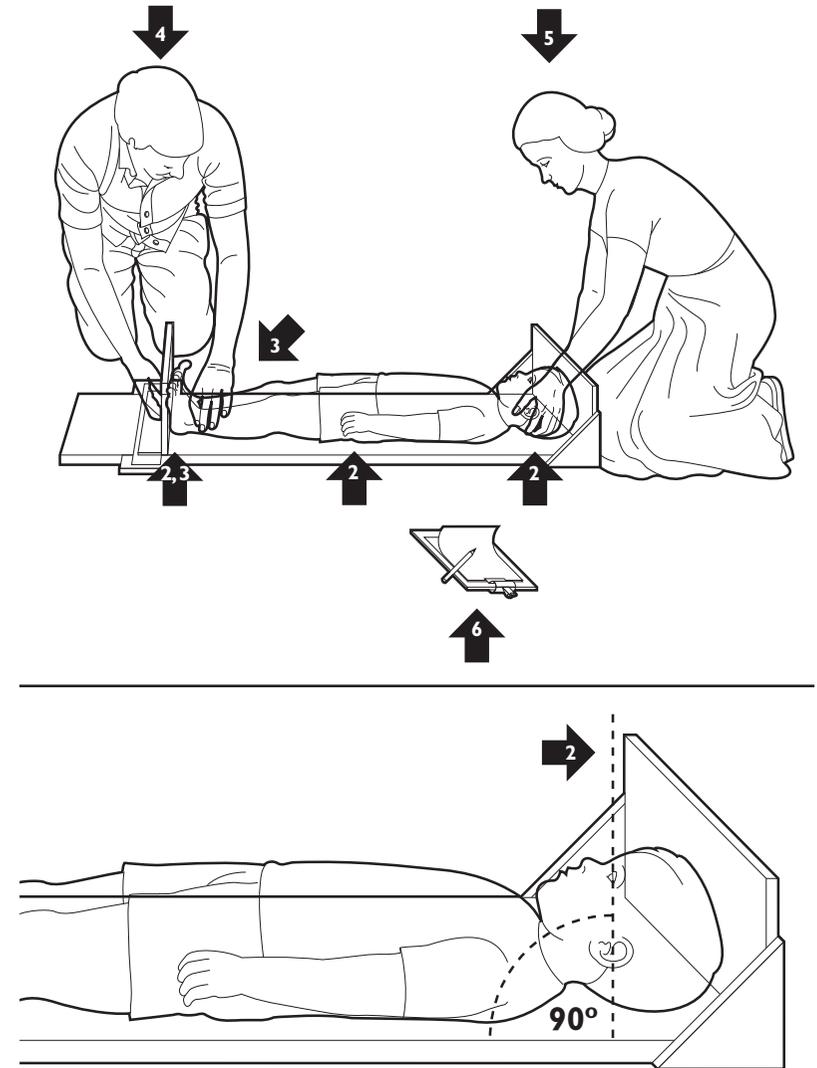
- 1** MUAC is always taken on the left arm. Have the child bend his/her arm at a 90-degree angle. Find the top of the shoulder and the tip of the elbow. Hold one end of a piece of string at the top of the shoulder and hold the string where it meets the tip of the elbow (endpoint).
- 2** Fold the endpoint up to the end of the string on top of the shoulder and place the left thumb on the point of the folded ends of the string. Mark the midpoint with a pen.
- 3** With the child's arm relaxed and falling alongside his/her body, wrap the MUAC tape around the arm at the midpoint. There shouldn't be any space between the skin and tape, but don't wrap the tape too tight. Slide the end of the tape through the small opening.
- 4** Read the measurement from the middle window exactly where two arrows point inward. For numbered tapes, the measurement should be recorded with a precision of 1 millimetre (mm). For three-colour tapes (red, yellow, green), record the colour that shows through the window at the point the two arrows indicate.





Height Using Length Board [Under 2 years **OR**, if age is not known, height less than 87 cm, **OR** 2 years or older or at least 87 cm tall but unable to stand]

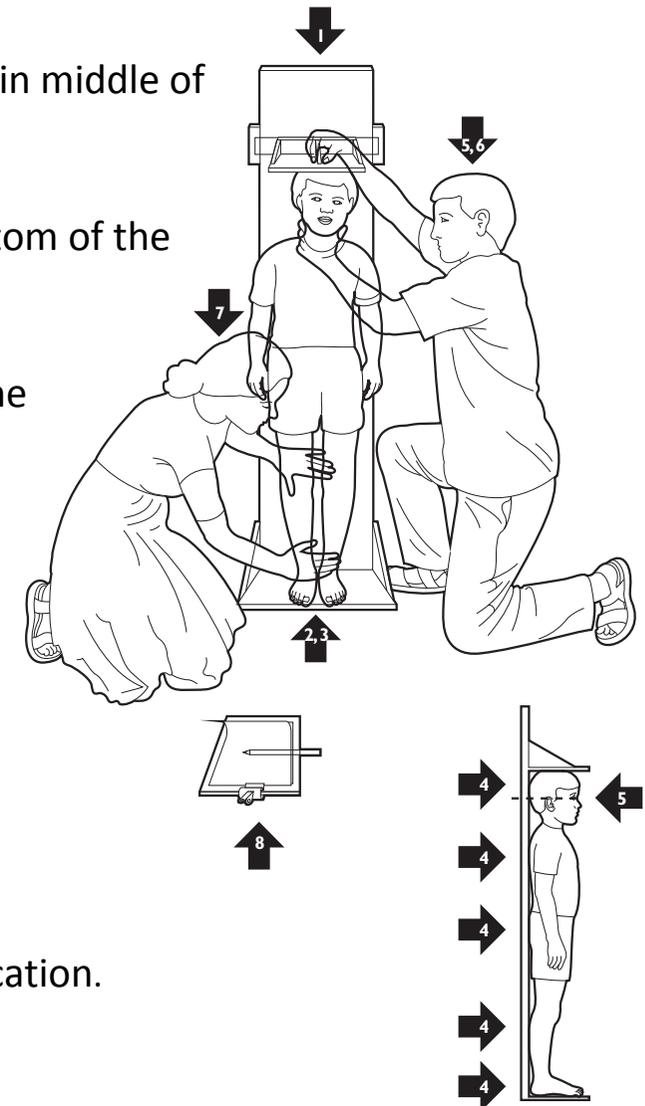
- 1 Place height board on the ground and remove child's shoes.
- 2 Place child on his/her back in middle of board, head facing straight up, arms at child's sides and feet at 90° angles to board.
- 3 While holding child's ankles or knees, move sliding board up against bottom of child's feet.
- 4 Take measurement to nearest 0.1 cm and read out loud.
- 5 The assistant, while holding the child's head in place, repeats the measurement for verification.
- 6 Measurer records height to nearest 0.1 cm. If child is 2 years or older or is 87 cm or greater while standing up, subtract 0.7 cm from measurement.





Height Using Height Board [2 years or older **OR** height 87 cm or greater **AND** able to stand]

- 1 Remove child's shoes and place him/her on height board, standing upright in middle of board with arms at his/her sides.
- 2 Child's feet should be close together with heels and soles touching the bottom of the board (that is, not standing tiptoe).
- 3 The back of the child's ankles and knees should be firmly pressed toward the board.
- 4 The child should stand straight, with heels, back of legs, buttocks, shoulders and head touching the back of the board.
- 5 Measurer holds child's head straight. The child's line of vision should be parallel to the floor.
- 6 Measurer reads measurement out loud to nearest 0.1 cm.
- 7 Assistant, holding child's legs and feet, repeats the measurement for verification.
- 8 Measurer records height to nearest 0.1 cm.





Tips for Weighing a Child or Infant

- ✓ Never weigh a child without explaining the procedure to the caregiver.
- ✓ Children should be weighed and completely naked only in the presence of the caregiver. Have the caregiver remove the child's clothes.
- ✓ Put a soft cloth or the child's wrapping on the scale to protect the child from the hard and potentially cold surface.
- ✓ Read the child's weight when the child is not moving. The child should remain still for the weighing.
- ✓ Scales must be cleaned and re-zeroed after each weighing.
- ✓ Infants under 6 months are weighed using an infant scale with of a 10-gram precision



Weight Using a Solar Electronic Scale

[6–59 months]

* 'Tared weighing' means that the scale can be reset to zero ('tared') with the person just weighed still on it. Stress that the caregiver must stay on the scale until his/her child has been weighed in her arms.

1 Be sure that the scale is placed on a flat, hard, even surface. Since the scale is solar powered, there must be enough light to operate the scale.

2 To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

3 Check to see that the caregiver has removed his/her shoes. You or someone else should hold the naked child wrapped in a blanket.

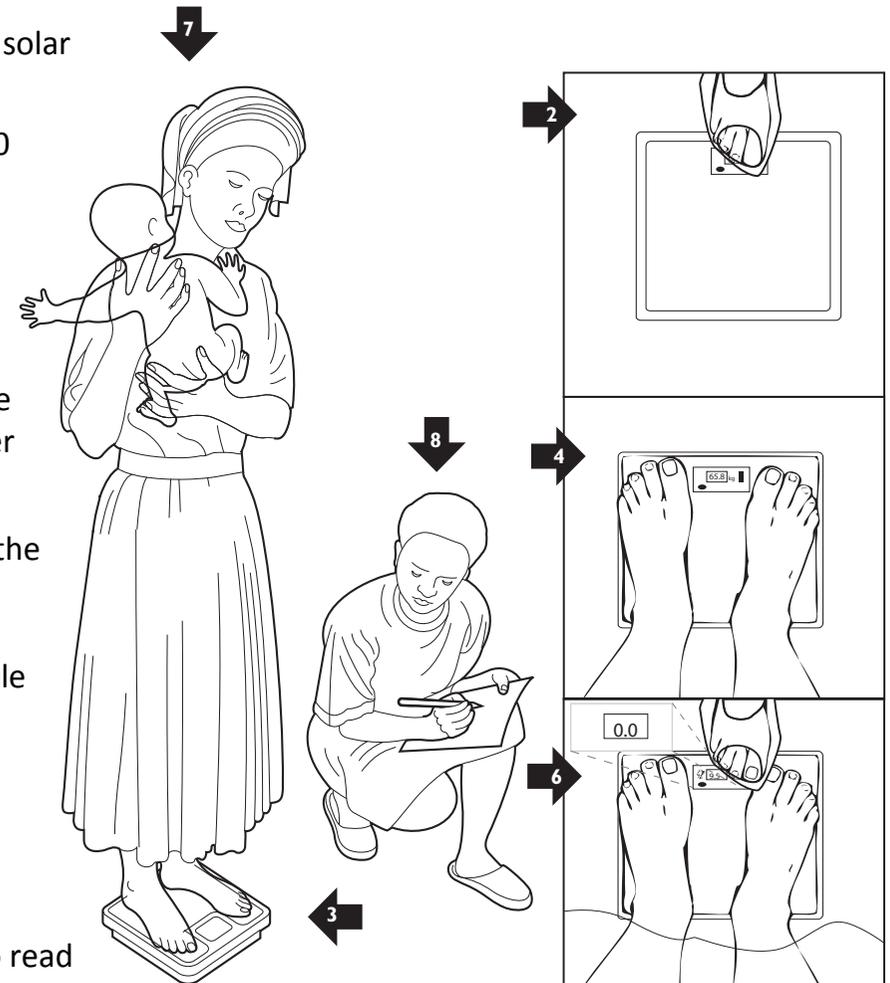
4 Ask the caregiver to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The caregiver's clothing must not cover the display or solar panel.

5 Remind him/her to stay on the scale even after his/her weight appears, until the child has been weighed in his/her arms.

6 With the caregiver still on the scale and his/her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of an adult and a child and the number 0.0.

7 Gently hand the naked child to the caregiver and ask him/her to remain still.

8 The child's weight will appear on the display. Record the weight. Be careful to read the numbers in the correct order (as though you were viewing while standing on the scale rather than upside-down).



Adapted from "How to use the UNISCALE" UNICEF, 2000 and "Weighing a Child Using a Taring Scale" WHO, 2006.



Weight Using Hanging Scale (Pants)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measurement does not match that of the known weight to within 10 grams, the springs must be changed or the scale should be replaced.

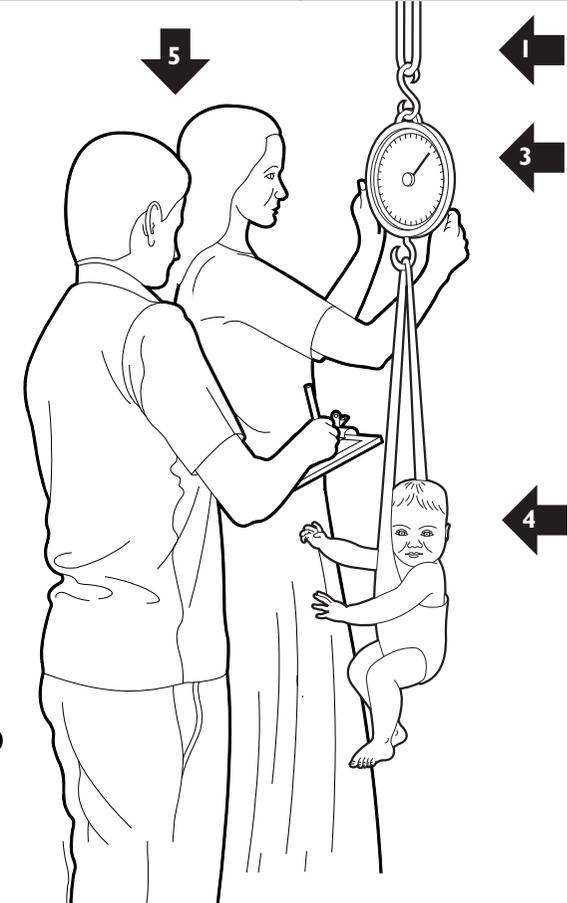
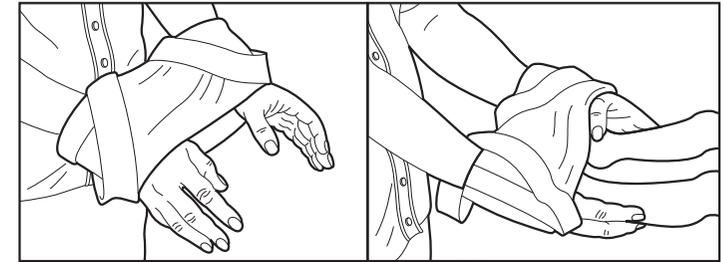
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the weighing pants hooked on the scale.

4 Place child in weighing pants and let child hang freely, touching nothing. Make sure the child is safely in the weighing pants, with one arm in front and one arm behind the straps to help maintain balance.

5 When arrow is steady, measurer reads child's weight in kg at **eye level** to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using Hanging Scale (Bucket)

[6–24 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (for example, 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams, the springs must be changed or the scale should be replaced.

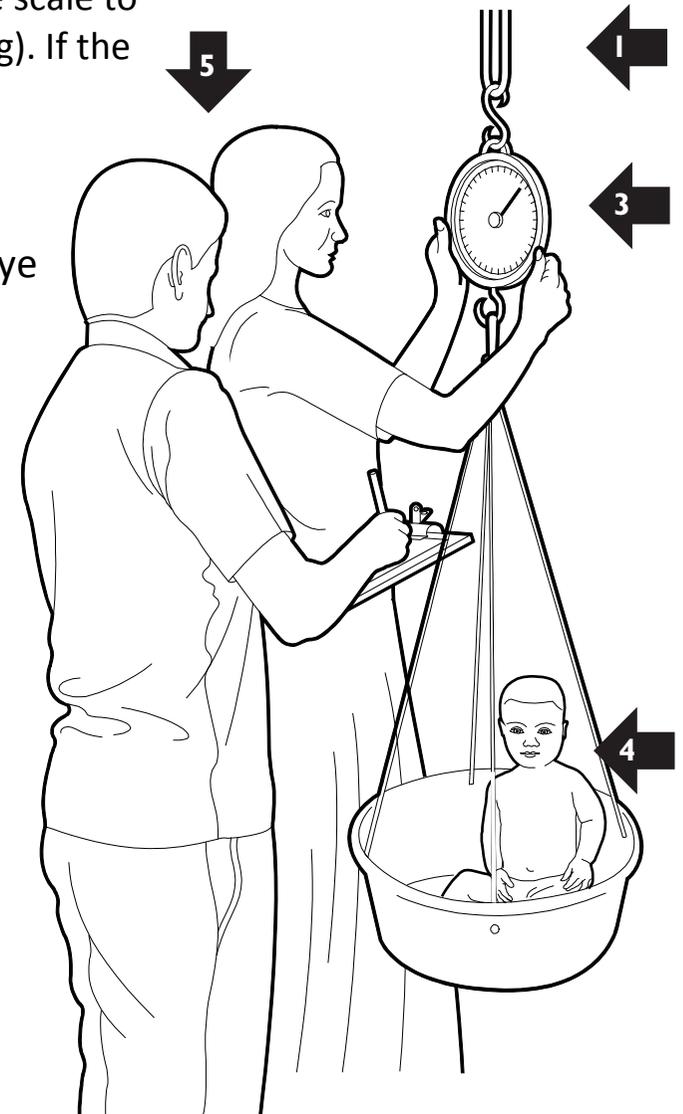
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer. Put a soft cloth or the child's wrapping in the bucket.

2 Before weighing the child, have the caregiver take all the child's clothes off.

3 Make sure the scale arrow is at 0 ('zero the scale') with the bucket hooked on the scale.

4 Place child in weighing bucket.

5 When arrow is steady, measurer reads child's weight in kg at **eye level**. The assistant repeats it for verification and records it to nearest 100 g (for example, 5.2 kg).





Weight Using Hanging Scale (Cloth)

[6–59 months]

* The scale should be checked daily against a known weight. To do this, set the scale to zero and weigh objects of known weight (e.g., 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams the springs must be changed or the scale should be replaced.

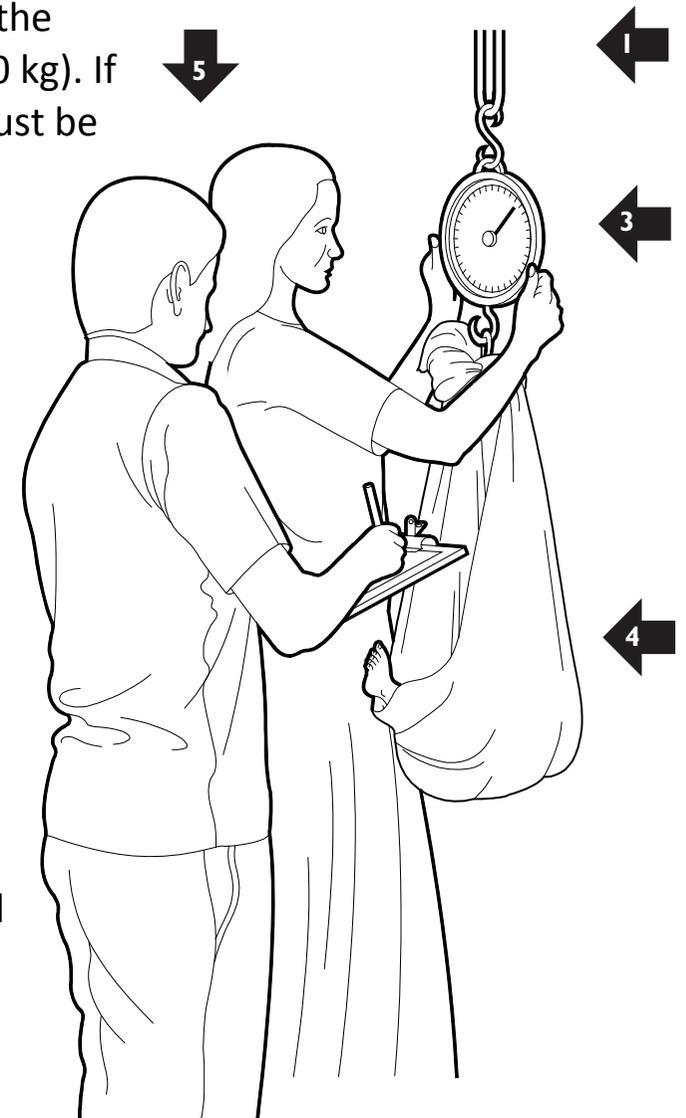
1 The scale can be hooked to a rope on the ceiling or stand in a clinic, at eye level of the measurer.

2 Before weighing the child, have the caregiver take all his/her clothes off.

3 Make sure the weighing scale arrow is at 0 (zero the scale) each time with the hammock or cloth that will be used hooked on the scale.

4 Place child in hammock or cloth, hook it on the scale, and let child hang freely, touching nothing. Make sure the child is safely in the hammock or cloth.

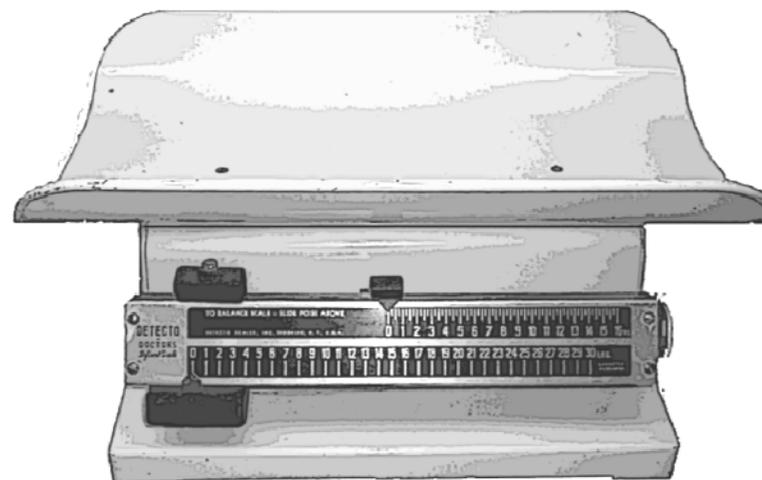
5 When arrow is steady, measurer reads child's weight in kg at eye level and to the nearest 100 g (for example, 6.4 kg). The assistant repeats it for verification and records it.





Weight Using an Infant Beam Scale [Infants under 6 Months]

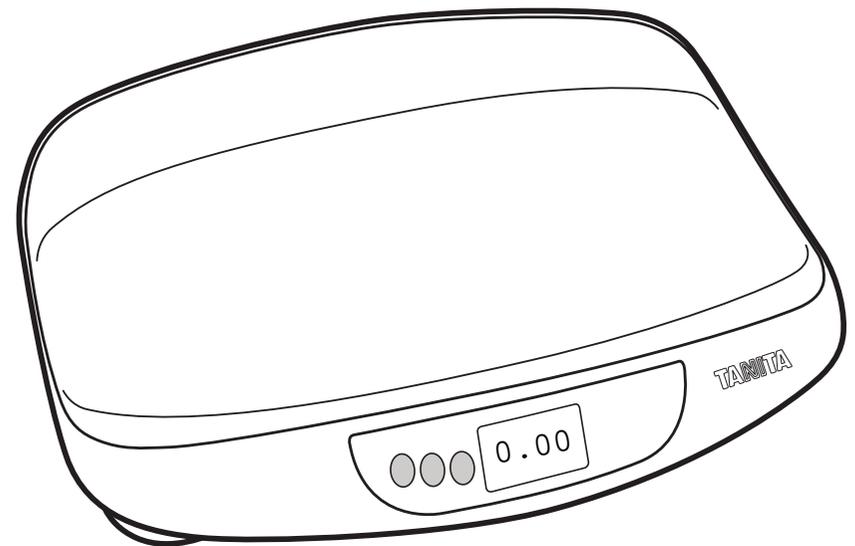
- 1 Unlock the beam, put a soft cloth or the infant's wrapping on the scale, and zero the scale (i.e., make sure that the end of the beam is not touching either the top or the bottom of the hole it fits through).
- 2 Have the caregiver remove the infant's clothes and put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale.
- 3 Move the weights along the beam until the end of the beam is not touching either the top or the bottom of the hole it fits through.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 2 kg 220 g).
- 5 Lock the beam and remove the infant.
- 6 Clean and re-zero the scale.





Weight Using an Infant Bench Scale [Infants under 6 Months]

- 1 Have the caregiver remove the infant's clothes and hold the child.
- 2 Put a soft cloth or the infant's wrapping on the scale and turn it on. Wait until the scale shows zeros.
- 3 Within 60 seconds of the scale showing zeros, have the caregiver put the infant on the scale. Advise the caregiver to remain close but not to touch the infant or the scale. The scale will display the infant's weight.
- 4 Read and write down the infant's weight with a 10-gram precision (e.g., 3 kg 470 g).
- 5 Turn off the scale and remove the infant.
- 6 Clean the scale.





Referral Slip Community Screening

Child's Name:

Family Name:

Name of Mother/Caregiver:

Place of Origin:

Referral Health Facility:

Date of Outreach:

Bilateral Pitting Oedema: Yes No

MUAC: mm

Other Findings:

Community Outreach Worker's Name:

Signature:



Home Visit Record

Reason for Home Visit: *Absence* Y N *Defaulter* Y N *Dead* Y N *Non-response to treatment* Y N *Other:*

Registration Number:

Date:

Site:

Community:

Locality:

Child's Name:

Age:

Sex: Male Female

Family Name:

Name of Mother/Caregiver:

Address:

Date of Visit:

Findings:

Community Outreach Worker's Name:

Signature:



Community Outreach Reporting Template

Communities: _____ **Locality/State:** _____

Reporting Period: _____ **Date:** _____

Supervisor/Coordinator Name and Position: _____

CATCHMENT AREA	Number of communities in catchment area:		
	Number of children under 5:		Expected number of children under 5 with SAM:
	Number of CMAM outpatient sites:		Number of CMAM inpatient sites:
HUMAN RESOURCES	Number of community outreach workers that are MOH staff:		Number of community outreach volunteers:
TRAININGS	Number of community outreach workers, including volunteers trained and active:		Number of community representatives oriented:
COMMUNITY MOBILIZATION	Number of communities targeted and involved:		Number of community meetings:
COMMUNITY OUTREACH	Number of community screening sessions conducted:		Number of children with SAM identified and referred for treatment:
	Number of community home visits for problem cases:		Number of community health and nutrition education sessions held:

COVERAGE & SERVICE PROGRESS Coverage of CMAM: _____

Barriers to access and utilization: _____

Causes of death: _____

Reasons for absenteeism and defaulting: _____

Reasons for non-response to treatment: _____

Identified Problems: _____

Action for Improvement and/or Resolving Encountered Problems: _____

Brief Summary of Achievements: _____

Success Stories and/or Lessons Learned: _____



Checklist for Home Visits

Outreach Worker's Name:

Date of Visit:

Name of Child:

Note: If problems are identified, please list any health education or advice given in the space below or on the other side of the page. Return this information to the health facility.

FEEDING	Is the ration of RUTF present in the home? <i>If not, where is the ration?</i>	Yes	No
	Is the available RUTF enough to last until the next Outpatient Care session?	Yes	No
	Is the RUTF being shared or eaten only by the sick child?	Shared	Sick child only
	Yesterday, did the sick child eat food other than RUTF? <i>If yes, what type of food?</i>	Yes	No
	Yesterday, how often did the child receive breast milk? (for children < 2 years)		
	Yesterday, how many times did the sick child receive RUTF to eat?		
	Did someone help or encourage the sick child to eat?	Yes	No
	What does the caregiver do if the sick child does not want to eat?		
	Is clean water available?	Yes	No
	Is water given to the child when eating RUTF?	Yes	No
CARING	Are both parents alive and healthy?	Yes	No
	Who cares for the sick child during the day?		
	Is the sick child clean?	Yes	No
HEALTH	What is the household's main source of water?		
	Is there soap for washing in the house?	Yes	No
	Do the caregiver and child wash hands and face before the child is fed?	Yes	No
	Is food/RUTF covered and free from flies?	Yes	No
	What action does the caregiver take when the child has diarrhoea?		
FOOD SECURITY	Does the household currently have food available?	Yes	No
	What is the most important source of income for the household?		

COMMENTS:



Supervisor's Checklist for Community Outreach

Communities of Health Facility:		Date:	
Community Outreach Worker(s):	QUALITY ¹	Key Problem or Issue	Suggestion for improvement
COMMUNITY MOBILISATION			
Active community mobilisation according to the agreed-to strategies done			
Active information sharing on care done; barriers to access and issues on referral and defaulting discussed; problem solving done			
Respectful attitude and good communication with community members and leaders observed			
ACTIVE CASE-FINDING			
Active case-finding in the community according to the agreed-to strategies done			
New opportunities for active case-finding in the community taken			
Time referral and guidance to access care for new cases done			
HOME VISITS			
Active case-finding, counselling and health and nutrition education done			
Absentees and defaulters followed up on			
Specific counselling for non-responding cases done			
Referral for additional health care if appropriate done			
Home visits checklist used as guidance			
Observation on home visit record marked and shared with Outpatient Care			
Helpful, positive attitude with mothers and children observed			

OTHER REMARKS:

¹ 1 = Done correctly
 2 = Done, or partially done and needs improvement
 3 = Not done



Admission and Discharge Criteria for the Management of Severe Acute Malnutrition in Children under 5

Inpatient Care

Outpatient Care

ADMISSION CRITERIA

CHILDREN 6–59 MONTHS

- Bilateral pitting oedema +++
OR
 Any grade of bilateral pitting oedema with severe wasting (MUAC < 115 mm or WFH < -3 z-score)

OR

- SAM with any of the following medical complications:
- Anorexia, poor appetite
 - Intractable vomiting
 - Convulsions
 - Lethargy, not alert
 - Unconsciousness
 - Hypoglycaemia
 - High fever
 - Hypothermia
 - Severe dehydration
 - Persistent diarrhoea
 - Lower respiratory tract infection
 - Severe anaemia
 - Eye signs of vitamin A deficiency
 - Skin lesion

OR

- Referred from Outpatient Care according to action protocol

INFANTS < 6 MONTHS

(Includes infants with SAM ≥ 6 months and < 4 kg)

- Bilateral pitting oedema

OR

- Visible wasting

CHILDREN 6–59 MONTHS

- Bilateral pitting oedema + or ++
OR
 Severe wasting (MUAC < 115 mm or WFH < -3 z-score)

AND

- Appetite test passed
- No medical complication
- Child clinically well and alert

REFERRAL/DISCHARGE CRITERIA

CHILDREN 6–59 MONTHS

- Referred to Outpatient Care:
- Appetite returned (passed appetite test)
 - Medical complication resolving
 - Severe bilateral pitting oedema decreasing
 - Child clinically well and alert
- (additional criterion for referral for cases of oedema with wasting: bilateral pitting oedema resolved)
- Discharged cured (special cases):
- 15 percent weight gain maintained for 2 consecutive weeks (of admission weight or weight free of oedema) (for cases of wasting and of oedema with wasting)
 - Oedema-free for 2 consecutive weeks
 - Child clinically well and alert

INFANTS < 6 MONTHS

- Discharged cured (for breastfed infants):
- Successful re-lactation and appropriate weight gain maintained (minimum 20 g per day on breastfeeding alone for 5 days) and infant clinically well and alert
 - Oedema-free for 2 consecutive weeks

(See other guidance for non-breastfed infants who are on replacement feeding.)

CHILDREN 6–59 MONTHS

- Discharged cured:
- 15 percent weight gain maintained for 2 weeks (of admission weight or weight free of oedema)
 - Oedema-free for 2 consecutive weeks
 - Child clinically well and alert

Children are referred to receive supplementary feeding if available.