MODULE FOUR

Outpatient Care for the Management of SAM Without Medical Complications

MODULE OVERVIEW

This module introduces participants to the concepts and protocols used in outpatient care for children with severe acute malnutrition (SAM) without medical complications. It provides an overview of admission and discharge processes and criteria, medical treatment and nutrition rehabilitation in outpatient care. Emphasis is placed on the use of an action protocol, which helps health care providers determine which children require referral to inpatient care and which children require follow-up at home.

The module complements the World Health Organization (WHO) protocols for the management of SAM and the WHO training modules for the inpatient management of SAM with medical complications. It is intended to be used alongside national guidelines and national treatment protocols for the management of SAM and *Community-based Therapeutic Care (CTC): a Field Manual*.

The module also includes a field visit where participants will practice assessing and admitting a child with SAM without medical complications to outpatient care and assessing and treating a child in an outpatient care follow-on session. Participants will also have the opportunity during this field visit to practice the skills covered in **Module 2. Defining and Measuring Acute Malnutrition**.

OUTPATIENT CARE FOR THE MANAGEMENT OF SAM WITHOUT MEDICAL COMPLICATIONS: CLASSROOM

LEARNING OBJECTIVES	HANDOUTS AND EXERCISES
1. Describe Outpatient Care for the Management of SAM Without Medical Complications	PowerPoint: Overview of CMAM from Module 1 (optional)
2. Describe Admission Criteria in Outpatient Care	Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria Exercise 4.1 Outpatient Care Admission
3. Describe Process for Admissions and Outpatient Care Follow-On Sessions	Handout 4.3 Outpatient Care: Admission Process Handout 4.4 Outpatient Care Treatment Card Handout 4.5 RUTF Ration Card Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card Exercise 4.2 Outpatient Care Treatment Card and RUTF Ration Card
4. Explain Medical Treatment for the Management of Children With SAM Without Medical Complications in Outpatient Care	Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference)
5. Explain Nutrition Rehabilitation for the Management of SAM Without Medical Complications in Outpatient Care	Handout 4.11 Nutrition Rehabilitation and RUTF
6. Describe the Key Messages for Mothers/Caregivers Used in Outpatient Care	Handout 4.12 Key Messages for Individual Counselling at Outpatient Care
7. Recognising When Further Action is Needed: Referral to Inpatient Care and Follow-Up Home Visits	Handout 4.13 Outpatient Care Action Protocol Handout 4.14 Referral to Inpatient Care or Follow-Up Home Visits Handout 4.15 Referral Slip Exercise 4.3 Identifying Children Who May Need Follow-Up Home Visits or Referral to Inpatient Care
8. Explain Discharge Criteria and Procedures	Handout 4.16 Outpatient Care: Discharge Criteria Handout 4.17 Discharge Criteria and Exit Categories for CMAM Exercise 4.4 Partially Completed Outpatient Care Treatment Cards
9. Describe Linkages Between Outpatient Care and Other Services, Programmes and Initiatives	Handout 1.12 Integrating CMAM into Routine Health Services at the District Level
Wrap-up and Module Evaluation	Handout 4.18 Essentials of Outpatient Care for SAM Without Medical Complications Optional Exercise 4.5 Outpatient Care Admissions Role Play

MATERIALS

- Mid-upper arm circumference (MUAC) tapes (numbered) and weighing scale
- Packets or pots of ready-to-use therapeutic food (RUTF)
- Napkins (for sampling RUTF)
- Scissors
- Flip charts
- Markers
- Masking tape
- *Community-based Therapeutic Care (CTC): a Field Manual*
- Outpatient care treatment cards
- RUTF ration cards
- Referral slips from outreach workers
- Projector (optional)
- PowerPoint from Module One (optional)

ADVANCE PREPARATION

- Review national guidelines and protocols for the treatment of SAM in the country where the training is being conducted. Determine what age and MUAC criteria are used for admission and decide to either adopt or change them for the training. Determine whether weight-for-height (WFH) is required for admission. If WFH is not required, use only the bilateral pitting oedema and MUAC criteria during the training. If WFH is required, include it in the training and use the tables for the WFH z-scores of the WHO standards (gender specific) or for WFH as a percentage of the median of the National Centre for Health Statistics (NCHS) references (sexes combined), as appropriate.
- Prepare sets of laminated cards with community-based management of acute malnutrition (CMAM) admission and discharge criteria, action protocol, medical treatment and nutrition rehabilitation protocols.
- Prepare a chart of national protocols for the prevention and treatment of Vitamin A deficiency, SAM first-line antibiotic treatment, antihelminth and malaria treatments.
- Obtain local versions of outpatient care treatment cards and RUTF ration cards if possible or use the standard cards.
- If optional **Exercise 4.5 Outpatient Care Admissions Role Play** is done, make cards with the roles' descriptions as well as copies of blank outpatient care treatment cards, blank RUTF ration cards, referral slips from outreach workers indicating red MUAC, and **Handout 4.11 Nutrition Rehabilitation and RUTF** (specifically the section on **RUTF Ration**). Also, make sure to have MUAC tapes and a doll available.

MODULE DURATION: SIX HOURS IN CLASSROOM; THREE-DAY FIELD PRACTICE

Note: Depending on the needs of their audience(s), trainers may choose to skip or spend more or less time on certain learning objectives and activities. The module duration is an estimate of the time it takes to complete all the learning objectives and activities.

LEARNING OBJECTIVE 1:
DESCRIBE OUTPATIENT CARE FOR THE MANAGEMENT OF SAM WITHOUT MEDICAL COMPLICATIONS

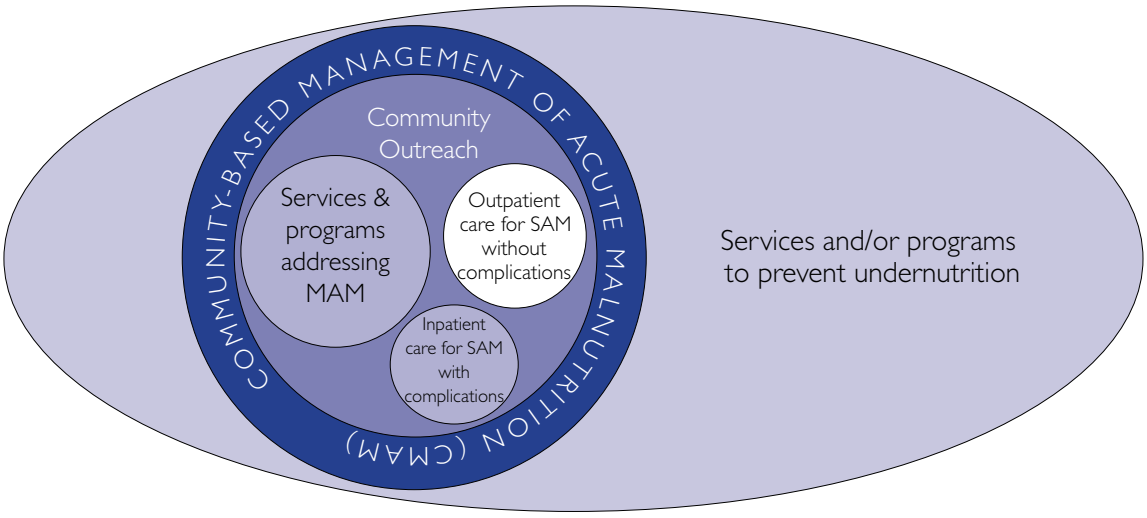
If necessary, review **Module One PowerPoint** presentation slides 48 through 53 on outpatient care for the management of SAM without medical complications.

GROUP DISCUSSION: COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION. Draw **Figure 1** on the flip chart. Ask participants:

1. What is outpatient care for SAM? What does it entail?
2. Who receives outpatient care for SAM?
3. How does outpatient care for SAM without medical complications differ from inpatient care for SAM with medical complications?

Discuss and fill in gaps.

FIGURE 1. CORE COMPONENTS OF CMAM



LEARNING OBJECTIVE 2:
DESCRIBE ADMISSION CRITERIA IN OUTPATIENT CARE

Become familiar with **Handout 4.1 Admission Criteria and Entry Categories for CMAM**, **Handout 4.2 Outpatient Care: Admission Criteria**, and Exercise 4.1 Outpatient Care Admission.

BRAINSTORM: ADMISSION CRITERIA FOR OUTPATIENT CARE. Ask participants to name the characteristics of children who should be admitted to outpatient care (i.e. children 6-59 months, have SAM, have no medical complications, have an appetite). Write responses on the flip chart. If not named by the participants, coach that there are a few additional categories of children who should be admitted:

- Children above 6 months of age with SAM and medical complications whose mother/caregiver refuses inpatient care despite advice. The child will require follow-up home visits and close monitoring while in outpatient care.
- Children who do not meet admission criteria but whom a health care provider has determined should be admitted, such as children over 5 years old with bilateral pitting oedema or who are visibly severely wasted.
- Children whose medical complications have resolved in inpatient care and have been referred to outpatient care to complete their nutrition rehabilitation.
- Children who are recuperating from SAM and who return after defaulting (discharged after being absent for three consecutive sessions) and need to continue their treatment.

Refer participants to **Handout 4.1 Admission Criteria and Entry Categories for CMAM Admission**. Note that the focus of this module will be on the centre column of the reference table. Walk participants through the information and answer any questions. Refer participants to **Handout 4.2 Outpatient Care: Admission Criteria** for future reference.

PRACTICE: ADMISSION CRITERIA FOR OUTPATIENT CARE. Form working groups of three to four people. Distribute **Exercise 4.1 Outpatient Care Admission.** Ask each working group to use the information provided in the exercise to decide whether the sample children should be admitted to outpatient care and to explain why or why not. Have groups share their answers in plenary. Discuss and fill in gaps, referring to **Exercise 4.1 Outpatient Care Admission answer sheet** (on the next page).

LO.2

EXERCISE 4.1 OUTPATIENT CARE ADMISSION (WITH ANSWERS)

Note: In countries where presence of bilateral pitting oedema and MUAC are used for admission, adjust chart to remove information on WFH z-score (WHO) or as a percentage of the median (NCHS).

	Age (months)	Appetite	Bilateral Pitting Oedema	MUAC in mm	WFH z-score (WHO)	WFH as a percentage of the median (NCHS)	Admission to outpatient care?
Child 1	7	Yes	No	102	-3 ≤ x <-2	70% ≤ X <80%	**YES,** based on MUAC and child has appetite
Child 2	24	Yes	No	112	x <-3	X < 70%	**YES**, based on WFH and child has appetite (Note: If only MUAC is used, WFH would not be known and child would not be admitted to outpatient care because MUAC > 110)
Child 3	20	Yes	No	98	x <-3	X < 70%	**YES** based on MUAC **YES** based on WFH and child has appetite
Child 4	16	Yes	++	117	-3 ≤ x <-2	70% ≤ X <80%	**YES** because child has bilateral pitting oedema grade ++ and child has appetite
Child 5	36	Yes	+	115	-3 ≤ x <-2	70% ≤ X <80%	**YES** because child has bilateral pitting oedema grade + and child has appetite
Child 6	12	No	No	95	x <-3	X < 70%	**NO** because child has SAM and has no appetite; refer to inpatient care
Child 7	50	Yes	No	102	x <-3	X < 70%	**YES** based on MUAC **YES** based on WFH and child has appetite
Child 8	45	Yes	No	111	x <-3	X < 70%	**NO** if MUAC only **YES** based on WFH and child has appetite
Child 9	7	Yes	No	107	-3 ≤ x <-2	70% ≤ X < 80%	**YES** based on MUAC and child has appetite
Child 10	5	No	No	104	x <-3	X < 70%	**NO,** infant with SAM (very low WFH), refer to inpatient care

LEARNING OBJECTIVE 3:
DESCRIBE PROCESS FOR ADMISSIONS AND OUTPATIENT CARE FOLLOW-ON SESSIONS

Become familiar with **Handout 4.3 Outpatient Care: Admission Process**, **Handout 4.4 Outpatient Care Treatment Card**, **Handout 4.5 RUTF Ration Card**, **Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card**, and **Exercise 4.2 Outpatient Care Treatment Card and RUTF Ration Card**.

PARTICIPATORY LECTURE: ADMISSION PROCESS FOR OUTPATIENT CARE. Refer participants to the overview of the outpatient care admission process in **Handout 4.3 Admission Process for Outpatient Care** Walk participants through the steps, emphasizing the important considerations they need to take into account. Respond to questions.

PRACTICE: FILLING OUT A OUTPATIENT CARE TREATMENT CARD AND RUTF RATION CARD. Distribute a local outpatient care treatment card if one is available. Otherwise, use **Handout 4.4 Outpatient Care Treatment Card**. Note that ALL children admitted to CMAM at the outpatient care site receive an outpatient care treatment card, including those being referred to inpatient care. Explain the general column and row details on the outpatient care treatment card and the information needed to fill one out. Review the content below and on **Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card**.

- Admission information provided on the outpatient care treatment card includes:
  - Name, age and sex of child, name of parents, place of origin
  - Date of admission, admission characteristics
  - Name of health facility with outpatient care site
  - Registration number
  - General food distribution access
  - Anthropometry upon admission, admission criteria examined
  - Medical history
  - Physical examination
  - Routine admission medication
  - Other medication

- Follow-up information provided on treatment card includes:
  - Anthropometry
  - Medical history
  - Physical examination
  - RUTF appetite test
  - Number of RUTF packets provided
  - Treatment outcome
  - Action taken

Refer participants to **Handout 4.5 RUTF Ration Card** and review the information found on there. Ask participants to form pairs and pass out copies of the Outpatient Care Treatment Cards and RUTF Ration Cards. Have participants complete **Exercise 4.2: Outpatient Care Treatment Card and RUTF Ration Card**.

BRAINSTORM: WEEKLY SESSIONS AT OUTPATIENT CARE. Referring back to the flow chart in **Handout 4.3**, ask participants to suggest which activities and procedures occur in outpatient care follow-on sessions. (Answer: All activities and procedures should be included except for assigning a registration number, which occurs only at admission, and measuring height, which occurs only once per month if WFH is used).

LO.3

Emphasize that during each session, it is essential to determine whether referral or follow-up home visits are necessary and explain the following points:

- The mother/caregiver and child should return to a heath facility that provides outpatient care for SAM without medical complications on a weekly basis. If there is a problem with attendance due to distance or other reasons, it might be necessary to ask the mother/caregiver to come to outpatient care every two weeks; if this is the case the mother/caregiver should receive a two-week supply of RUTF.

- Bilateral pitting oedema is assessed and MUAC and weight are taken at each weekly outpatient care follow-on session. Height is taken once per month if it is necessary to calculate WFH z-score (WHO standards) or WFH as a percentage of the median (NCHS references) in order to reassess admission.

- The appetite test is done at every session.

- A nutrition and medical assessment (i.e. anthropometry, medical history, physical examination) is done at every outpatient care follow-on session.

- Complete doses of routine medicines are given according to routine medical protocols (this is covered in **Learning Objective 4**).

- An outpatient care action protocol is followed to determine whether referral or a follow-up home visit is needed (this is covered in **Learning Objective 7**).

- Additional medications given during outpatient care follow-on sessions should be noted on the outpatient care treatment card.

- RUTF is provided according to the child's weight, and the mother/caregiver is counselled on its use.

- The mother/caregiver is asked whether the child has eaten all the RUTF. If there are some packets left over from the previous week, the health care provider reduces the amount of RUTF given by that number of packets. For example, if the mother/caregiver has three packets left from a 14-packet ration, 11 packets are provided for the next week. The health care provider also should collect empty RUTF packets.

- The health care provider completes the outpatient care treatment card and RUTF ration card.

LEARNING OBJECTIVE 4:
EXPLAIN MEDICAL TREATMENT FOR THE MANAGEMENT OF CHILDREN WITH SAM WITHOUT MEDICAL COMPLICATIONS IN OUTPATIENT CARE

Become familiar with **Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care**, Handout 4.8 Routine Medicines for SAM in Outpatient Care, **Handout 4.9 Supplemental Medicines for SAM in Outpatient Care**, and Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference).

PARTICIPATORY LECTURE: ROUTINE MEDICAL TREATMENT IN OUTPATIENT CARE. Refer participants to **Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care** and discuss, emphasising:

- When children should NOT receive Vitamin A or malaria treatment
- Why iron and folic acid are NOT given routinely
- Which treatments are given during the child's first session at outpatient care (i.e., amoxicillin, Vitamin A, malaria testing or treatment if appropriate) and which are given later (e.g., deworming, measles vaccination if necessary, treatment for anaemia if necessary)

Answer any questions and refer participants to **Handout 4.8 Routine Medicines for SAM in Outpatient Care.** In plenary, explain the details of the medical treatment protocols as they appear in each column and row. Relay to participants any adaptations/ differences that should be made in accordance with country-specific national drug protocols.

PRACTICE: ROUTINE MEDICAL TREATMENT OF SAM. Ask participants to form groups of three. On a flip chart, write the basic information of a number of children in outpatient care (below). Ask participants to determine which medications and dosages each child needs based on whether the child is a new case, what medication s/he has already received, his/her medical condition, and his/her age.

- **Patient 1: Girl, age 2 years**
  - New admission
  - Bilateral pitting oedema: grade +
  - Paracheck: Negative
  - Vaccination record: All up to date
  - Vitamin A last given: 4 months ago

  Answer: Give amoxicillin 3 times per day for 7 days; do not give Vitamin A (because of bilateral pitting oedema; it should be given upon discharge); do not give artemisinin-based combination therapy (ACT); do not give measles vaccination (given after 4 weeks)

- **Patient 2: Boy, age 18 months**
  - New admission
  - Bilateral pitting oedema: No
  - Paracheck: Positive
  - Vaccination record: Incomplete
  - Vitamin A last given: 6 months ago

Answer: Give amoxicillin 3 times per day for 7 days; give 200,000 international units (IUs) of vitamin A; give ACT or other antimalarial according to protocol; give measles vaccination on week four or as soon as possible, plus other vaccines as per expanded programme of immunisation (EPI)

LO.4

- **Patient 3: Girl, 15 months**
  - Second visit to outpatient care
  - Bilateral pitting oedema: grade +
  - Paracheck: Negative
  - Vaccination record: Incomplete
  - Vitamin A last given: 4 months ago
  - Amoxicillin last given: Week one on admission

  Answer: Give medendazole or other deworming; give measles vaccination on week four as well as other vaccines as per EPI; do not give Vitamin A until discharge

REVIEW AND REFERENCE: Direct participants to **Handout 4.9 Supplemental Medicines for SAM in Outpatient Care.** Review briefly the supplemental medicines on Handout 4.9 and in what circumstances they would be given. Answer any questions. Direct participants to Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference) to be used for their reference in the future.

LEARNING OBJECTIVE 5:
EXPLAIN NUTRITION REHABILITATION FOR THE MANAGEMENT OF SAM WITHOUT MEDICAL COMPLICATIONS IN OUTPATIENT CARE

Become familiar with **Handout 4.11 Nutrition Rehabilitation and RUTF.**

DEMONSTRATION: TASTING RUTF. Form small groups and distribute one packet of RUTF and napkins to each group. Explain how to open the package and ask participants to taste the RUTF. Ask for any feedback from the groups.

Ask groups to describe what they think the RUTF's ingredients are and then write RUTF's typical composition on a flip chart.

Composition of lipid-based RUTF
25% peanut butter
26% milk powder
27% sugar
20% oil
2% combined mineral and vitamin mix (CMV)

GROUP DISCUSSION: USING RUTF. With participants still in small groups, ask them to discuss:

- How RUTF's composition compares with F100
  (similar in composition but RUTF has iron and is about five times more energy-nutrient dense)
- Why RUTF can be used for outpatient care
  (it can be eaten at home and because it doesn't require cooking or mixing with water prevents growth of bacteria)

Discuss further in plenary, fill in any gaps, and answer any questions.

PARTICIPATORY LECTURE: NUTRITION REHABILITATION AND RUTF.
Direct participants to **Handout 4.11 Nutrition Rehabilitation and RUTF**. Point out to participants the tables entitled "RUTF Rations in Outpatient Care" dealing with Plumpy'nut and locally produced RUTF in packets and in pots, and explain how to use them. Write different weights on the flip chart then ask participants how many packets or pots to give to a child of each weight.

PRACTICE: DETERMINING RUTF RATION SIZE. Ask participants to regroup into small groups. Ask them to use **Handout 4.11** to determine how much RUTF to give each child in the examples below. Ask for volunteers to write answers on the flip chart. Discuss and fill in gaps.

RUTF Ration Practice

- **Example 1**: 92 g packets of Plumpy'nut are distributed through outpatient care. Child 1 weighs 6.8 kg and comes to outpatient care every two weeks. How much RUTF do you give the child? (Answer: 36 packets)
- **Example 2**: Locally produced pots of RUTF are distributed through outpatient care. Child 2 weighs 9.7 kg and comes to outpatient care weekly. How many pots of RUTF do you give the child? (Answer: 11 pots)
- **Example 3**: Child 3 weighs 7.2 kg and will return to outpatient care next week. How many packets of your locally produced RUTF will you give the child? (Answer: 18 packets)

LEARNING OBJECTIVE 6:
DESCRIBE THE KEY MESSAGES FOR MOTHERS/CAREGIVERS USED IN OUTPATIENT CARE

Become familiar wit**h Handout 4.12 Key Messages for Individual Counselling.**

GROUP DISCUSSION: KEY MESSAGES FOR MOTHERS/CAREGIVERS. Explain to participants that outpatient care includes individual counselling, health and nutrition education, and behaviour change communication (BCC) at each session. The initial counselling session should focus only on a few key messages so that the mother/caregiver clearly understands the practices that are essential to managing SAM in a child. As the child's condition improves, other messages should be given.

In the initial counselling session, health care providers counsel the mother/caregiver with key messages on the following topics:

1) How to feed RUTF to the child
2) When and how to give the medicines to the child
3) When to return to outpatient care
4) Making sure the child is brought to the health facility immediately if his or her condition deteriorates

WORKING GROUPS: DEVELOPING KEY MESSAGES FOR MOTHERS/CAREGIVERS. Ask working groups to write six key messages to give to the mother/caregiver during his/her initial session in outpatient care. Have one group present and the other groups add additional messages. Discuss, clarify and fill in gaps. Also discuss what additional messages would be important in subsequent outpatient care follow-on sessions.

ROLE-PLAY: INDIVIDUAL COUNSELLING. In working groups, have one participant act as a mother/caregiver who has come to outpatient care for the first time and another act as the CMAM counsellor; the rest of the working group's participants should observe. Have the actors practice counselling with the most important key messages. Ask the observers for feedback. Have the mother/caregiver and counsellor switch roles and continue practicing if time allows.

BRAINSTORM: HEALTH AND NUTRITION EDUCATION. Ask participants to think of key health and nutrition topics that should be made a part of individual counselling in outpatient care follow-on sessions. Write answers on the flip chart and fill in any gaps. Possible answers include:

- Hygiene
- Continuation of optimal breastfeeding behaviours (especially with infants and young children ages 6-23 months)
- The importance of frequent and active feeding

- What local foods to give young children (while reinforcing the message that the child in outpatient care MUST finish eating all RUTF before other foods are given)
- Identifying undernutrition (when to bring children to outpatient care)
- Managing diarrhoea and fever
- Recognising danger signs

ROLE PLAY: HEALTH AND NUTRITION MESSAGES. With participants in the same working groups, ask the observers in the role-play above to now break into pairs to play the roles of mother/caregiver and CMAM counsellor. Ask them to practice counselling with health and nutrition messages. Ask observers to provide feedback. Switch roles and continue practicing if time allows.

LEARNING OBJECTIVE 7:
RECOGNISING WHEN FURTHER ACTION IS NEEDED: REFERRAL TO INPATIENT CARE AND FOLLOW-UP HOME VISITS

Review **Handout 4.13 Outpatient Care Action Protocol**, **Handout 4.14 Referral to Inpatient Care or Follow-Up Home Visits**, **Handout 4.15 Referral Slip** and Exercise 4.3 Identifying Children Who May Need Referral to Inpatient Care or Follow-Up Home Visits.

BRAINSTORM: ACTION PROTOCOL FOR REFERRAL AND FOLLOW-UP. Note to participants that an action protocol (in line with integrated management of childhood illness [IMCI] guidelines) has been developed to help health care providers determine:

- Whether children should be referred to inpatient care (e.g., medical complications, no appetite, deteriorating condition)
- Whether children require follow-up visits at home between outpatient care follow-on sessions (e.g., weight loss, deteriorating condition, not eating enough RUTF, absent from outpatient care follow-on session), which may be done by an outreach worker (e.g., community health worker [CHW], volunteer)

In plenary, ask participants to name medical complications that would require referral to inpatient care. Write them on the flip chart. Then ask what medical complications or symptoms might require a follow-up home visit. Refer participants to **Handout 4.13 Outpatient Care Action Protocol** and compare responses on the flip chart to those in the second column of the action protocol. Describe symptoms that would require either referral or follow-up visits (e.g., bilateral pitting oedema +++, weight loss for two consecutive weeks) and ask what action is dictated by the protocol: referral to inpatient care or follow-up home visits. Continue asking questions until participants seem comfortable using the action protocol.

PARTICIPATORY LECTURE: PROCEDURES FOR REFERRING PATIENTS. Explain to participants the inpatient care referral system, use of referral slips, referral to tertiary care and key points related to referring for follow-up home visits. Refer participants to **Handout 4.14 Referral to Inpatient Care or Follow-Up Home Visits**.

PRACTICE: IDENTIFYING AND REFERRING CHILDREN. Direct participants to **Exercise 4.3 Identifying Children Who May Need Referral to Inpatient Care or Follow-Up Home Visits.** Have participants form groups of three or four and ask them to read the descriptions of the children and determine what action to take: referral, follow-up home visit or continuation in outpatient care (see **Exercise 4.3** answers on the next page). Ask participants to refer to **Handout 4.13 Outpatient Care Action Protocol**. Have groups present and explain their answers.

Distribute **Handout 4.15 Referral Slip** and demonstrate how to fill it out using a sample child from **Exercise 4.3** who required inpatient care.

EXERCISE 4.3 IDENTIFYING CHILDREN WHO MAY NEED REFERRAL TO INPATIENT CARE OR FOLLOW-UP HOME VISITS (WITH ANSWERS)

LO.7

CHILD A
Question: Child A is 2 years old, has a MUAC of 109 mm and has been referred by the CHW to CMAM services. On admission, the child refuses to eat the RUTF during the appetite test. You ask his mother/caregiver to move to a quiet area and try again. After a half-hour, the child still refuses to eat the RUTF. During the medical examination, you discover that the child has been vomiting for two days. What action is needed?

Answer: Refer to inpatient care for medical care and support because the child has a serious danger sign of no appetite.

CHILD B
Question: Child B is presented at the outpatient care site with bilateral pitting oedema + and a MUAC of 112 mm. The child has good appetite and no other signs of medical complications. What action is needed?

Answer: Admit to outpatient care as a bilateral pitting oedema admission.

CHILD C
Question: Child C was admitted to outpatient care with a MUAC of 109 mm and weight of 10 kg. The child did not gain any weight in the first three weeks, and by the fourth week has actually lost weight; the child now weighs 9.5 kg. What action is needed?

Answer: This child is not gaining weight after four weeks in the CMAM service; you must refer him/her to inpatient care for further medical assessment and treatment. Ideally this child should have had a follow-up home visit after their outpatient care follow-on session the previous week (after the third week), according to outpatient care action protocols. Refer to the child's outpatient care treatment card (or to the CHW or volunteer who visited the home if nothing was written on the card) to see how the child was doing at home and what the possible reasons for not gaining weight are, based on the follow-up home visit. Discuss this with the mother/caregiver and then refer the child to inpatient care.

CHILD D
Question: Child D is presented at the outpatient care site with bilateral pitting oedema ++ and a MUAC of 108 mm. What action is needed?

Answer: Refer to inpatient care for medical care and support because the child has marasmic kwashiorkor. All marasmic kwashiorkor cases should be referred to inpatient care.

LO.7

CHILD E
Question: Child E is four months old. The grandmother brings the visibly very wasted and dehydrated child to the health facility. On investigation, you find that the mother died shortly after the child was born and that the child has been given cow's milk and tea. What action is needed?

Answer: The child should be referred to inpatient care because s/he is under 6 months old and visibly wasted. The inpatient care facility can stabilise the child with therapeutic milks (F100 diluted) and appropriate medical attention and counselling. Management of acute malnutrition in children under 6 months normally requires a combination of improved or re-established breastfeeding; temporary or longer-term therapeutic feeding; and nutrition, psychological and medical care for mothers. However, since this child's mother has died, the inpatient care staff must discuss feeding options with the grandmother. Options include re-lactation of the grandmother if she is willing (which could be encouraged through supplemental suckling at the inpatient care facility) or asking another woman in the family or community who is lactating to nurse the child. In the absence of other options, the child should be kept on diluted F-100 until s/he reaches 6 months of age. (Reference: Emergency Nutrition Network [ENN] Modules on Infant Feeding in Emergencies [IFE]; the national infant and young child feeding [IYCF] strategy also can be consulted.)

CHILD F
Question: Child F is presented at the outpatient care site with bilateral pitting oedema +++. You want to refer the child to the hospital. Despite your best efforts to persuade the mother, her family refuses to let her take the child to the hospital. What action is needed?

Answer: All cases of bilateral pitting oedema +++ should be referred to inpatient care for medical care and support. However, if a mother/caregiver refuses to take the child to inpatient care, the child should be admitted to outpatient care and receive the systematic treatment. The child should receive regular follow-up home visits during the first weeks to monitor his/her condition, and the mother/caregiver should be encouraged to bring the child back to the health facility if his/her condition worsens at any time. The child should again be referred to inpatient care if his/her condition worsens.

CHILD G
Question: Child G is over 6 months of age and was admitted with MUAC of 109 mm and a weight of 5 kg. The child gained a little weight the first week but has not gained weight for the past two weeks. His medical examination does not show any signs of illness or medical complications.

Answer: The health care provider should talk with the mother/caregiver about how the child is eating the RUTF and observe the appetite test. The health care provider should ask whether the child has had diarrhoea, vomiting or fever and should give counselling. The child also requires a follow-up home visit.

LEARNING OBJECTIVE 8:
EXPLAIN DISCHARGE CRITERIA AND PROCEDURES

Review **Handout 4.13 Outpatient Care Action Protocol** and become familiar with **Handout 4.16 Outpatient Care: Discharge Criteria**, **Handout 4.17 Discharge Criteria and Exit Categories for CMAM** and **Exercise 4.4 Partially Completed Outpatient Care Treatment Cards**.

PARTICIPATORY LECTURE: DISCHARGE FROM OUTPATIENT CARE. Using the text in **Handout 4.16 Outpatient Care: Discharge Criteria** as a reference, review the criteria for discharge from outpatient care, noting that:

- A child is discharged from outpatient care when s/he has recovered from bilateral pitting oedema or low weight and, therefore, no longer has SAM.
- The decision to discharge the child is based on his/her recovery from the initial SAM condition, consistently gaining weight and being clinically well and alert.
- Discharge rules differ based on the criteria used to admit the child.

Refer participants to **Handout 4.17 Discharge Criteria and Exit Categories for CMAM,** directing them to the centre column of the chart, which deals with outpatient care discharge criteria and exit categories.

PRACTICE: USING OUTPATIENT CARE TREATMENT CARDS TO DETERMINE ACTION NEEDED. Direct participants to **Exercise 4.4 Partially Completed Outpatient Care Treatment Cards** and to refer back to **Handout 4.13 Outpatient Care Action Protocol.** Ask them to use the outpatient care action protocol to determine what action is needed (discharge, follow-up home, referral) and to fill out the treatment card accordingly. In plenary, discuss what they decided to do and any issues with completing the outpatient care treatment cards. Discuss and fill in gaps.

EXERCISE 4.4 PARTIALLY COMPLETED OUTPATIENT CARE TREATMENT CARDS (WITH ANSWERS)

EXAMPLE 1: CHILD REQUIRES FOLLOW-UP
The pre-filled outpatient care treatment card (to the fifth week) shows that the child has not gained weight for the past two weeks and weighs 5 kg. At the next outpatient care follow-on session, the child still weighs 5 kg.
(Participants should determine that the child requires a follow-up home visit and fill out the outpatient care treatment card accordingly, noting what action would be taken [inform the outreach worker]).

EXAMPLE 2: CHILD IS READY FOR DISCHARGE
The pre-filled outpatient care treatment card (to the eighth week) shows that the child was admitted with a MUAC of 109 mm. The child has had sustained weight gain for the past two weeks and is clinically well.
(Participants should determine that the child is ready for discharge and fill out the outpatient care treatment card accordingly).

GROUP DISCUSSION: DISCHARGE PROCESS. Ask participants to think through specific actions to take in the process of discharge from outpatient care. Write answers on the flip chart. If participants have trouble naming actions, provide coaching to elicit the responses, below:

- The child is given a ration of RUTF to support transition to family food. (This usually consists of seven packets of Plumpy'nut® or an equivalent amount of locally produced RUTF.)
- The immunisation status is checked and updated.
- Make sure the child has received all required medicines (e.g., Vitamin A upon admission if the child had bilateral pitting oedema. Give the child any vaccinations (e.g., measles, other EPI) that were not provided earlier.
- The mother/caregiver is given guidance on care practices and asked to return if the child's condition deteriorates.

LEARNING OBJECTIVE 9:
DESCRIBE LINKAGES BETWEEN OUTPATIENT CARE AND OTHER SERVICES, PROGRAMMES AND INITIATIVES

Review **Handout 1.12 Integrating CMAM into Routine Health Services at the District Level**. If this content was covered in-depth in **Module One**, it can be briefly reviewed here.

WORKING GROUPS: LINKING OUTPATIENT CARE TO OTHER SERVICES. Note to participants that outpatient care provides a good opportunity to link the management of SAM to other services, including prevention programmes such as growth monitoring and promotion (GMP). Linkages can and should be made with IMCI, national level or nongovernmental organisation (NGO) food distribution programmes, programmes to manage MAM, immunisations and Vitamin A supplementation, family planning, water and sanitation, health and nutrition education, malaria and HIV treatment, food security and livelihoods programmes, and other support services.

Ask participants to form working groups of three or four, by district or region if possible, and distribute cards. Ask each group to write on a card all the health services, programmes and initiatives in their district and explain how these can link to outpatient care (mapping). Ask groups to post their cards and explain their prescribed links to outpatient care. Discuss. Leave the cards posted for the remainder of the training.

WRAP-UP AND MODULE EVALUATION

Become familiar with **Handout 4.18 Essentials of Outpatient Care for SAM Without Medical Complications**.

OPTIONAL ROLE-PLAY: PRACTICING ADMISSION TO OUTPATIENT CARE.
To prepare for this role-play, make copies of blank outpatient care treatment cards, blank RUTF ration cards, referral slips from outreach workers indicating red MUAC, and **Handout 4.11 Nutrition Rehabilitation and RUTF** (specifically the section on **RUTF Ration**). MUAC tapes and a doll are also needed.

Ask for two volunteers: one to play a mother with a small child, and the other to play a nurse in charge of outpatient care. Give each volunteer a card with the description of his/her role, as explained in **Exercise 4.5 Outpatient Care Admissions Role-Play**, below, and after the volunteers have had a few minutes to review their roles, begin the role-play.

Once finished, discuss the role-play in plenary, asking participants to fill in any gaps and to make suggestions on how to keep assessments running smoothly. If time permits, repeat the role-play with other volunteers.

EXERCISE 4.5 OUTPATIENT CARE ADMISSIONS ROLE-PLAY

Mother with a Small Child:

- Use a doll to simulate your child. Give the child a name (if culturally accepted).
- Your child is about 10 months old (you do not know exactly), and is your youngest. You have five other children. Your husband died about a year ago after a long illness.
- You breastfeed her, but you do not feel very well yourself and the baby does not seem to get any milk. You give her maize porridge and sometimes cow's milk, but she does not have much appetite and is now thin.
- She has had runny diarrhoea for the past week, and this is not the first time. Every time she has diarrhoea, you stop breastfeeding.
- The CHW in your village measured your child with a tape and pressed her feet. He told you that your child was thin. He said you must go to the clinic on Thursday, and they would give you some special food and medicine for your child. He gave you a piece of paper with something written on it and told you to give it to the nurse, but you do not know what it says exactly, because you cannot read.
- You are willing to go to the clinic even though it is a three-hour walk because you heard from other mothers in your village that the clinic is giving a special peanut paste food for thin and swollen children. You hope your visit to the clinic will be worth it this time. You have been there before and never had a good experience. You hope that the nurse will make your child well and that you will get some food.
- You should wait for the nurse to ask you questions about your child and her condition. If the nurse does not ask, you can tell him/her a few things and hope this will lead to more questions.

Outpatient Care Nurse:

- You are a nurse, and run the CMAM outpatient care services at your clinic every Thursday.
- A mother presents with a thin baby.
- You ask for the referral slip from the CHW, which shows a red MUAC. The child has already been weighed and is 4.5 kg.
- You take the MUAC again and find it to be 109 mm. Then take a medical history and ask the mother questions about her child's condition.
- Follow the outpatient care treatment card and make sure you conduct a thorough assessment, including a medical examination and RUTF appetite test, so that you can completely fill in the outpatient care treatment card with the necessary information. Fill in the outpatient care treatment card and, if necessary, ask the mother questions to help fill in any gaps.
- Determine what action is needed: admission to outpatient care, referral to inpatient care, or referral to supplementary feeding.
- If you decide to admit the child to outpatient care, make sure to discuss key messages with the mother. Take note of what the mother tells you when you discuss her child's condition; this will help you to know which messages to emphasise.
- If you give RUTF, determine how much is needed according to the child's weight. Fill in the RUTF ration card with all applicable information.
- Tell the mother about the importance to continue breastfeeding, and before every RUTF feeding. Direct her to increase the number of breast feeds when the baby has diarrhoea. Provide guidance on strengthening lactation.

SUGGESTED METHOD: REVIEW OF LEARNING OBJECTIVES AND COMPLETION OF EVALUATION FORM

- Review the learning objectives of the module. In this module we have:

  1. Described outpatient care for the management of SAM without medical complications
  2. Described outpatient care admission criteria
  3. Described the process for admissions and weekly outpatient care follow-on sessions
  4. Explained medical treatment in outpatient care
  5. Explained nutrition rehabilitation in outpatient care
  6. Described the key messages given to mothers/caregivers during outpatient care
  7. Used an action protocol to determine when additional action is needed
  8. Explained discharge criteria and procedures
  9. Described linkages between outpatient care and other services, programmes and initiatives

- Ask for any questions and feedback on the module.

- Distribute **Handout 4.18 Essentials of Outpatient Care for SAM Without Medical Complications** as summary of **Module 4**.
- Let participants know that they will have an opportunity to practice during the outpatient care field visit.
- Ask participants to fill out the module evaluation form.

COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION

OUTPATIENT CARE FIELD PRACTICE

OVERVIEW

A maximum of five participants should be at each outpatient care site on a given day. Coordinate with as many outpatient care sites as necessary to keep the number of participants at five or fewer.

An experienced health care provider, ideally someone affiliated with the outpatient care site, should mentor the participants, first by demonstrating the activities, then by inviting participants to take on more responsibility. Participants must complete all activities under the supervision of an experienced health care provider.

Be certain that participants bring their copies of all handouts dealing with admission and discharge criteria, and action, medical treatment and nutrition rehabilitation protocols (listed below), as well as any other tools trainers deem necessary. The field practice for **Module 2: Defining and Measuring Acute Malnutrition** will be done during this visit, so participants also should bring **Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height.**

Pair participants with someone who speaks the local language.

PREPARATION OF OUTPATIENT CARE FIELD PRACTICE

Refer participants to **Handout 4.19 Outpatient Care Field Practice Checklist** and discuss and review the procedures and steps that participants will undertake at the community-based sites:

- Anthropometry measurements (four children, if possible)
- Admission (four children, if possible)
- Outpatient care follow-on session (four children, if possible)
- Discharge (three children, if possible)
- Accepting referrals from inpatient care
- Talking with staff and mothers/caregivers who come to outpatient care

Participants might need to see as many cases as possible to understand the different scenarios of decision-making during admission, outpatient care follow-on sessions and discharge.

FIELD PRACTICE LEARNING OBJECTIVES	HANDOUTS TO TAKE TO OUTPATIENT CARE FIELD PRACTICE
1. Assess and Admit a Child to Outpatient Care	Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height (from Module 2) Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria Handout 4.3 Outpatient Care: Admission Process Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference) Handout 4.11 Nutrition Rehabilitation and RUTF Handout 4.12 Key Messages for Individual Counselling at Outpatient Care Handout 4.13 Outpatient Care Action Protocol Handout 4.16 Outpatient Care: Discharge Criteria Handout 4.17 Discharge Criteria and Exit Categories for CMAM Handout 4.19 Outpatient Care Field Practice Checklist
2. Assess and Treat a Child During an Outpatient Care Follow-On Session	

FIELD PRACTICE LEARNING OBJECTIVE 1: ASSESS AND ADMIT A CHILD TO OUTPATIENT CARE

HANDS-ON PRACTICE AT SITE: Practice Admission of Children to Outpatient Care (admit four children during hands-on practice)

(Note: this includes children referred from inpatient care)

Anthropometry

- Assess children for bilateral pitting oedema
- Measure MUAC, weight, height
- Classify nutritional status
- Record nutrition indicators on outpatient care treatment cards and RUTF ration cards

New Admissions

- Obtain registration details from mother/caregiver and child's record
- Take medical history

- Conduct physical examination
- Test appetite (wash hands before handling the RUTF)
- Decide: referral to inpatient care if a medical complication exists, admission to outpatient care
- Calculate doses and give routine medicines to child
- Explain medical treatment to mother/caregiver
- Calculate amount of RUTF for child, record it and give ration (based on child's weight and frequency of visit)
- Discuss key messages with mothers/caregivers
- Fill out RUTF ration cards for children in the service
- Ask mother/caregiver to repeat instructions on giving medicine and RUTF
- Link with outreach worker

Accepting Referrals From Inpatient Care

- Review referral slip from inpatient care and record relevant information on outpatient care treatment card (including medicines)
- Review information and medications provided in inpatient care, confirm medicines received to date with mother/caregiver, and adjust outpatient care medicines for admission
- Follow admission protocols (i.e., test appetite, calculate RUTF ration, discuss key messages, fill out RUTF ration card, link with outreach worker)

FIELD PRACTICE LEARNING OBJECTIVE 2: ASSESS AND TREAT A CHILD DURING AN OUTPATIENT CARE FOLLOW-ON SESSION

HANDS-ON PRACTICE AT SITE: Practice Conducting an Outpatient Care Follow-on Session (Conduct visit with four children during hands-on practice)

Anthropometry

- Assess children for bilateral pitting oedema
- Measure MUAC, weight, height
- Classify nutritional status
- Record nutrition indicators on outpatient care treatment cards and RUTF ration cards

Review Progress and Determine Next Steps

- Practice reviewing information on treatment card to date and interpreting progress (Are the children improving? Are they not improving? Why?)
- Use action protocol to assess need for follow-up home visit, referral to inpatient care or discharge, and make any arrangements, if necessary
- Discuss child's progress with mother/caregiver

Discharge

- Complete the outpatient care treatment card upon discharge
- Provide appropriate information to mother/caregiver about child's discharge (e.g., when to come back with the child, danger signs)
- Give discharge ration of RUTF
- Inform mother/caregiver about linking with other services and/or programmes as appropriate (e.g., a supplementary feeding programme [SFP])

FEEDBACK/DISCUSSION: Feedback on Field Practice Sessions

After each field practice, conduct a feedback session in which participants will:

- Provide feedback on strengths observed at each health facility
- Raise issues for clarification by trainers
- Identify key gaps that need more practice or observation time

COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION

MODULE FOUR

Outpatient Care for the Management of SAM Without Medical Complications

LEARNING OBJECTIVES	HANDOUTS AND EXERCISES
1. Describe Outpatient Care for the Management of SAM Without Medical Complications	PowerPoint: Overview of CMAM from Module 1 (optional)
2. Describe Admission Criteria in Outpatient Care	Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria Exercise 4.1 Outpatient Care Admission
3. Describe Process for Admissions and Outpatient Care Follow-On Sessions	Handout 4.3 Outpatient Care: Admission Process Handout 4.4 Outpatient Care Treatment Card Handout 4.5 RUTF Ration Card Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card Exercise 4.2 Outpatient Care Treatment Card and RUTF Ration Card
4. Explain Medical Treatment for the Management of Children With SAM Without Medical Complications in Outpatient Care	Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference)
5. Explain Nutrition Rehabilitation for the Management of SAM Without Medical Complications in Outpatient Care	Handout 4.11 Nutrition Rehabilitation and RUTF
6. Describe the Key Messages for Mothers/Caregivers Used in Outpatient Care	Handout 4.12 Key Messages for Individual Counselling at Outpatient Care

7. Recognising When Further Action is Needed: Referral to Inpatient Care and Follow-Up Home Visits	Handout 4.13 Outpatient Care Action Protocol Handout 4.14 Referral to Inpatient Care or Follow-Up Home Visits Handout 4.15 Referral Slip Exercise 4.3 Identifying Children Who May Need Follow-Up Home Visits or Referral to Inpatient Care
8. Explain Discharge Criteria and Procedures	Handout 4.16 Outpatient Care: Discharge Criteria Handout 4.17 Discharge Criteria and Exit Categories for CMAM Exercise 4.4 Partially Completed Outpatient Care Treatment Cards
9. Describe Linkages Between Outpatient Care and Other Services, Programmes and Initiatives	Handout 1.12 Integrating CMAM into Routine Health Services at the District Level
Wrap-up and Module Evaluation	Handout 4.18 Essentials of Outpatient Care for SAM Without Medical Complications Optional Exercise 4.5 Outpatient Care Admissions Role Play

FIELD PRACTICE LEARNING OBJECTIVES	HANDOUTS TO TAKE TO OUTPATIENT CARE FIELD PRACTICE
1. Assess and Admit a Child to Outpatient Care	Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height (from Module 2) Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria Handout 4.3 Outpatient Care: Admission Process Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference) Handout 4.11 Nutrition Rehabilitation and RUTF Handout 4.12 Key Messages for Individual Counselling at Outpatient Care Handout 4.13 Outpatient Care Action Protocol Handout 4.16 Outpatient Care: Discharge Criteria Handout 4.17 Discharge Criteria and Exit Categories for CMAM Handout 4.19 Outpatient Care Field Practice Checklist
2. Assess and Treat a Child During an Outpatient Care Follow-On Session	

HANDOUT 4.1
ADMISSION CRITERIA AND ENTRY CATEGORIES FOR CMAM

ADMISSION CRITERIA FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	**OUTPATIENT CARE for the Management of SAM without Medical Complications**	**SUPPLEMENTARY FEEDING for the Management of MAM**
ADMISSION CRITERIA FOR CHILDREN 6 - 59 MONTHS*		
Bilateral pitting oedema +++ **OR** Marasmic kwashiorkor: Any grade of bilateral pitting oedema with severe wasting (MUAC < 110 mm or WFH < -3 z-score [WHO] or < 70% of median [NCHS]) **OR** Bilateral pitting oedema + or ++ or MUAC < 110 mm or WFH < -3 z-score (WHO) or < 70% of median (NCHS) **with** any of the following medical complications: ▪ Anorexia, no appetite ▪ Intractable vomiting ▪ Convulsions ▪ Lethargy, not alert ▪ Unconsciousness ▪ Lower respiratory tract infection (LRTI) ▪ High fever ▪ Severe dehydration ▪ Severe anaemia ▪ Hypoglycaemia ▪ Hypothermia **OR** ▪ Referred from outpatient care according to action protocol ▪ Other: e.g., infant ≥ 6 months and < 4 kg	Bilateral pitting oedema + and ++ **OR** MUAC < 110 mm **OR** WFH < -3 z-score (WHO) or < 70% of median (NCHS) **AND** ▪ Appetite ▪ Clinically well ▪ Alert	MUAC ≥ 110 mm and < 125 mm **OR** WFH ≥ -3 z-score and < -2 z-score (WHO) or ≥ 70% and < 80% of median (NCHS) **AND** ▪ Appetite ▪ Clinically well ▪ Alert **ALSO:** Children recovering from SAM, after discharge from outpatient care, regardless of their anthropometry *Note: Children with MAM and medical complications are admitted to supplementary feeding (receive supplementary food ration) but are referred for medical treatment and return when medical complications are resolved.*

*Subject to adaptations according to national guidelines; mid-upper arm circumference (MUAC) cutoffs for severe acute malnutrition (SAM) and mild acute malnutrition (MAM) are being debated.

ADMISSION CRITERIA FOR INFANTS < 6 MONTHS		
Infants < 6 months with bilateral pitting oedema or visible wasting (or e.g., insufficient breastfeeding in vulnerable environment)		
ADMISSION CRITERIA FOR PREGNANT AND LACTATING WOMEN		
		Pregnant women In second and third trimester with MUAC < 210 mm **Lactating Women** MUAC < 210 mm with infants < 6 months

ENTRY CATEGORIES FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	**OUTPATIENT CARE for the Management of SAM without Medical Complications**	**SUPPLEMENTARY FEEDING for the Management of MAM**
ENTRY CATEGORY: NEW ADMISSIONS OF CHILDREN 6-59 MONTHS		
New SAM cases of children 6-59 months meet admission criteria -including **relapse** after cure	New SAM cases of children 6-59 months meet admission criteria -including **relapse** after cure	New MAM cases of children 6-59 months meet admission criteria -including **relapse** after cure and **referral** from outpatient care
ENTRY CATEGORY: OTHER NEW ADMISSIONS		
New SAM cases of infants, children, adolescents or adults (< 6 months or ≥ 5 years) need treatment of SAM in inpatient care	New SAM cases not meeting pre-set admission criteria need treatment of SAM in outpatient care	New MAM cases not meeting pre-set admission criteria need treatment of MAM
ENTRY CATEGORY: OLD CASES: REFERRAL FROM OUTPATIENT CARE AND INPATIENT CARE		
Referral from outpatient care: Child's health condition deteriorated in outpatient care (according to action protocol) and child needs inpatient care **Returned after defaulting** **Moved in** from other outpatient care site	***Referral from inpatient care:*** Child's health condition improved in inpatient care and child continues treatment in outpatient care **OR** **Returned** after defaulting, or **Moved in** from other outpatient care site	***Referral from outpatient care:*** **Returned** after defaulting, or **Moved in** from other supplementary feeding site

Note: MUAC is the preferred indicator for admission to CMAM. MUAC is used for children age 6-59 months. MUAC cutoffs for SAM and MAM are being debated. The cutoff for SAM could increase to 115 mm, however, this had not been put in practice at the time these materials were published. In some countries, the MUAC cutoff for MAM has been set at < 120 mm.

Depending on national guidelines, weight-for-height (WFH) is expressed as standard deviations (SDs) below the median of the World Health Organization (WHO) child growth standards (WFH < - z-score) or as a percentage of the median of the National Centre for Health Statistics (NCHS) child growth references (WFH < % of median).

HANDOUT 4.2
OUTPATIENT CARE: ADMISSION CRITERIA

WHO SHOULD BE ADMITTED TO CMAM OUTPATIENT CARE?

- Children age 6-59 months who have severe acute malnutrition (SAM), an appetite (ability to eat ready-to-use therapeutic food [RUTF], passing the appetite test) and no medical complications
- Children whose mother/caregiver refuses inpatient care despite advice; the child will require follow-up home visits and close monitoring while in outpatient care
- Children who a health care provider has determined should be admitted even though they do not meet admission criteria, such as children over 5 years old with bilateral pitting oedema or who are visibly severely wasted
- Children referred from inpatient care to complete the treatment according to the protocol
- Children who return after defaulting (absent for three consecutive sessions) and who need to continue the treatment

WHO IS NOT ADMITTED TO OUTPATIENT CARE?

- Children with SAM and medical complications, including no appetite, should be referred to inpatient care
- Children under 6 months who have bilateral pitting oedema or visible wasting, and/or whose mother has insufficient breast milk should be referred to inpatient care for SAM with medical complications for specialised treatment of SAM in infants
- Moderately malnourished children should be referred to supplementary feeding or other treatment services for moderate acute malnutrition (MAM), as available
- Children who are sick but do not have SAM should be referred to other appropriate health services
- Children with HIV/AIDS and SAM follow the SAM treatment protocol

Note:

Adults and adolescents: To date, outpatient care programmes have little experience with adults or adolescents. Care and treatment will depend on the context and national guidelines. Currently, best practice is referral to inpatient care and treatment based on World Health Organization (WHO) and national protocols. In several countries (e.g., Malawi, Zambia, Mozambique), severely malnourished HIV-positive adults have been treated as inpatients using F75/F100 and as outpatients using RUTF. Research is ongoing to determine the most effective treatment protocol for HIV-positive adults and adolescents.

Twins: If the first twin meets CMAM admission criteria and the second does not, the second twin is not admitted. However, the second twin receives a weekly RUTF ration because ration sharing must be assumed. An RUTF ration card for the second twin is filled out and stapled to the RUTF ration card of the admitted first twin.

HANDOUT 4.3
OUTPATIENT CARE: ADMISSION PROCESS

A. OVERVIEW OF OUTPATIENT CARE ADMISSION PROCESS

ADMISSION PROCESS FOR CHILD WITH SAM REFERRED TO OR PRESENTED AT THE HEALTH FACILITY WITH OUTPATIENT CARE

(Outpatient Care Follow-On Sessions: Steps 1-15 [except 6] are repeated)

1. Sugar water given

2. Bilateral pitting oedema checked

3. Anthropometry checked:
MUAC measured
Weight measured
Length or height measured; WFH verified*

4. Nutritional status recorded

5. DECISION WHETHER CHILD IS ADMITTED FOR SAM OR REFERRED FOR MAM OR OTHER
(In **outpatient care follow-on sessions**: progress of nutritional status monitored)

6. Registration number provided

7. Medical assessment:
Medical history taken and physical examination conducted, all recorded on outpatient care treatment card

8. Appetite tested

9. DECISION WHETHER CHILD IS ADMITTED TO OUTPATIENT CARE OR REFERRED TO INPATIENT CARE (BASED ON ADMISSION CRITERIA) (In **outpatient care follow-on sessions**: decision whether child continues treatment in outpatient care, is referred to inpatient care or tertiary care [based on outpatient care action protocol], needs a follow-up home visit, or is ready for discharge [based on discharge criteria])

↓

CHILD RECEIVES TREATMENT IN OUTPATIENT CARE

10. Routine medication given upon admission (In **outpatient care follow-on sessions**: medication following treatment protocol given)

11. Weekly supply of RUTF given

12. RUTF ration card filled out and RUTF given

(Soap provided if available)

13. Counselling on how to give RUTF (key messages) and antibiotics given upon admission (In **outpatient care follow-on sessions**: counselling on progress, and health and nutrition education given)

14. Explanation of outpatient care schedule and when to return for outpatient care follow-on sessions, and linkage with outreach worker (e.g., CHW, volunteer) given

15. Links with other services, programmes and initiatives made

↓

CHILD IS REFERRED TO INPATIENT CARE

10. First-dose antibiotic given

11. Referral slip provided

(Arrange transportation where possible)

*Note: In countries where bilateral pitting oedema and mid-upper arm circumference (MUAC) are used for admission, adjust chart and remove length or height measurement and weight-for-height (WFH) information.

B. IMPORTANT CONSIDERATIONS IN THE ADMISSION PROCESS

- Shade should be provided if mothers/caregivers and children have to wait outside. Organise the flow of patients and the waiting area so that mothers/caregivers have somewhere to sit, and health care providers can see patients and take measurements in an orderly manner.
- Children waiting for admission can be given clean, safe water to drink. Where possible, **sugar water** should be given to help prevent hypoglycaemia.
- Children in a severe condition should be triaged and treated first.
- Water should be available for children who eat the ready-to-use therapeutic food (RUTF) during the appetite test and during the waiting period.
- Soap and water should be available for hand-washing.

C. STEPS FOR ADMISSION

- Children are checked for bilateral pitting oedema, their MUAC is taken, they are weighed and their length or height is measured.
- If a child meets the admission criteria for severe acute malnutrition (SAM), the health care provider takes a medical history and conducts a physical examination. The medical history includes information on bilateral pitting oedema, diarrhoea, vomiting, cough, appetite, frequency of stools and urine, bilateral pitting oedema duration, and breastfeeding status. The physical examination includes measurement of respiratory rate, chest retraction and body temperature, and observations of the eyes, ears, lymph nodes, skin, mouth and extremities (see **Handout 4.7 Medical Treatment for Management of SAM in Outpatient Care** for more information).
- All information is recorded on the child's outpatient care treatment card, which is kept on file at the outpatient care site. The health care provider should complete an outpatient care treatment card for all children admitted at the outpatient care site, even those that will be referred to inpatient care. Each child has a unique registration number noted on the outpatient care treatment card.
- The appetite is tested; RUTF is given to the mother/caregiver to give to the child for an observed appetite test. The child's appetite is graded by the health care provider. See **Section D** below for detailed information on the appetite test.
- Based on the appetite test and the medical assessment (i.e. anthropometry, medical history, physical examination), the health care provider determines whether the child should be referred to inpatient care or admitted into outpatient care.
- Routine medication is provided based on the treatment protocol.
- The child will receive a ration of RUTF, and the amount is marked on the outpatient care treatment care and on an RUTF ration card that is given to the mother/caregiver.
- The health care provider counsels the mother/caregiver with key messages on how to feed the child RUTF, how to give the medicines to the child, when to return to outpatient care, and to bring the child to the health facility immediately if his/her condition deteriorates.

Note: Outpatient care includes individual counselling, health and nutrition education, and behaviour change communication (BCC) at each session. It is important that the initial counselling session focus only on the messages above so that the mother/caregiver clearly understands the practices that are essential to the successful treatment of SAM. As the child's condition improves, other messages should be given. These messages will be discussed more fully under **Learning Objective 6**.

- The mother/caretaker receives explanation on the outpatient care schedule and when to return for outpatient care follow-on sessions. S/he is also linked with the responsible outreach worker for his/her community (i.e., name of the community health worker [CHW] or volunteer, how to reach the outreach worker if the introduction was not made during the screening or admission).

- Linkages are made with other services, programs or initiatives as appropriate (e.g., voluntary counselling and testing [VCT], expanded programme of immunisation [EPI], reproductive health clinic, food security initiatives).

D. APPETITE TEST TO DETERMINE WHETHER CHILD SHOULD BE TREATED IN OUTPATIENT CARE WITH RUTF

- Appetite is essential for a child to be admitted to and remain in outpatient care. If a child has no appetite, s/he will not be able to eat RUTF at home and therefore needs referral for specialized care in inpatient care for the management of SAM with medical complications.

- An appetite test is given to children ages 6 months and above to determine whether the child can eat the RUTF. The test shows whether the child has appetite, accepts the RUTF's taste and consistency and can swallow (e.g., child is old enough to swallow solids, child has no lesions that prevent him/her from eating). Anorexia, or absence of appetite, is considered to reflect a severe disturbance of the metabolism.

- Children with SAM who pass the test and have no medical complications are treated in outpatient care. Those who do not pass are referred to inpatient care.

- The appetite test is repeated at every outpatient care follow-on session. For children who are used to the RUTF, there is flexibility on when the repeat test can be done (e.g., with supervision in a group, during the waiting time).

- Children who have other medical complications that require referral to inpatient care do not need to take the appetite test at the outpatient care site.

- The Appetite Test

  1. The child is given a packet or pot of RUTF to eat.
  2. The child should eat *at least one third of a packet or three teaspoons from a pot of RUTF* to pass the test.
  3. The health care provider observes the child eating the RUTF and decides whether the child passes or fails.
  4. If the child passes, s/he can be sent home and continues treatment in outpatient care. If the child fails, referral procedures to inpatient care are started.
  5. The health care provider notes on the outpatient care treatment card whether the child passed or "failed" the appetite test.

Note: Many children will eat the RUTF enthusiastically straight away while others might refuse initially. These children should sit quietly with their mothers/caregivers in a secluded place and be given time to become accustomed to the RUTF.

E. STEPS FOR OUTPATIENT CARE FOLLOW-ON SESSIONS

- Depending on the outpatient care site's schedule and the ability of the mother/caregiver to bring in the child, weekly or bi-weekly outpatient care follow-on sessions are scheduled.

- The mother/caregiver is asked to return for each outpatient care follow-on session, and the importance of compliance with this is explained: returning for outpatient care follow-on sessions is critical for the child's treatment as receiving the needed RUTF is vital for the child's nutrition rehabilitation.

- At each outpatient care follow-on session, the child receives a comprehensive evaluation that includes:

  - anthropometry, medical history, and physical examination
  - an appetite test
  - monitoring the progress of the child's nutritional status
  - decision making for referral to inpatient care or tertiary care depending on the outpatient care action protocol, for a follow-up home visit, or for discharge
  - continuation of drug treatment protocol
  - adequate supply of RUTF
  - individual counselling, and group health and nutrition education.
  - verifying and excluding the presence of medical complications

- The mother/caretaker is linked with services, programs and initiatives as appropriate.

HANDOUT 4.4
OUTPATIENT CARE TREATMENT CARD

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME				Reg. N°	/ /		
AGE (months)		SEX	M F	DATE OF ADMISSION			
ADMINISTRATIVE UNIT				TIME TO TRAVEL TO SITE			
COMMUNITY				FATHER ALIVE			
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE			
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD			
ADMISSION (CIRCLE)	self referral	outreach referral	inpatient care referral	health facility referral	TWIN	yes	no
RE-ADMISSION (relapse)	no yes	ADDITIONAL INFORMATION					

ADMISSION ANTHROPOMETRY

BILATERAL PITTING OEDEMA	+ ++ +++						
MUAC (mm)		WEIGHT (kg)		HEIGHT (cm)		WEIGHT FOR HEIGHT	
ADMISSION CRITERIA	Bilateral pitting oedema	MUAC		Weight for Height		OTHER:	

HISTORY

DIARRHOEA	yes	no		# STOOLS/DAY	1-3	4-5	>5
VOMITING	yes	no		PASSING URINE		yes	no
COUGH	yes	no		IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?			
APPETITE	good	poor	none	BREASTFEEDING		yes	no
ADDITIONAL INFORMATION							

PHYSICAL EXAMINATION

RESPIR. RATE (# min)	<30	30 - 39	40 - 49	50+	CHEST INDRAWING	yes	no
TEMPERATURE °C					CONJUNCTIVA	normal	pale
EYES	normal	sunken	discharge	DEHYDRATION	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 MEDICATION: ADMISSION

ADMISSION: DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
Amoxicillin					
Vitamin A (if not in last 6 months)			Measles immunisation	no yes	date:
Malaria treatment			Fully immunised	no yes	
2nd VISIT:					
Mebendazole					

OTHER MEDICATION

DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

FOLLOW UP: OUTPATIENT CARE

NAME								**REG.N°**									
Week	ADM. (=0)	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)				*		*											
Height (cm)																	
Weight for Height																	
* If below admission weight on week 3 refer for home visit; If no weight gain by week 5 refer to inpatient care																	
HISTORY																	
Diarrhoea (# days)																	
Vomiting (# days)																	
Fever (# days)																	
Cough (# days)																	
PHYSICAL EXAMINATION																	
Temperature (°C)																	
Respiratory rate (# /min)																	
Dehydrated (Y/N)																	
Anaemia / palmar pallor (Y/N)																	
Skin infection (Y/N)																	
APPETITE CHECK / FEEDING																	
RUTF test (Passed/Failed)																	
RUTF (# units given)																	
ACTION / FOLLOW UP																	
ACTION NEEDED (Y/N)																	
Other medication (see front of card)																	
Name of Examiner																	
VISIT OUTCOME																	

OK= Continue A= Absent D= Defaulted for 3 visits R= Referral RR= Refused referral C= Cured NR= Non-recovered
HV= home visit X= Died

ACTION TAKEN DURING FOLLOW-UP (INCLUDE DATE)

Name of outreach worker:

HANDOUT 4.5
RUTF RATION CARD

Front of card:

OUTPATIENT CARE RUTF RATION CARD				**Registration N°**		
Site				**Community**		
Name of Child				**Age**	**Sex**	
Target Weight (kg)				**CRITERIA FOR ADMISSION:**		
Date	**Bilateral pitting oedema**	**MUAC (mm)**	**Height (cm)**	**Weight (kg)**	**WFH**	**RUTF ration**
Notes:						
OUTCOME: Cured Died Defaulted Non-Recovered Referred						

Back of card:

Date	Bilateral pitting oedema	MUAC (mm)	Height (cm)	Weight (cm)	WFH	RUTF ration

Notes / Follow-Up Home Visits (date/signature by outreach worker)

HANDOUT 4.6
USING OUTPATIENT CARE TREATMENT CARD AND RUTF RATION CARD

A. OUTPATIENT CARE TREATMENT CARD

- The outpatient care treatment card is completed for all children admitted to CMAM at the outpatient care site, including those being referred to inpatient care.
- Each child admitted to CMAM is given a unique **registration number**, which is noted on the outpatient care treatment card. The numbering system starts with the first child admitted at that site e.g., 001/OC/XXX (OC for "outpatient care" and XXX as the code for the health facility). This number remains the same even if the child is referred to inpatient care. The number must appear on referral slips. The hospital or agency running inpatient care should use this number on the slip when the child is returned from inpatient care to outpatient care. The same numbering system applies to programmes that manage moderate acute malnutrition (MAM). Note: If a mother/caregiver presents a child directly to inpatient care and the child is admitted, then the inpatient care code is used.
- The **outpatient care treatment card filing system** is a simple data repository system that maintains the most detailed monitoring information of individual treatment. Outpatient care treatment cards are kept in a simple file on site. The file should have dividers with separate sections for defaulters, deaths, recovered (cured children who were discharged) and referrals. This system makes it easy to organise, find the right cards and fill out reports weekly and monthly.
- If a child is referred to inpatient care, the outpatient care treatment card is filed under "referrals to inpatient care" until the child returns to the outpatient care site. Cards in the referral section should be checked weekly, and health care providers should discuss the referral status of the children with the outreach workers (e.g., community health workers [CHWs], volunteers) to be sure that each child returns from inpatient care. If a child dies in inpatient care, the outpatient care treatment card is filed under deaths.
- For health facilities that require registration to meet follow-up and reporting requirements, a simplified registration system using **registration books** can be useful. The health care provider records the child's number, name, place of origin, admission date, nutrition indicators upon admission (i.e. bilateral pitting oedema, mid-upper arm circumference [MUAC], weight, height, weight-for-height [WFH]), date of discharge, and nutrition indicators upon discharge. In stand-alone CMAM services, outpatient care treatment cards can also serve as registration records and no registration book would be required.

B. READY-TO-USE THERAPEUTIC FOOD (RUTF) RATION CARD

- Information provided on RUTF ration cards include:
  - Name of Child
  - Age
  - Sex
  - Community
  - Registration number
  - Health facility with outpatient care site

  - Target weight
  - Criteria for admission
  - Date and nutrition indicators: bilateral pitting oedema assessments, measurements of MUAC, height, weight, WFH
  - Sizes of rations and dates given
  - Notes
  - Follow-up home visits
  - Outcome (e.g., referred, defaulted)

- The mother/caregiver keeps the RUTF ration card until discharge.

- The amount of RUTF given is determined according to the child's weight and visit frequency, and is recorded on the RUTF ration card.

- At the time of discharge, date and discharge criteria are recorded on the RUTF ration card.

Note: Monitoring of individual children is based on the outpatient care treatment cards, which feed information into the monitoring system of the services (see **Module 8: Monitoring and Evaluation of CMAM**). Individual and service data collection must be adapted to the existing monitoring system of individual cases at the health facility and the health management information system (HMIS) at the district level. The existing systems should be reviewed first to determine how to best integrate the CMAM outpatient care treatment cards into an HMIS that is already in place.

HANDOUT 4.7
MEDICAL TREATMENT FOR MANAGEMENT OF SAM IN OUTPATIENT CARE

A. EVALUATION OF THE HEALTH AND NUTRITION STATUS

- **When a child with severe acute malnutrition (SAM) first presents** at the health facility, the health care provider assesses the nutritional status: bilateral pitting oedema is checked and anthropometry is measured.

- The medical assessment includes a medical history and physical examination, and determines whether the child with SAM has any medical complications, including Integrated Management of Childhood Illness (IMCI) danger signs, that might require inpatient care. The medical assessment includes: asking the mother/caregiver about the child's general condition in the past week (e.g., diarrhoea, vomiting, cough, appetite, passing stools and urine, oedema, breast feeding); examining the eyes, ears, lymph nodes, mouth, extremities and skin; checking for bilateral pitting oedema, fever, anaemia and superficial infections; checking respiration rate and chest retraction, alertness and hydration status.

- At **every outpatient care follow-on session**, a health care provider evaluates the child's nutritional status and medical condition. The medical assessment determines the severity of the case and serves as the basis for deciding whether to continue the course of treatment, refer to inpatient care or perform a follow-up home visit to monitor the child's progress.

- A health care provider, educator or trained volunteer counsels mothers/caregivers individually on the child's nutritional and medical status and progress, and provides health and nutrition education, including guidance on optimal infant and young child feeding (IYCF) practices, among other health topics.

B. ROUTINE MEDICAL TREATMENT IN OUTPATIENT CARE

- Routine medicines are given to all children admitted to outpatient care whether or not they show symptoms because ill children with SAM might have suppressed immune systems and not show symptoms until they begin to recover from SAM.

- Treatment is based on World Health Organization (WHO) guidelines for the treatment of SAM and should be adapted to national treatment protocols and based on the national Essential Drugs List (EDL).

- The recommended first-line antibiotic is **amoxicillin**. The child's mother/caregiver gives the <u>first dose</u> of amoxicillin at admission to outpatient care, under the guidance of the health care provider. The health care provider should clearly explain how to continue treatment of antibiotics at home and should ask the mother/caregiver to repeat the instructions to make sure they were understood.

- **Vitamin A** is given in a single dose at admission to children who do not have bilateral pitting oedema and who have not received it in the past month. Children who are admitted with bilateral pitting oedema should receive Vitamin A ONLY upon discharge unless there are signs of Vitamin A deficiency (e.g., night blindness, Bitot's spots, corneal xerosis), if there is currently a measles outbreak or if there is a high prevalence of Vitamin A deficiency in the area.

- **Deworming:** Mebendazole (or albendazole) is provided as a single dose at the second visit. This ensures that the child does not take too many medications on the first day and increases the effectiveness of the medications by reducing the likelihood of vomiting. By the second session, the antibiotics will have taken effect and absorption of the deworming medication will be higher.

- **Iron and folic acid are not given routinely**. Ready-to-use therapeutic food (RUTF) contains iron and folic acid. If anaemia is identified, it should be treated according to IMCI guidelines, and treatment should begin after 14 days in the CMAM service. Cases of severe anaemia should be referred to inpatient care. Malaria testing and treatment should be done before the iron and folic acid treatment is given.

- In areas where malaria is endemic, malaria testing and/or treatment should be given to all children on admission. Rapid malaria tests (e.g., Paracheck) are conducted systematically in malaria-endemic areas to verify the presence of malaria. In the absence of malaria tests, routine antimalaria treatment is given. Note: Artemisinin-based combination therapy (ACT) is provided only to confirmed cases.

- The child's vaccination status is checked upon admission. If the child has not been vaccinated for measles, the vaccination is given to the child on the fourth session. If the child's vaccinations are incomplete, arrangements should be made to complete them, and the vaccination status is recorded on the outpatient care treatment card and the vaccination card.

C. SUPPLEMENTAL MEDICINES

- Supplemental medicines are given based on the clinical diagnosis of individual children upon admission or during the medical assessment. Second-line antibiotics might be required if a child continues to have signs of infection after the first-line routine antibiotic is given. Some children might need additional treatment for conditions such as skin lesions, mouth infection and parasitic infections.

HANDOUT 4.8
ROUTINE MEDICINES FOR SAM IN OUTPATIENT CARE

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

Name of Product	When	Age/Weight	Prescription	Dose
VITAMIN A*	At admission (EXCEPT children with bilateral pitting oedema*)	< 6 months	50,000 IU	Single dose on admission (single dose on discharge for children with bilateral pitting oedema)
		6 months to 12 months	100,000 IU	
		> 12 months	200, 000 IU	
		DO NOT USE WITH BILATERAL PITTING OEDEMA ON ADMISSION*		
AMOXICILLIN	At admission	All beneficiaries	See protocol	3 times a day for 7 days
ANTIMALARIAL (follow national protocol)	At admission in malarial areas	All beneficiaries > 2 months old and > 2 kg	See protocol	Follow national protocol. (when using ACT, treat only confirmed/ positive cases [malaria test])
MEBENDAZOLE**	Second session	< 12 months	DO NOT GIVE	None
		12-23 months	250 mg	Single dose on second session
		≥ 24 months	500 mg	
MEASLES VACCINATION***	On week 4	From 6 months	Standard	Once on week 4

* VITAMIN A: Do not give if the child has already received Vitamin A in the past month. Do not give to children with bilateral pitting oedema until discharge from OUTPATIENT CARE, unless there are signs of Vitamin A deficiency (e.g., night blindness, Bitot's spots, corneal xerosis), if there is currently a measles outbreak or if there is a high prevalence of Vitamin A deficiency in the area.

** MEBENDAZOLE: Give mebendazole or other antihelminth according to national guidelines (e.g., albendazole 12-23 months 200 mg or ≥ 24 months 400 mg [both can be given again after 3 months if signs of reinfection appear]).

*** MEASLES vaccination at 6 months; a second dose should be given around 9 months.

Iron and folic acid should not to be given routinely. Where anaemia is identified according to Integrated Management of Childhood Illness (IMCI) guidelines, treatment should begin ONLY after 14 days in the CMAM service and given according to national and World Health Organization (WHO) guidelines (INACG 1998). For severe anaemia, refer to inpatient care.

Always consult the national treatment protocols and adapt (e.g., IMCI, malaria protocols, other relevant protocols).

AMOXICILLIN DOSAGES

- Systematic treatment for all beneficiaries EXCEPT for children under 2 kg
- Give 3 times a day for 7 days (or 10 days if needed)

SYRUP – 125 mg/5 ml	
Weight of Child (kg)	**Dose**
≤ 9.9	125 mg (5 ml) 3 times per day
10.0 - 30.0	250 mg (10 ml) 3 times per day
> 30.0	Give tablets
SYRUP – 250 mg / 5 ml	
Weight of Child (kg)	**Dose**
≤ 9.9	125 mg (2.5 ml) 3 times per day
10.0 - 30.0	250 mg (5 ml) 3 times per day
> 30.0	Give tablets
TABLETS – 250 mg	
Weight of Child (kg)	**Dose**
≤ 9.9	125 mg (½ tablet) 3 times per day
10.0 - 30.0	250 mg (1 tablet) 3 times per day
> 30.0	500 mg (2 tablets) 3 times per day

NOTE: Always check label on bottles for dosages and dilution of syrups, as different manufacturers might use different levels.

ARTESUNATE AND FANSIDAR DOSAGES (for Artemisinin-Based Combination Therapy [ACT])

- Give Artesunate 3 days + Fansidar single dose on day 1
- Artesunate tablet = 50 mg
- Fansidar tablet = 525 mg

Note: Only for confirmed cases of malaria

DOSE		
Weight of Child (kg)	**Artesunate Days 1-3**	**Fansidar Day 1 Tablets**
< 5	1/4	1/4
5 – 7	1/2	1/2
7.1 – 12	1	1/2
12.1 – 20	2	3/4
20.1 – 30	2	1
30.1 – 40	3	1 1/2
40.1 – 50	4	2
50.1 – 60	4	2 1/2
> 60	5	3

NOTE: Always check label on bottles for dosages and dilution of syrups, as different manufacturers might use different levels.

HANDOUT 4.9
SUPPLEMENTARY MEDICINES FOR SAM IN OUTPATIENT CARE

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

Name of Product	When to Give	Prescription	Special Instructions
CHLORAMPHENICOL	To be given as second-line antibiotic for children not responding to amoxicillin, e.g. with continued fever that is not due to malaria	See separate protocol	Continue for 7 days
TETRACYCLINE EYE OINTMENT	For treatment of eye infection	Apply 3 times a day, morning, afternoon and at night before sleep	Wash hands before and after use; Wash eyes before application; Continue for 2 days after infection is gone
NYSTATIN	For treatment of candida albicans	100,000 units (1 ml) 4 times a day after food (use dropper and show mother/caregiver how to use it)	Continue for 7 days
PARACETAMOL	For children with fever over 39°C	See separate protocol	Single dose only—DO NOT give to take home
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 or other fungal infections of the skin	Apply twice a 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 at next session and continued until condition resolved
QUININE	Second-line antimalarial treatment for children who have not responded to Fansidar	See separate protocol	
FERROUS SULPHATE/ FOLATE	Treatment of anaemia identified according to Integrated Management of Childhood Illness (IMCI) guidelines	According to World Health Organization (WHO) protocols (INACG 1998 and Donnen et al. 1998)	To be given ONLY after 14 days in CMAM service

CHLORAMPHENICOL DOSAGES

- Use for second-line antibiotic treatment for children who have not responded to amoxicillin, e.g., with continued fever that is not due to malaria
- Give 3 times a day for 7 days

Syrup - 125 mg / 5 ml	
Weight of Child (kg)	**Dose**
2.0 - 5.9	62.5 mg (2.5 ml) 3 times per day
6.0 - 9.9	125 mg (5 ml) 3 times per day
10.0 - 30.0	250 mg (10 ml) 3 times per day
Capsules – 250 mg	
Weight of Child (kg)	**Dose**
2.0 - 5.9	Give syrup
6.0 - 9.9	125 mg (1/2 capsule) 3 times per day
10.0 - 30.0	250 mg (1 capsule) 3 times per day

NOTE: Always check label on bottles for dosages and dilution of syrups, as different manufacturers might use different levels.

PARACETAMOL DOSAGES

For severely malnourished children, use for symptomatic treatment of fever but with extreme caution. Give one-time treatment only and start an antibiotic or antimalarial immediately. Monitor the child; if the fever is 39° C or greater, refer him/her to inpatient care where possible. If inpatient care is not available, give a single dose of paracetamol and sponge the child with tepid water until the fever subsides. Have the mother/caregiver return to outpatient care if the high fever continues at home.

SYRUP – 125 MG / 5 ML	
Weight of Child (kg)	**Dose**
< 4.0	25 mg (1 ml) single dose
4.0 - 7.9	60 mg (2.5 ml) single dose
8.0 - 14.9	120 mg (5 ml) single dose
> 15.0	240 mg (10 ml) single dose
TABLETS – 100 MG	
Weight of Child (kg)	**Dose**
< 4.0	25 mg (1/4 tablet) single dose
4.0 - 7.9	50 mg (1/2 tablet) single dose
8.0 - 14.9	100 mg (1 tablet) single dose
> 15.0	200 mg (2 tablets) single dose

NOTE: Always check label on bottles for dosages and dilution of syrups, as different manufacturers might use different levels. Remember to give ONE DOSE only and start antibiotic or antimalarial.

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

HANDOUT 4.10
MEDICINE PROTOCOL RATIONALE FOR OUTPATIENT CARE (REFERENCE)

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

Vitamin A
Vitamin A should be given only if it has not been received in the past 30 days (World Health Organization [WHO] 2000/a). Vitamin A should not be given to children with bilateral pitting oedema related to undernutrition. Research has concluded that children with kwashiorkor who receive high-dose Vitamin A therapy suffer five times greater mortality than the control group (Donnen et al. 1998; Donnen et al. 2003). Ready-to-use therapeutic food (RUTF) has enough Vitamin A (0.91 mg/100 g) to satisfy a daily low-dose requirement. Therefore, children with bilateral pitting oedema should be given Vitamin A ONLY if they show any signs of Vitamin A deficiency (e.g., night blindness, Bitot's spots, corneal xerosis), if there is currently a measles outbreak or if there is a high prevalence of Vitamin A deficiency in the area.

Dosages should follow WHO or national guidelines (WHO 1999/b).

Amoxicillin
Amoxicillin is given routinely on admission to treat underlying infections that might be masked due to immunosuppression, which limits response such as fever. Amoxicillin is also effective in reducing the overgrowth of bacteria in the gastrointestinal (GI) tract (Meyers et al. 2001), which is commonly associated with severe acute malnutrition (SAM). Amoxicillin can cross the wall of the GI tract into the bloodstream passively and does not rely on active transport mechanisms that might be inefficient in severely malnourished individuals. If signs and symptoms of infection continue beyond the initial treatment, a second-line antibiotic should be started.

Chloramphenicol
While the simultaneous use of several antibiotics might be justified in an inpatient setting, a simpler regime is required in an outpatient setting. Chloramphenicol is an antibiotic with a sufficiently broad spectrum to fulfil this need. It is given as a second-line treatment if amoxicillin fails to cure the infection. Dosage and timing are dependent on the specifically identified infection (WHO 1999/a and WHO 1999/b). The use of chloramphenicol is associated with a very small risk of aplastic anaemia, leading to lethal bone marrow failure. Because the medicine is used in the United Kingdom and is believed to be a valuable treatment for dangerous conditions, its use is appropriate for treating potentially life-threatening infections in malnourished children.

Additional Antibiotics
Antibiotics other than those mentioned above should be given only when specifically indicated by the presence of an infection and should be given according to the drug protocol and in consideration of national drug protocols. In cases where severe infections require referral to an inpatient unit, second-line antibiotics may be added to amoxicillin according to standard WHO inpatient protocols (WHO 1999/a). National protocols or local antibiotic resistance information will indicate which additional antibiotics to use.

Measles Vaccination
Evidence shows that an early two-dose strategy from the age of 6 months is very effective. All children entering inpatient care (except those in shock or those with evidence of previous vaccination) should be given the vaccination immediately and again on discharge from **outpatient care**. This should be coordinated with the expanded programme of immunisation (EPI) where applicable. The first vaccination

in the inpatient setting is to ameliorate the severity of both incubating measles and the episode if the child is exposed to measles in inpatient care. However, the first vaccination does not provide adequate immunity in many children requiring inpatient care due to insufficient antibody response, so the second injection is needed for future protection.

In outpatient care, children are at less risk of exposure to active measles cases and are less severely affected by undernutrition. It is recommended that they receive one measles vaccination only after they have sufficiently recovered from their undernutrition to ensure a sufficient antibody response to produce immunity (i.e., on week four).

Outpatient care also can provide an opportunity for referring the children's siblings for measles vaccination, which can reduce the mortality of household members who are unvaccinated.

Antimalarial Therapy
National protocols should guide the antimalarial therapy used. It is recommended that a Paracheck (rapid malarial test) is done on all children in a malaria-endemic area. Artemisinin-based combination therapy (ACT) (e.g., Fansidar in combination with artesunate) usually is given for positive cases only. However, ACT can be given without Paracheck if there is a strong indication of malaria and the signs and symptoms cannot be attributed to any other cause. In other areas, testing should be done only on those with a strong indication of malaria. This protocol is designed to prevent overuse of the antimalarial therapy, which could cause the malarial parasite to become resistant to the drug regimen. Note: Do not give Fansidar with folic acid (see below).

Folic Acid
The folic acid in RUTF and F75 is sufficient for a malnourished child. Folic acid should be given only to children showing signs of anaemia. However, if these children receive Fansidar as part of the malaria therapy on admission, they should not be given folic acid until the second session at outpatient care. Giving folic acid within seven days of Fansidar can make the antimalarial ineffective as the malarial parasite can use folic acid to overcome the effect of Fansidar (Wang et al. 1999). Because folic acid is present in RUTF, priority is given to treating life-threatening malaria.

Iron
High-dose iron tablets should not be given to the severely malnourished because it can increase the risk of severe infections. The presence of free iron in the blood is often a limiting substrate to infective organisms. In a normal functioning liver, the enzyme transferrin can "mop up" this free iron. In the severely malnourished, poor liver function and the reduced levels of transferrin allow iron to remain free for use by the infective organisms. Although there is some iron content in RUTF, the levels are lower than in high-dose tablets and insufficient to allow the formation of free iron in the same way.

There is currently no research to document the bioavailability of iron in RUTF. RUTF is given only to those with an appetite. However, good appetite correlates with good liver function and consequently with transferrin activity.

Where moderate anaemia is identified according to Integrated Management of Childhood Illness (IMCI) guidelines, treatment should be provided according to WHO guidelines (INACG 1998) after day 14 in the CMAM service. Where anaemia is severe, the child should be referred to inpatient care according to the action protocol.

Mebendazole/Albendazole
Mebendazole/albendazole is actively absorbed from the intestine and, because it is more effective when the GI tract is free of other infections, is given on the second session. Indications are that mebendazole/albendazole is metabolised efficiently by children over 12 months (Montresor et al. 2003), so routine

treatment should be given only to those children. Worm infection is less common in infants due to reduced exposure to potential contaminants (e.g., soil).

Paracetamol
Paracetamol should be used with caution in severely malnourished children because it is metabolised by the liver and there is a high possibility of reduced liver function with SAM. Irreversible liver damage and death can occur even with relatively small overdoses in susceptible people, so paracetamol should not be given unless there is a documented fever of 39° C or higher. A low-grade fever of less than 39° C is a normal immune response that usually helps the body fight infection; paracetamol should not be given in these cases. Paracetamol also should never be dispensed to take home.

IMPORTANT NOTE ON ORAL REHYDRATION SALTS
Oral rehydration salts are not part of the CTC protocols. The pathophysiology of SAM causes an inability to regulate and excrete sodium normally that can lead to bilateral pitting oedema, fluid retention and heart failure. This deterioration can happen very quickly. Oral rehydration salts are therefore contraindicated for all children with SAM.

Children with SAM and dehydration are treated in inpatient care with an oral rehydration solution of electrolytes and minerals called **ReSoMal** (Rehydration Solution for Malnutrition). Children with SAM are deficient in potassium and need a solution that contains less sodium and more potassium. These children are usually also deficient in other minerals like magnesium, copper and zinc. ReSoMal, which should be taken orally, is composed of:

- Glucose 125 mmol/l
- Sodium 45 mmol/l
- Potassium 40 mmol/l
- Chloride 70 mmol/l
- Magnesium 3 mmol/l
- Zinc 0.3 mmol/l
- Copper 0.045 mmol/l
- Citrate 7 mmol/l

HANDOUT 4.11
NUTRITION REHABILITATION AND RUTF

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

READY-TO-USE THERAPEUTIC FOOD (RUTF)

- RUTF is high-energy, nutrient-dense food used for nutrition rehabilitation in outpatient care in combination with systematic medical treatment. It should not be used alone to treat severe acute malnutrition (SAM).

- Some characteristics of RUTF:
  - Similar in composition to F100 (except RUTF contains iron and is about five times more energy-nutrient dense)
  - Soft lipid-based paste (e.g., Plumpy'nut®) or crushable nutrient bar (e.g., BP100)
  - Ideal for outpatient care because it does not need to be cooked or mixed with water, which prevents growth of bacteria
  - Easy to distribute and carry
  - Easy to store (in a clean dry place) and can be kept for some time even when opened
  - Available locally through either imports or local production

- Lipid-based RUTF[2] is most commonly used in outpatient care. It has a caloric value of 545 kilocalories (kcal) per 100 g of product. The ration given is 200 kcal per kg per day on average.
  - 1 packet of Plumpy'nut® = 92 g = 500 kcal
  - 1 packet of locally produced RUTF = 100 g = 545 kcal
  - 1 locally produced pot = 250 g= 1,362 kcal

- Lipid-based RUTF is composed of:
  25% peanut butter
  26% milk powder
  27% sugar
  20% oil
  2% combined mineral and vitamin mix (CMV)

- Non-lipid-based RUTF,[3] such as BP100, might be available, especially in emergencies. BP100 is a solid but crushable biscuit-like food based on F100. It is very dry, and children age 2 years or older should take it with plenty of clean water. For children under 2, it is recommended that BP100 be crushed and mixed with clean water and eaten as porridge. However, this raises serious problems with contamination as the mix contains water and mothers/caregivers tend to want to keep the unfinished portion. To avoid these problems, younger children ideally should not be given RUTF that is not lipid-based.

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[1] Lipid-based RUTF: e.g., Plumpy'nut® is produced by Nutriset, France; similar RUTF products are produced by other companies in several countries, e.g., Ethiopia, Niger, Malawi, DRC.
[2] Non-lipid-based RUTF: e.g., BP100, is produced by Compact, Sweden.

- RUTF's low water content means that children should be offered clean water when eating it.
- In the first weeks of nutrition rehabilitation, the child should not be offered any food other than breastfeeding and RUTF.
- RUTF should be eaten after breastfeeding and before any other food.
- Allergic reactions to RUTF in children with SAM who are immunosuppressed have not been recorded.

PROCEDURES FOR NUTRITION REHABILITATION

- The health care provider asks the mother/caregiver of a child returning for the outpatient care follow-on session how many packets the child has eaten in the past week and how many are untouched at home. The health care provider then subtracts the number of untouched packets from this week's ration. This is to make sure the child is eating well at home. If the child is not eating well, the health care provider discusses this with the mother/caregiver and reinforces the importance of RUTF. If needed, the health care provider performs a follow-up home visit to investigate the reduced RUTF intake.
- Note: If the child has not gained weight in the past week (approximately 5g/kg/day can be expected), it is very likely that the child did not consume the required amount of RUTF.
- Key messages should be given to the mother/caregiver on how to use the RUTF, including the importance of regular feeding in small amounts. These messages are important. The mother/caregiver should repeat the key messages so the health care provider can be sure they are understood.
- The health care provider fills out an RUTF ration card and gives it to the mother/caregiver.
- Mothers/caregivers are asked to return empty packets of RUTF. This is to avoid littering and help discourage the sale of the RUTF. This measure is not intended to be a means to control how much is eaten.

CONSIDERATIONS IN PROVIDING RUTF AND OTHER RATIONS IN OUTPATIENT CARE

- If a twin is admitted to outpatient care and the other is not, sharing is assumed. The twin without SAM should be given an equal amount of RUTF ration.
- To prevent sharing of the RUTF, a family ration of fortified blended food (FBF) can be provided to the mother/caregiver of a child admitted to outpatient care. This might be possible during periods of high food insecurity when supplementary feeding is available.
- The mother should be encouraged to continue breastfeeding especially if the child is 2 years old or younger.
- The child should complete the daily ration of RUTF before being given any other foods (except for breast milk).
- On discharge from outpatient care, each child receives seven packets of RUTF to help transition the child to family food. Children are referred to supplementary feeding for continuing nutrition rehabilitation. If no supplementary feeding services or programmes are available, a ration of FBF can be provided to the mother/caregiver upon discharge.

RUTF RATION

- The number of packets of RUTF the child eats in a day is determined by the child's weight.
- The number of packets of RUTF provided is determined by the child's weight and the frequency of the child's session to the health facility.

RUTF Rations* in Outpatient Care: Plumpy'Nut® (92 g packets containing 500 kcal)

Weight of Child (kg)	Packets per Day	Packets per Week
3.5 - 3.9	1.5	11
4.0 – 5.4	2	14
5.5 – 6.9	2.5	18
7.0 – 8.4	3	21
8.5 – 9.4	3.5	25
9.5 – 10.4	4	28
10.5 – 11.9	4.5	32
≥ 12	5	35

*Based on average nutrition rehabilitation ration of 200 kcals/kg/day

RUTF Rations* in Outpatient Care: Locally Produced RUTF (100g packets containing 545 kcal)

Weight of Child (kg)	Packets per Day	Packets per Week
3.5 - 3.9	1.3	9
4.0 – 5.4	1.5	11
5.5 – 6.9	2	15
7.0 – 8.4	2.5	18
8.5 – 9.4	3	22
9.5 – 10.4	3.5	25
10.5 – 11.9	4	28
≥ 12	4.5	32

*Based on average nutrition rehabilitation ration of 200 kcals/kg/day

RUTF Rations* in Outpatient Care: Locally Produced RUTF (250g pots containing 545 kcal/100g)

Weight of Child (kg)	Pots per Day	Pots per Week
3.5 - 3.9	0.5	4
4.0 – 4.9	0.66	5
5.0 – 5.9	0.75	5
6.0 – 7.9	1	7
8.0 – 9.4	1.25	9
9.5 – 10.9	1.5	11
11.0 – 11.9	1.75	12
≥ 12	2	14

*Based on average nutrition rehabilitation ration of 200 kcals/kg/day

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

HANDOUT 4.12
KEY MESSAGES FOR INDIVIDUAL COUNSELLING

Key messages should explain to mothers/caregivers:

- How to feed ready-to-use therapeutic food (RUTF) to the child
- When and how to give the medicines to the child
- When to return to outpatient care
- That the child should be brought to the health facility immediately if his/her condition deteriorates

The health care provider should ask the mother/caregiver to repeat the messages to be sure they were understood. Key messages include:

- RUTF is a food and medicine for very thin children only. It should not be shared.
- 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 a day). Your child should have ___ packets a day.
- RUTF is the only food sick and/or thin children need to recover during their time in outpatient care. However, breastfeeding should continue, when applicable.
- For young children, continue to breastfeed regularly.
- Always offer the child plenty of clean water to drink or breast milk while he or she is eating RUTF.
- Wash children's hands and face with soap before feeding if possible.
- Keep food clean and covered.
- Sick children get cold quickly. Always keep the child covered and warm.
- When a child has diarrhoea, never stop feeding. Continue to feed RUTF and (if applicable) breast milk.

These key messages can be supplemented with more detail and more messages if time allows.

NOTE: In some circumstances, mothers/caregivers are given a ration of supplementary food for the other children in the family to prevent sharing of the RUTF. The health care provider should make it clear that the supplementary food is for the other children in the family and that the severely malnourished child should only eat RUTF (preceded by breast milk, when applicable).

As soon as the child is improving and has increased appetite, mothers/caregivers can start giving the child other foods (e.g., supplementary food, local food) in addition to — but after — breast milk and the RUTF.

Health and Nutrition Education

Individual counselling and group sessions on health and nutrition education are essential. In some contexts, existing messages can be adapted (e.g., Essential Nutrition Actions [ENA][1]). Every attempt should be made to use the same or similar messages disseminated in other programmes.

Messages must be reinforced by *practice*. They should focus on:

- Basic hygiene
- Continuation of optimal breastfeeding behaviours, especially with infants and young children age 6-23 months
- The importance of frequent and active feeding
- What local foods to give young children, while reinforcing that the child in outpatient care MUST finish eating all the RUTF BEFORE other foods (except breast milk) are given
- Identifying undernutrition (recognising when to bring children to outpatient care)
- Managing diarrhoea and fever
- Recognising danger signs

The outreach workers (e.g., community health workers [CHWs], volunteers) should be encouraged to give the same health and nutrition education messages to the communities.

[1] The ENA approach, which has been adopted in several African countries, identifies the key nutrition actions that can be promoted at key contact points in the life cycle through research-based messages that are contextually appropriate. The seven key action areas are: 1) promotion of optimal breastfeeding practices during the first six months; 2) promotion of optimal complementary feeding beginning at six months with continued breastfeeding to 2 years and beyond; 3) promotion of feeding of the child during and after illness; 4) prevention of Vitamin A deficiency (e.g., breastfeeding, consumption of fortified and Vitamin A-rich foods, maternal and child Vitamin A supplementation); 5) prevention of anaemia (e.g., maternal and child iron supplementation, deworming, malaria control, consumption of fortified and iron-rich foods); 6) promotion of iodized salt consumption by all families; and 7) promotion of improved women's nutrition (e.g., increase food intake during pregnancy and lactation, iron and/or folic acid supplementation, treatment and prevention of malaria, deworming during pregnancy, postpartum Vitamin A supplementation). Visit http://www.linkagesproject.org for more information.

HANDOUT 4.13
OUTPATIENT CARE ACTION PROTOCOL

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

Sign	Referral to Inpatient Care	Follow-Up Home Visit
BILATERAL PITTING OEDEMA	Grade +++	Bilateral pitting oedema not reducing by week 3
	Marasmic kwashiorkor	
	Increase in, or development of, bilateral pitting oedema	
APPETITE / ANOREXIA	No appetite or unable to eat	Eats < 75% of the RUTF a week by third session
VOMITING	Intractable	General medical deterioration
TEMPERATURE	Fever: > 39C	
	Hypothermia: < 35 C	
RESPIRATION RATE (rr)	≥ 60 respirations/minute for under 2 months ≥ 50 respirations/minute from 2 to 12 months ≥ 40 respirations/minute from 1 year to 5 years ≥ 30 respirations/minute for over 5 years Any chest in-drawing	
ANAEMIA	Very pale (severe palmer pallor), difficulty breathing	
SUPERFICIAL INFECTION	Extensive infection requiring intermuscular treatment	
ALERTNESS	Very weak, apathetic, unconscious	
	Fitting/convulsions	
HYDRATION STATUS	Severe dehydration based primarily on recent history of diarrhoea, vomiting, fever or sweating and on recent appearance of clinical signs of dehydration as reported by the mother/caregiver	
WEIGHT CHANGES		Below admission weight on week 3
	Weight loss for 3 consecutive weighings	Weight loss for 2 consecutive weeks
	Static weight for 5 consecutive weighings	Static weight for 3 consecutive weeks
GENERAL	Mother/caregiver requests inpatient care	Returned from inpatient care (first 2 weeks)
		Refused referral to inpatient care
NOT RECOVERING	Child that is not recovering is referred to hospital for investigation.	

HANDOUT 4.14
REFERRAL TO INPATIENT CARE OR FOLLOW-UP HOME VISITS

A. REFERRAL TO INPATIENT CARE

Referral system

- Close collaboration between inpatient and outpatient care is essential. Health care providers in inpatient facilities should receive an orientation on outpatient care treatment and visit the site and vice versa.
- Children with severe acute malnutrition (SAM) who are referred to inpatient care are sent to the nearest inpatient care site linked to the referring outpatient care site.
- The mother/caregiver receives appropriate explanations and instructions on what to expect and what to do. If possible, arrangements should be made or facilitated for the mother/caregiver and beneficiary to travel to the health facility and stay for a certain time.
- Mothers/caregivers might refuse to go to inpatient care for a number of reasons: fear that they will have to pay at the hospital, lack of transport, unwillingness to be separated from the family and other children, or a belief that the child might die on the way to or in the hospital. Instead, they choose to stay home. Where possible, these issues should be considered and a careful explanation given to the mother/caregiver. The mothers/caregivers will often need some time to tell the family that they must go to the hospital and to collect things they need. If after careful explanation the mother/caregiver still refuses to go to inpatient care, the child can stay in outpatient care and should receive follow-up home visits according to the outpatient care action protocol (refused referral to inpatient care).

Referral slip

- If children are being referred to inpatient care from outpatient care, the mother/caregiver is given a referral slip with the child's unique registration number, medical history and information on treatment the child has received. The purpose of the referral slip is to keep track of children between outpatient care and inpatient care. The referral slip should also include information on what medications were given and why to avoid giving children medicine that they have already been given.
- Using the child's unique registration number on referral slips helps ensure smooth referrals among services. When inpatient care sites use an already existing system for registration numbers, efforts should be made to use the child's unique CMAM registration number in addition.
- It is important to have effective tracking and reporting systems so that children do not get lost and defaulters and deaths do not go unreported.

Referral to tertiary care

- A child might need to be sent from outpatient care to a higher-level referral centre for underlying medical complications. If the child has appetite, the child might be sent to the hospital with a supply of ready-to-use therapeutic food (RUTF) or an arrangement might be made to make sure the hospital has RUTF for children who are referred. Otherwise, F75 and instructions should be made available for inpatient care (in case the hospital does not have specific inpatient care for SAM).

B. FOLLOW-UP HOME VISITS

- The health care provider in collaboration with the outreach worker (e.g., community health worker [CHW], volunteer) should arrange for children who are at-risk based on the outpatient care action protocol to be followed up at home through an outreach visit.

- The follow-up home visit is used to assess what might be hindering the child's recovery and to support the family to help the child recover through counselling, education and close monitoring of the child's progress.

- Follow-up home visits can be made by a health care provider or outreach worker.

- There must be communication channels in place between the health care provider and the outreach worker to ensure that children receive necessary follow-up. Ideally, outreach workers will be present on an outpatient care day so they will know which children need follow-up. But having a communication system can help ensure that those who could not attend the outpatient care day are told which children need follow-up and who is responsible for making the follow-up home visit.

HANDOUT 4.15
REFERRAL SLIP

Name of child:

Community:

Age:

Sex:

Date of Admission:

Site:

ADMISSION DATA

Weight: **MUAC:**

Height: **WFH:**

Referral to:

Bilateral pitting oedema (circle) **None** **+** **++** **+++**

Registration No:

Date of Referral:

Criteria for Referral:

Treatment given:

Comments:

Adapted from *Community-based Therapeutic Care (CTC): A Field Manual*

HANDOUT 4.16
OUTPATIENT CARE: DISCHARGE CRITERIA

WHEN ARE CHILDREN DISCHARGED FROM OUTPATIENT CARE?

- A child is discharged from outpatient care when s/he has recovered from bilateral pitting oedema or a low weight, and thus no longer has severe acute malnutrition (SAM).
- The decision to discharge the child is based on the child recovering from the initial SAM condition, consistently gaining weight, and being clinically well and alert.

The decision rules for discharge differ based on the criteria used to admit the child:

- **Children who were admitted for bilateral pitting oedema** must have no bilateral pitting oedema for more than two consecutive outpatient care follow-on sessions before being discharged. If this condition is met, and the child is clinically well and alert, the child may be discharged from CMAM services after being checked to ensure that his/her mid-upper arm circumference (MUAC) ≥ 110 mm or weight-for-height (WFH) ≥ -2 z-score (World Health Organization [WHO]) or ≥ 80% of the median (National Centre for Health Statistics [NCHS]).
- **Children who were admitted based on a low MUAC** must spend a minimum of two months (or eight weeks) in treatment before being discharged. After two months, if their MUAC ≥ 110 mm, they have consistently gained weight, and they are clinically well and alert, the children may be discharged after being checked to ensure that they have no bilateral pitting oedema.

  Another option to discharge a child admitted based on a low MUAC, is to discharge the child based on the percentage increase in weight gain. The percentage increase in weight gain is measured from the lowest weight while in treatment (or at the point where the child is without bilateral pitting oedema). The child is discharged if s/he has a 20% increase of initial or lowest weight and is clinically well and alert. However, this discharge criterion was not based on evidence at the time this document was published.
- **Children who were admitted based on a low WFH** must achieve WFH ≥ -2 z-score (WHO) or ≥ 80% of the median (NCHS) for more than two consecutive outpatient care follow-on sessions. Once this condition is met, the child may be discharged if he or she has consistently gained weight, is clinically well and alert and has been checked to ensure that s/he does not have bilateral pitting oedema. In situations where there is no programme to manage moderate acute malnutrition [MAM], the discharge criterion based on percentage of the median may be changed to WFH ≥ 85% of the median.
- **Children who were admitted with marasmic kwashiorkor** (bilateral pitting oedema and severe wasting) must have no bilateral pitting oedema and no severe wasting for more than two consecutive outpatient care follow-on sessions, must have consistently gained weight and must be clinically well and alert before being discharged. If they were admitted using MUAC, they must stay in treatment for at least two months and have a MUAC ≥ 110 mm upon discharge. If they were admitted using WFH, they must achieve WFH ≥ -2 z-score (WHO) or ≥ 80% of the median (NCHS) for more than two consecutive outpatient care follow-on sessions.

HANDOUT 4.17
DISCHARGE CRITERIA AND EXIT CATEGORIES FOR CMAM

DISCHARGE CRITERIA FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	OUTPATIENT CARE for the Management of SAM without Medical Complications	SUPPLEMENTARY FEEDING for the Management of MAM
DISCHARGE CRITERIA* FOR CHILDREN 6 - 59 MONTHS		
DISCHARGED TO OUTPATIENT CARE: Appetite returned (passed appetite test) **AND** medical complication resolving **AND** bilateral pitting oedema decreasing **AND** clinically well and alert (If marasmic kwashiorkor admission: bilateral pitting oedema resolved)	**DISCHARGED CURED:** **If bilateral pitting oedema admission:** ▪ No bilateral pitting oedema for 2 consecutive sessions ▪ MUAC ≥ 110 mm ▪ WFH ≥ -2 z-score (WHO) or ≥ 80 % of the median (NCHS) ▪ Child clinically well and alert **If MUAC admission:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 110 mm ▪ No bilateral pitting oedema ▪ Child clinically well and alert **If WFH admission:** ▪ Minimum 2 months in treatment and WFH ≥ -2 z-score (WHO) or WFH ≥ 80 % of the median (NCHS) for 2 consecutive sessions** ▪ No bilateral pitting oedema ▪ Child clinically well and alert **If marasmic kwashiorkor admission:** ▪ No bilateral pitting oedema for 2 consecutive sessions ▪ If MUAC admission: minimum 2 months in treatment and MUAC ≥ 110 mm ▪ If WFH admission: WFH ≥ -2 z-score (WHO) or ≥ 80% of the median (NCHS) for 2 consecutive sessions ▪ Child clinically well and alert ***Children are discharged to supplementary feeding if available***	**DISCHARGED CURED:** **If MUAC admission:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 125 mm **If WFH admission:** ▪ Minimum 2 months in treatment ▪ WFH ≥ -2 z-score (WHO) or ≥ 85% of median (NCHS) for 2 consecutive sessions **DISCHARGED AFTER RECOVERING FROM SAM:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 125 mm

*Subject to adaptations according to national guidelines; mid-upper arm circumference (MUAC) cutoffs for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) are being debated.
** If there is no supplementary feeding, discharge criteria may be adjusted to weight-for-height (WFH) ≥ 85% of median (National Centre for Health Statistics [NCHS]).

DISCHARGE CRITERIA FOR INFANTS < 6 MONTHS		
Discharged cured if successful re-lactation and appropriate weight gain (minimum 20 grams weight gain per day on breastfeeding alone for 5 days) and clinically well and alert (if no access to breastfeeding,alternative method of replacement feeding based on national guidelines is required).		
DISCHARGE CRITERIA FOR PREGNANT AND LACTATING WOMEN		
		Pregnant and lactating women MUAC ≥ 210 mm or infant ≥ 6 months of age

EXIT CATEGORIES FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	**OUTPATIENT CARE for the Management of SAM without Medical Complications**	**SUPPLEMENTARY FEEDING for the Management of MAM**
EXIT CATEGORY: CURED		
Child 6-59 months meets outpatient care discharge criteria Infant < 6 months meets inpatient care discharge criteria	Child 6-59 months meets discharge criteria	Child 6-59 months meets discharge criteria
EXIT CATEGORY: DIED		
Child dies while in inpatient care	Child dies while in outpatient care	Child dies while in supplementary feeding
EXIT CATEGORY: DEFAULTED		
Child is absent for 2 days	Child is absent for 3 consecutive sessions (e.g., 3 weeks)	Child is absent for 3 consecutive sessions (e.g., 6 weeks)
EXIT CATEGORY: NON-RECOVERED		
Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)	Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)	Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)
EXIT CATEGORY: REFERRED TO OUTPATIENT OR INPATIENT CARE		
Referred to Outpatient Care: Child's health condition is improving and child is referred to outpatient care to continue treatment	***Referred to Inpatient Care:*** Child's health condition is deteriorating (action protocol)	***Referred to Outpatient or Inpatient Care:*** Child's health condition is deteriorated and child meets outpatient or inpatient care admission criteria (action protocol)

HANDOUT 4.18
ESSENTIALS OF OUTPATIENT CARE FOR SAM WITHOUT MEDICAL COMPLICATIONS

ESSENTIALS

- Children with severe acute malnutrition (SAM) who have an appetite and no medical complications are treated on an outpatient basis at a health facility that offers outpatient care for SAM without medical complications. These children do not have to be admitted to inpatient care at a hospital or health facility with beds. The majority of children with SAM (> 80%) can be treated on an outpatient basis.

- After the child is admitted to outpatient care, the mother/caregiver brings him/her to the health facility or outpatient care site every week or two weeks. At each of these outpatient care follow-on sessions, the health care provider assesses the child's medical condition and nutritional status, provides additional medical treatment if necessary and gives the mother/caregiver the quantity of ready-to-use therapeutic food (RUTF) needed until the child's next outpatient care follow-on session. The amount of RUTF given is determined by the child's weight and frequency of sessions.

- Outpatient care is offered in as many health facilities or treatment points as possible in a given area or district. This ensures that as many malnourished children as possible can access treatment.

- Outpatient care sites are run by health care providers such as a doctor or nurse (depending on the Ministry of Health's [MOH's] policy).

- Outpatient care should be incorporated into the routine health service for children under 5 years old. Depending on the size of the caseload, outpatient care might be offered once a week on a designated day or every day as part of the routine health service (ideally), with patients returning weekly or biweekly.

- Children can be referred to CMAM services by outreach workers (e.g., community health workers [CHWs], community volunteers. They can also be self-referrals, meaning they are brought to the health facility or outpatient care without community referral. Other outpatient care admissions will include children discharged from inpatient care and those who have deteriorated in programmes to treat moderate acute malnutrition (MAM).

- Most of the children will first access CMAM services at the outpatient care site and will be examined and referred to inpatient care or MAM programmes as needed. Thus, the outpatient care sites are an access point for the majority of SAM cases.

- Children are admitted to CMAM at any time if they present at the health facility. They should be treated when they present and asked to return on the designated outpatient care day, if applicable.

- Community outreach is an essential part of a community-based programme. This ensures that the community understands the services. Outreach workers (e.g., CHWs, volunteers) are used to find and refer children to CMAM services, which increases understanding and coverage.

HANDOUT 4.19
OUTPATIENT CARE FIELD PRACTICE CHECKLIST

ANTHROPOMETRY	
	Assess for bilateral pitting oedema
	Measure mid-upper arm circumference (MUAC), weight, height
	Classify nutritional status
	Record Nutrition indicators on outpatient care treatment cards and on ready-to-use therapeutic food (RUTF) ration card
NEW ADMISSIONS	
	Obtain registration details from mother/caregiver and record anthropometric measurement
	Take medical history
	Conduct physical examination
	Test appetite
	Decide if eligible for outpatient care or needs referral to inpatient care
	Calculate doses and give routine medicines to child
	Explain medical treatment to mother/caregiver
	Calculate amount of RUTF for child and record and give the ration
	Fill out RUTF ration card
	Discuss key messages with mothers/caregivers
	Ask mother/caregiver to repeat instructions on how to give medicine and RUTF
	Link with outreach worker
OUTPATIENT CARE FOLLOW-ON SESSIONS	
	Take medical history
	Conduct physical examination
	Test appetite
	Review information on outpatient care treatement card to date and interpret progress (Are they improving? Are they not improving? Why?)
	Continue medical treatment as appropriate
	Use action protocol to assess need for follow-up home visit and arrange if necessary
	Use action protocol to assess need for referral and arrange if necessary
	Discuss child's progress with mother/caregiver
	Calculate amount of RUTF for child and record and give the ration
	Fill out RUTF ration card

	Provide health and nutrition counselling
	Inform mother/caregiver about linking with other services, programmes and initiatives (e.g., expanded programme of immunisation [EPI], voluntary counselling and testing [VCT], reproductive health)
DISCHARGES	
	Identify children ready for discharge
	Fill in the outpatient care treatment card upon discharge
	Provide appropriate information to mother/caregiver about child's discharge (e.g., when to bring the child back, danger signs)
	Give discharge ration of RUTF
	Inform mother/caregiver about linking with other services, programmes and initiatives, iF appropriate (e.g., supplementary feeding programme [SFP])
ACCEPTING REFERRALS FROM INPATIENT CARE	
	Review referral slip from inpatient care and record relevant information on outpatient CARE treatment card (including medicines)
	Review information and medications provided in inpatient care, confirm with mother/caregiver medicines received to date and adjust outpatient care medicines for admission
	Follow admission protocols (i.e. do anthropometry, take medical history, do physical examination, test appetite, calculate RUTF ration, discuss key messages, fill out RUTF ration card, link with outreach worker)
DISCUSSION WITH MOTHERS/CAREGIVERS AT SITES	
	Where have you come from?
	How long did it take to get here?
	How did you hear about the service?
	Why did you bring your child?

EXERCISE 4.1
OUTPATIENT CARE ADMISSION

Note: In countries where presence of bilateral pitting oedema and mid-upper arm circumference (MUAC) are used for admission, adjust chart to remove information on weight-for-height (WFH) as a z-score (World Health Organization [WHO]) or % of the median (National Centre for Health Statistics [NCHS]).

EXERCISE 4.2 OUTPATIENT CARE TREATMENT CARD AND RUTF RATION CARD

	Age (months)	Appetite	Bilateral Pitting Oedema	MUAC in mm	WFH z-score (WHO)	WFH as a percentage of the median (NCHS)	Admission to outpatient care?
Child 1	7	Yes	No	102	-3 ≤ x <-2	70% ≤ X <80%	
Child 2	24	Yes	No	112	x <-3	X < 70%	
Child 3	20	Yes	No	98	x <-3	X < 70%	
Child 4	16	Yes	++	117	-3 ≤ x <-2	70% ≤ X <80%	
Child 5	36	Yes	+	115	-3 ≤ x <-2	70% ≤ X <80%	
Child 6	12	No	No	95	x <-3	X < 70%	
Child 7	50	Yes	No	102	x <-3	X < 70%	
Child 8	45	Yes	No	111	x <-3	X < 70%	
Child 9	7	Yes	No	107	-3 ≤ x <-2	70% ≤ X < 80%	
Child 10	5	No	No	104	x <-3	X < 70%	

EXERCISE 4.2
OUTPATIENT CARE TREATMENT CARD AND RUTF RATION CARD

Below is all of the information needed to complete the front and back of an outpatient care treatment card and a ready-to-use therapeutic food (RUTF) ration card.

A CHILD REQUIRING ADMISSION TO OUTPATIENT CARE

First section of admission details
- The next registration number available is 015. The outpatient care site code is GRG.
- The child's name is Mohammed Ahmed.
- He lives in Lusaka District; his community is Bombali.
- Mohammed is 17 months old.
- He has come directly from his community after a community volunteer referred him to CMAM services.
- He lives in a house with his mother, father, grandfather and five brothers and sisters.
- It took 20 minutes for his mother to walk with him from their house to the outpatient care site.
- There is no general food distribution where he lives.

Admission anthropometry
- He weighs 6.8 kg.
- His height is 76 cm.
- His mid-upper arm circumference (MUAC) is 104 mm.
- He has no bilateral pitting oedema.

What are his admission criteria?

Medical History
- His mother says he has had diarrhoea for the past week and passes four to five loose stools every day.
- He does not vomit.
- He passes urine with no problem.
- He occasionally has a cough.
- His appetite is generally good.
- He no longer breastfeeds.
- She reports no other problems but says he has been getting thinner for some time.

Physical examination
- He has 38 respirations per minute, and there are no chest retractions.
- His temperature is 36.9° C.
- His conjunctiva is pink.
- His eyes are wet and have no discharge.
- Although his skin is saggy, he shows no apparent signs of dehydration.
- He has a discharge from his left ear.
- His mouth is clear, and there are no enlarged lymph glands.
- He has no apparent disabilities.
- His skin looks good.
- His hands and feet are warm.

Routine admission medication
His mother has his expanded programme of immunisation (EPI) card; he was given all his vaccinations and Vitamin A three weeks ago.

RUTF appetite test
By the time Mohammed is seen, he has already eaten half a packet of RUTF.

EXERCISE 4.3

IDENTIFYING CHILDREN WHO MAY NEED REFERRAL TO INPATIENT CARE OR FOLLOW-UP HOME VISITS

CHILD A
Child A is two years old, has a mid-upper arm circumference (MUAC) of 109 mm and has been referred by the community health worker (CHW) to CMAM services. On admission, the child refuses to eat the ready-to-use therapeutic food (RUTF) during the appetite test. You ask his mother to move to a quiet area and try again. After a half-hour, the child still refuses to eat the RUTF. During the medical assessment, you discover that the child has had vomiting for two days. What action is needed?

CHILD B
Child B is presented at the outpatient care site with bilateral pitting oedema + and a MUAC of 112 mm. The child has good appetite and no other signs of medical complications. What action is needed?

CHILD C
Child C was admitted to outpatient care with a MUAC of 109 mm and a weight of 10 kg. By the fourth week, the child has lost weight, did not gain any weight for three weeks and now weighs 9.5 kg. What action is needed?

CHILD D
Child D is presented at the outpatient care site with bilateral pitting oedema ++ and a MUAC of 108 mm. What action is needed?

CHILD E
Child E is four months old. The grandmother brings the visibly very wasted and dehydrated child to the health facility. On investigation, you find that the mother died shortly after the child was born and that the child has been given cow's milk and tea. What action is needed?

CHILD F
Child F is presented at the outpatient care site with bilateral pitting oedema +++. You want to refer the child to the hospital. But, despite your best efforts to persuade the mother, her family refuses to let her take the child to the hospital. What action is needed?

CHILD G
Child G is above 6 months and was admitted with a MUAC of 109 mm and a weight of 5 kg. The child gained a little weight the first week but has not gained weight for the past two weeks. His medical assessment does not show any signs of illness or medical complications.

EXERCISE 4.4

PARTIALLY COMPLETED OUTPATIENT CARE TREATMENT CARDS (EXAMPLES)

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Jemma Banda			Reg. N°	LGR / 104	
AGE (months)	24 m	SEX	M (F)	DATE OF ADMISSION	6/12/2007	
ADMINISTRATIVE UNIT	Lusaka			TIME TO TRAVEL TO SITE	25 minutes	
COMMUNITY	Bombali			FATHER ALIVE		
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE		
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	8	
ADMISSION (CIRCLE)	(self referral)	outreach referral	inpatient care referral	health facility referral	TWIN	yes / no
RE-ADMISSION (relapse)	no / yes	ADDITIONAL INFORMATION				

ADMISSION ANTHROPOMETRY

BILATERAL PITTING OEDEMA	+ / ++ / +++					
MUAC (mm)	109	WEIGHT (kg)	8.1 kg	HEIGHT (cm)	84 cm	WEIGHT FOR HEIGHT: 70%
ADMISSION CRITERIA	Bilateral pitting oedema	(MUAC)		Weight for Height		OTHER:

HISTORY

DIARRHOEA	yes	(no)		# STOOLS/DAY	1-3	4-5 / >5
VOMITING	yes	(no)		PASSING URINE	yes	(no)
COUGH	yes	(no)		IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?		
APPETITE	(good)	poor	none	BREASTFEEDING	yes	(no)
ADDITIONAL INFORMATION						

PHYSICAL EXAMINATION

RESPIR. RATE (# min)	<30	(30 - 39)	40 - 49	50+	CHEST INDRAWING	yes	(no)
TEMPERATURE °C	37.2				CONJUNCTIVA	(normal)	pale
EYES	(normal)	sunken	discharge		DEHYDRATION	(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 MEDICATION: ADMISSION

ADMISSION: DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
Amoxicillin	6.12.2007	100,000 iu			
Vitamin A (if not in last 6 months)	6.12.2007	5ml tds x 7 days	Measles immunisation	no (yes)	(EPI card) date: 6.10.2007
Malaria treatment			Fully immunised	no / yes	
2nd VISIT:					
Mebendazole	20.12.2007	500 mg			

OTHER MEDICATION

DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

FOLLOW UP: OUTPATIENT CARE

NAME	Jemma Banda					**REG.N°**		LGR / 104								
Week	ADM. (=0)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Date	6.12	13.1	20.1	27.1	3.2	10.2	17.2	24.2									
ANTHROPOMETRY																	
Bilateral Pitting Oedema (+ ++ +++)	N	N	N	N	N	N	N	N									
MUAC (mm)	109	109	109	111	114	114	116	117									
Weight (kg)	8.1	8.4	8.6	8.6	8.8	9.4	9.6	10									
Weight loss * (Y/N)		N	N	N	N	N	N	N									
Height (cm)	84				84												
Weight for Height	70%																
* If below admission weight on week 3 refer for home visit; If no weight gain by week 5 refer to inpatient care																	
HISTORY																	
Diarrhoea (# days)		6	2	2	0	0	0	0									
Vomiting (# days)		6	0	4	0	2	0	0									
Fever (# days)		2	0	0	0	1	0	0									
Cough (# days)		7	0	0	0	0	0	0									
PHYSICAL EXAMINATION																	
Temperature (°C)	37.2	36.2	37.2	37	36.9	36	36.5	36.8									
Respiratory rate (# /min)	36	38	36	35	38	35	36	35									
Dehydrated (Y/N)	N	N	N	N	N	N	N	N									
Anaemia / palmar pallor (Y/N)	N	N	N	N	N	N	N	N									
Skin infection (Y/N)	N	N	N	N	N	N	N	N									
APPETITE CHECK / FEEDING																	
RUTF test (Passed/Failed)	P	P	P	P	P	P	P	P									
RUTF (# units given)	21	21	25	25	25	25	28	7									
ACTION / FOLLOW UP																	
ACTION NEEDED (Y/N)	N	N	N	N	N	N	N	Y									
Other medication (see front of card)	N	N	N	N	N	N	N	N									
Name of Examiner	AW	AW	AW	CT	AW	CT	CT	CT									
VISIT OUTCOME								SFP									

OK= Continue A= Absent D= Defaulted for 3 visits R= Referral RR= Refused referral C= Cured NR= Non-recovered
HV= home visit X= Died

ACTION TAKEN DURING FOLLOW-UP (INCLUDE DATE)

Child discharged cured to SFP. Given 7 packets of RUTF and mother advised of follow-up care

Name of outreach worker:

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Adam Ali			Reg. N°	LGR / 054
AGE (months)	15 m	SEX	(M) F	DATE OF ADMISSION	6/12/2007
ADMINISTRATIVE UNIT	Lusaka			TIME TO TRAVEL TO SITE	1 hour
COMMUNITY	Bombali			FATHER ALIVE	
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE	
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	7

ADMISSION (CIRCLE)	(self referral)	outreach referral	inpatient care referral	health facility referral	TWIN	yes / no
RE-ADMISSION (relapse)	no / yes	ADDITIONAL INFORMATION				

ADMISSION ANTHROPOMETRY

BILATERAL PITTING OEDEMA	+ / ++ / +++					
MUAC (mm)	106	WEIGHT (kg)	5.1 kg	HEIGHT (cm)	68 cm	WEIGHT FOR HEIGHT	
ADMISSION CRITERIA	Bilateral pitting oedema	(MUAC)		Weight for Height		OTHER:

HISTORY

DIARRHOEA	(yes)	no		# STOOLS/DAY	1-3	(4-5)	>5
VOMITING	yes	(no)		PASSING URINE	(yes)	no
COUGH	yes	(no)		IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?		
APPETITE	good	(poor)	none	BREASTFEEDING	yes	(no)
ADDITIONAL INFORMATION						

PHYSICAL EXAMINATION

RESPIR. RATE (# min)	<30	(30 - 39)	40 - 49	50+	CHEST INDRAWING	yes	(no)
TEMPERATURE °C	37.2				CONJUNCTIVA	normal	pale
EYES	(normal)	sunken	discharge		DEHYDRATION	(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 MEDICATION: ADMISSION

ADMISSION:	DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
	Amoxicillin	6.12.2007	100,000 iu			
	Vitamin A (if not in last 6 months)	6.12.2007	5 ml tds x 7 days	Measles immunisation	no / yes	date: 13.12.2007
	Malaria treatment			Fully immunised	no / yes	
2nd VISIT:						
	Mebendazole	20.12.2007	500 mg			

OTHER MEDICATION

DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

FOLLOW UP: OUTPATIENT CARE

NAME	Adam Ali					**REG.N°**				LGR / 054							
Week	ADM. (=0)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Date	6.12	13.1	20.1	27.1	3.1												
ANTHROPOMETRY																	
Bilateral Pitting Oedema (+ ++ +++)	N	N	N	N	N												
MUAC (mm)	106	106	107	106	105												
Weight (kg)	5.1	5	5.1	5	5												
Weight loss * (Y/N)		y	N	y	N												
Height (cm)	68				68												
Weight for Height																	
* If below admission weight on week 3 refer for home visit; If no weight gain by week 5 refer to inpatient care																	
HISTORY																	
Diarrhoea (# days)		6	2	2	5												
Vomiting (# days)		0	0	4	0												
Fever (# days)		0	0	0	0												
Cough (# days)		0	0	0	0												
PHYSICAL EXAMINATION																	
Temperature (°C)	37.2	36.9	37.2	37	36.9												
Respiratory rate (# /min)	36	38	36	35	38												
Dehydrated (Y/N)	N	N	N	N	N												
Anaemia / palmar pallor (Y/N)	N	N	N	N	N												
Skin infection (Y/N)	N	N	N	N	N												
APPETITE CHECK / FEEDING																	
RUTF test (Passed/Failed)	P	P	P	P	P												
RUTF (# units given)	14	14	14	14	14												
ACTION / FOLLOW UP																	
ACTION NEEDED (Y/N)	N	N	N	N													
Other medication (see front of card)	N	N	N	N													
Name of Examiner	AW	AW	AW	CT													
VISIT OUTCOME																	

OK= Continue A= Absent D= Defaulted for 3 visits R= Referral RR= Refused referral C= Cured NR= Non-recovered
HV= home visit X= Died

ACTION TAKEN DURING FOLLOW-UP (INCLUDE DATE)

Name of outreach worker: