NATIONAL GUIDELINES FOR

COMMUNITY BASED MANAGEMENT OF ACUTE MALNUTRITION IN BANGLADESH



Institute of Public Health Nutrition (IPHN)
Directorate General of Health Services
Ministry of Health and Family Welfare
Government of the People's Republic of Bangladesh

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September 2011

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We have made substantial progress in health and population sector in recent time particularly in reducing child mortality and maternal mortality. However, the challenge remains in improving the nutritional status of children and women in Bangladesh. Investment in managing acute malnutrition contributes to MDG1: eradicate extreme poverty and hunger, MDG2: achieve universal primary education, MDG 4: reduce child mortality and MDG5: improve maternal health. Ministry of Health and Family Welfare is committed to achieve Millennium Development Goals (MDG), particularly health and nutrition related MDGs.

Given the context, I am happy that Institute of Public Health Nutrition has developed National Guidelines for Community based Management of Acute Malnutrition (CMAM). I expect that managers and community level service providers will use this guideline and provide life saving management to children with acute malnutrition at community level.

I must thank Institute of Public Health Nutrition, members of CMAM working group, academics, scientists, public health experts, nutritionists, development partners and all others who have contributed to this guideline development process. I hope that there will be no dearth of sincerity from all concerned individuals and institutions towards implementing this guideline. I wish academics, scientists and development partners will come forward together to address this most vulnerable group of population in the country.

Dr. A. F. M Ruhal Haque (MP)
Minister
Ministry of Health and Family Welfare
Government of People's Republic of Bangladesh

Message

Childhood mortality and morbidity can be reduced through appropriate management of acute malnutrition at community level. Malnutrition is a silent emergency and severe acute malnutrition with or without complications is an acute medical emergency, and it requires immediate management. Community based management of acute malnutrition will maximize the access and utilization of services by the community, and will reduce the burden at health facility.

The National Guidelines for Community based Management of Acute Malnutrition (CMAM) will facilitate to provide effective management of acute malnutrition near to the household. I hope by applying this community based intervention children and women will have better access to nutrition services at their door step.

I appreciate the initiative of Institute of Public Health Nutrition to develop this very important guideline for management of acute malnutrition at community level. I also appreciate the contributions rendered by the members of technical group and development partners particularly UNICEF, WFP, ICDDR,B and Save the Children Fund (USA) to develop this guideline.

Dr. Capt. (Rtd.) Mozibur Rahman Fakir
State Minister
Ministry of Health and Family Welfare
Government of People's Republic of Bangladesh

Ministry of Health and Family Welfare is committed to provide quality health services at facility and near to doorsteps as well. Many sick and malnourished children die at home without care. This case fatality can be reduced through early nutrition management to acutely malnourished children at community level before complications arise.

In Bangladesh about 500,000 children suffer from severe acute malnutrition annually. In most cases these acutely malnourished children receive medical treatment only without nutritional treatment. Development of National Guidelines for Community based Management of Acute Malnutrition (CMAM) is a timely and effective tool to manage severely malnourished children at near to their household.

I congratulate Institute of Public Health Nutrition and partners for their valuable contributions towards the development of National Guidelines for Community based Management of Acute Malnutrition (CMAM) in Bangladesh. I hope, by using this guideline community health service provider will be able to manage acutely malnourished children at community clinics and community health outreach sites.

Dr. Professor (Dr.) Syed Modasser Ali
Advisor to
The Hon'ble Prime Minister of the
Ministry of Health and Family Welfare
People's Republic of Bangladesh
Ministry of Health and Family Welfare
and
Ministry of Social welfare

Message

Despite major accomplishment in reducing child mortality and maternal mortality malnutrition remains a challenge in Bangladesh. In order to address malnutrition, Ministry of Health and Family Welfare has designed to mainstream nutrition services through preventive and curative services of Directorate General of Health Services (DGHS), Directorate General of Family Planning (DGFP) and Community Clinic.

It has been always difficult to bring about a change in the existing process. However, we are committed to continue our works which benefits children and women in Bangladesh. I hope through current Health, Nutrition and Population Sector Programs (HNPSP) we will be able to address malnutrition with special attention to acutely malnourished children and women.

I thank Institute of Public Health Nutrition for taking the initiative to develop the National Guidelines for Community based Management of Acute Malnutrition (CMAM). I expect, by using this guideline, caseload with severe acute malnutrition at facility level are reduced and better services are provided at community level.

We are grateful to all valuable members including academics, scientists, pediatricians, obstetricians, clinicians, public health experts, nutritionist, officers from DGHS, DGFP and community clinic and development partners who contributed in developing the National Guidelines for Community based Management of Acute Malnutrition (CMAM). This is my firm believe that development partners will continue their support in addressing the children with severe acute malnutrition in the community and health facility as well.

Md. Humayun Kabir
Secretary
Ministry of Health and Family Welfare
Government of People's Republic of Bangladesh

Bangladesh is on track in achieving the MDG1. However, unless malnutrition is well addressed it will hinder the child survival agenda as malnutrition is the underlying cause of about 50% childhood mortality. Managing severe malnutrition can reduce 55% of case fatality rate at health facility. However, in previous years severe malnutrition has traditionally been managed at inpatient facilities.

In public health context, clinical management of acute malnutrition is important as prevention of malnutrition. I hope the National Guidelines for Community based Management of Acute Malnutrition (CMAM) is being effectively used at community level by the managers and community service providers of Government institutions and NGOs.

I thank Institute of Public Health Nutrition for undertaking the initiative in developing the guideline in consultation with concern departments of Directorate General of Health Services, Directorate General of Family Planning and Community Clinic.

Professor Dr. Khondhaker Md. Shefyetullah
Director General
Directorate General of Health Services
Ministry of Health and Family Welfare
Government of People's Republic of Bangladesh

Acknowledgement

Poor nutrition severely hinders individual, social and national development. Severe acute malnutrition represents a medical emergency and must be treated immediately. In Bangladesh, approximately half a million children are suffering from severe acute malnutrition. Facility based approach alone will not be enough to address all these children who require both medical and nutrition care.

National Guidelines for Community based Management of Acute Malnutrition (CMAM) has been developed in the context of Health Population and Nutrition Sector Program (HNPSP) strategy. This guideline complements the existing National Guidelines for the Management of Severely Malnourished Children in Bangladesh (2008), which focuses on the integration of the management of acute malnutrition into ongoing routine health services for children 6-59 months and acutely malnourished pregnant and lactating women. This guideline can also be used in emergency programming.

This CMAM guideline aims to manage maximum number of children and women with acute malnutrition without complications through providing services near to the community at decentralized outreach sites including community clinic, EPI outreach sites, NGO and other health outreach sites. A training module on Community based Management of Acute Malnutrition will be developed in conjunction with the National Guidelines for Community Based Management of Acute Malnutrition and National Guidelines for the Management of Severely Malnourished Children in Bangladesh.

Institute of Public Health Nutrition gratefully acknowledges the contributions and suggestions received from CMAM technical working group. Supports and cooperation received from other members of different departments of Ministry of Health and Family Welfare, academics, scientists, clinicians, public health experts and nutritionists are also gratefully acknowledged. Institute of Public Health Nutrition acknowledge the support received from all development partners, particularly UNICEF, WFP, ICDDR,B and Save the Children (USA).

Professor Dr. Fatima Parveen Chowdhury
Director
Institute of Public Health Nutrition (IPHN)
Ministry of Health and Family Welfare
Government of People's Republic of Bangladesh

Content

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Annexes

CHW	Community Health Worker
CMAM	Community Management of Acute Malnutrition
CMC	Child Monitoring Card
CSB	Corn Soy Blend
CV	Community Volunteer
GMP	Growth Monitoring and Promotion
IMCI	Integrated Management of Childhood Illness
MAM	Moderate Acute Malnutrition
MUAC	Mid Upper Arm Circumference
NT	Nutritional Treatment
NS	Nutritional Supplement
PLW	Pregnant and Lactating Women
SAM	Severe Acute Malnutrition
UHC	Upazila Health Complex
WSB	Wheat Soy Blend

Key terms

Acute malnutrition	MUAC < 12.5 cm and/or oedema SAM= MUAC < 11.5cm and/or bilateral oedema MAM= MUAC 11.5cm -<12.5cm
Caregiver	Mother or individual with responsibility for caring the child with SAM or MAM
Community outreach activities	Identification, referral, care and follow up of acutely malnourished children and pregnant & lactating women (PLW). Links between prevention and treatment. Conducted by community health workers and volunteers
Community based management of SAM	Outreach activities and outpatient care for SAM children without complications, and inpatient care for SAM children with complications
Community based management of MAM	Outreach activities and outpatient care for MAM children. Acutely malnourished PLW (MUAC <21cm) may also be included in the outpatient care
Community Health Worker	Conducts community outreach activities and may also treat SAM and MAM directly in the community at household level or outpatient centers/community outreach sites. Health Assistant (HA), Family Welfare Assistant (FWA), Community Nutrition Worker, Community Health Care Provider (CHCP), Community Skilled Birth Attendant (CSBA) and NGO Community Health Workers, Community Nutrition Workers and community volunteers
Inpatient care	Facility based care at the UHC or hospital for children with SAM with complications

Nutritional supplement (NS)	Energy and nutrient dense pre-prepared or local food supplement for treatment of MAM providing at least 800kcal/day additional to home food
Nutritional treatment (NT)	Specialized prepackaged nutritional treatment for SAM without complications equivalent to F100 and providing 175-200kcal/kg/day, preferably made of local food ingredients
Outpatient care	Nutritional treatment and medical management of children with SAM without complications at an outpatient site (or community outreach site). Children with MAM can also be treated at an outpatient site (or community outreach site). Acutely malnourished PLW (MUAC <21cm) may be included
SAM with complications	Child with SAM who has poor appetite/unable to eat and/or oedema and/or medical complications and who requires treatment in a facility
SAM without complications	Child with SAM who has good appetite, no oedema and does not have medical complications, may be treated in the community if there is a provision of such
Service provider	Provider of care for acutely malnourished children and PLW at an outpatient site (or outreach site). This includes any of the following: Community Health Care Provider (CHCP), Health Assistant (HA), Family Welfare Assistant (FWA), Family Welfare Visitor (FWV), Community Skilled Birth Attendant (CSBA), Sub Assistant Community Medical office (SACMO), Medical Assistant (MA), and NGO health or nutrition worker and community volunteer

1. Introduction

In Bangladesh, child and maternal undernutrition is a significant public health problem. In children under five years of age, 48% are stunted and 13.5 % are acutely malnourished, of which 3.4% are suffering from severe acute malnutrition (SAM severely wasted or has bilateral pedal oedema). Acute malnutrition (wasting or oedema) is a serious issue which impacts on mortality and morbidity in young children. In Bangladesh, it is estimated that 2.2 million children are suffering from acute malnutrition. Of these, more than half a million children under five have SAM.[1]

Traditionally children suffering from severe acute malnutrition (SAM) have been managed in a health facility through inpatient care. This requires the child and mother/caregiver must stay at the health facility for several weeks. This poses difficulties for most families. As a result few children with SAM complete treatment and default rates are very high and coverage is very low.

Treating large numbers of children with SAM at the facility is not feasible or desirable and is costly. Targeting of large numbers of acutely malnourished children at the community level through decentralized services is essential in order to reach the maximum number of children. Simple case detection tools can be used to identify cases and refer children for treatment before complications arise. Evidence has shown that when children are identified early, more than 85% of children with SAM do not have medical complications and can be effectively treated at the community level and do not need to go to a facility. Children with SAM without complications can be treated at an outpatient site (or outreach site) in the community or directly at household level by a trained community health worker (CHW). These children receive specific nutritional treatment and routine medical care every week until meets the discharge criteria.

1 WFP/UNICEF/IPHN (2009) Household Food Security and Nutrition Assessment in Bangladesh (2009)

A simple tool is used to distinguish cases of SAM with complications. These cases are transferred to inpatient care at a health facility. Cases of SAM with complications are stabilized at the health facility. This takes about 4-7 days. Once stabilized, children can continue their treatment in the community.[2]

No specific strategy exists in Bangladesh for the management of children with acute malnutrition (MAM and SAM) in the community. Addressing acute malnutrition as soon as it arises will bring down the number of new cases of MAM and SAM. Children with SAM and MAM can be treated at the same outpatient site (or outreach site) in the community. A program which combines in patient care for SAM with complications, outpatient care for SAM without complications and children with MAM is known as Community based Management of Acute Malnutrition (CMAM) program.

1.1 How to use these guidelines

The guidelines provide clear step by step actions for the community based management of acute malnutrition (CMAM). This guideline complements the existing National Guideline for the Management of Severely Malnourished Children in Bangladesh (2008), which focuses on the integration of the management of acute malnutrition into ongoing routine health services for children 6-59 months and acutely malnourished pregnant and lactating women. This guideline can also be used in emergency programming. This guideline should be used for the implementation of any of the CMAM components.

Community outreach activities to identify children with acute malnutrition in the community and at household level, referral to appropriate treatment and follow up at home.

The nutritional and medical management of SAM includes:

- Management of children with SAM without complications in an outpatient (or outreach site) care.
- Referral of children with SAM with complications to inpatient care.

The nutritional and medical management of children with moderate acute malnutrition (MAM) and acutely malnourished pregnant and lactating women with infants less than 6 months (PLW).

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2 WHO/WFP/UNSCN/UNICEF. Community Based Management of SAM. Joint Statement 2007

Key protocols are provided in the annexes. Medical protocols are based on current national policy and protocols. This guideline is intended to be a reference manual for medical staff, health workers and CHWs. A separate pack of protocols for community based service providers will be available in English and in Bangla.

1.2 Who should use these guidelines?

The guidelines should be used by:

- CHWs responsible for conducting community outreach activities including active case finding, referral from the community and follow up.
- Medical staff, health workers and CHWs responsible for the direct care and treatment of children with acute malnutrition.
- Policy makers and program managers responsible for the management of children and PLW with acute malnutrition.
- Supervisors responsible for monitoring and reporting on any component of CMAM.

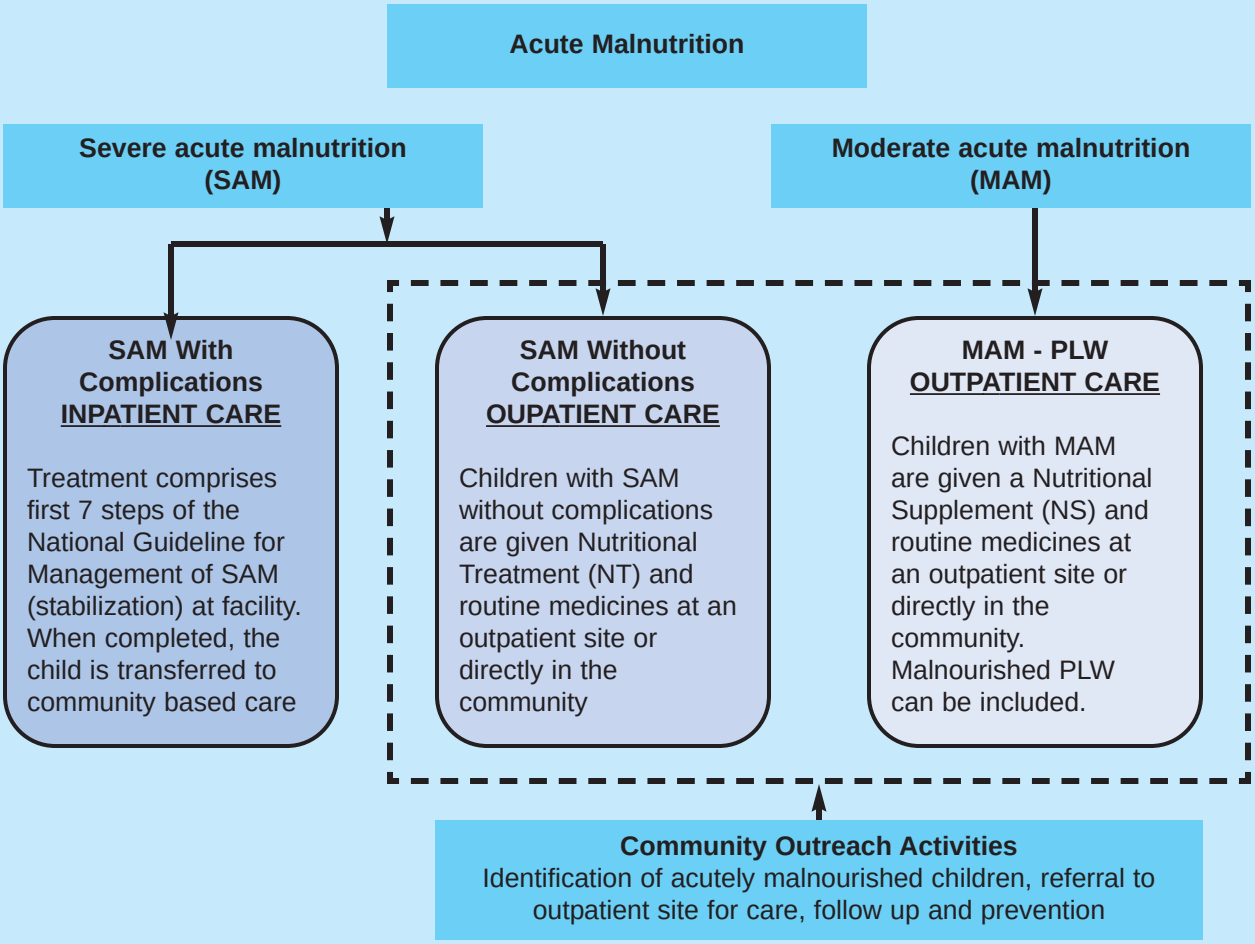
2. Community based management of acute malnutrition (CMAM)

2.1 The components of CMAM

The CMAM approach consists of four components:

- Community outreach activities.
- Community based management of children with SAM without complications.
- Inpatient care of children with SAM and with complications until stabilized.
- Community based management of children with MAM.
- Community based management of acutely malnourished pregnant and lactating women (PLW) with infants less than 6 months.

Components of CMAM



Community outreach activities: Children with acute malnutrition will be identified in the community and at household level using mid upper arm circumference (MUAC) tapes and simple techniques to identify nutritional oedema. Caregivers of children with SAM will be given a referral slip and asked to go to the outpatient site on a certain day. Children with MAM and acutely malnourished PLW may also be included in a community based program. Some children with SAM will require follow up at home. CHWs follow up with children who are absent, who have defaulted or have other problems with their treatment and recovery.

Community based management of SAM without complications: Children with (SAM) WITH appetite and WITHOUT complications will be given Nutritional Treatment (NT) and routine medicines. The children and their caregivers will come to a designated outpatient site every week for a medical check-up and to receive Nutritional Treatment. The management of children with SAM at the outpatient site is the responsibility of a designated service provider. In some cases a trained CHW will directly manage the child at the community level without referral to a designated outpatient site.

Where there is no community based management of SAM, children will be treated according to the National Guidelines for the Management of Severely Malnourished Children in Bangladesh.

Inpatient care for SAM with complications: Children with SAM who do not have appetite and/or WITH complications and severely malnourished infants less than 6 months will be treated in inpatient care until stabilized. Inpatient care for the SAM child with complications will follow the first seven steps of the National Guideline for the Management of Severely Malnourished Children in Bangladesh. Wherever possible, these children will be transferred to an outpatient site once they are stabilized.

Community based management of MAM and PLW: Children with MAM may be managed at the community level using energy and nutrient dense local foods or nutritional supplement which will be provided every two weeks at the outpatient site. Acutely malnourished PLW with infants less than 6 months can also be included in a community based program where resources and capacity are sufficient.

2.2. Enrollment and discharge criteria for community based management of SAM, MAM and acutely malnourished PLW

Enrollment Criteria		
Inpatient care SAM with complications (children 0 - 59 months)	**Community based management (outpatient Care)** SAM without complications (children 6-59 months)	**Community based management (outpatient care)** MAM (children 6-59 months) and acutely malnourished PLW
▶ Bilateral pedal oedema (any grade) **OR** ▶ Marasmic-Kwashiorkor *MUAC <11.5cm with any grade of oedema* **OR** ▶ MUAC <11.5cm **WITH any of the following complications**: ● No appetite/unable to eat ● Persistent vomiting (≥ 3 per hour) ● Fever >39.°c or 102.2° F (axillary temperature) ● Hypothermia < 35.°c or 95°F(axillary temperature) ● Rapid breathing as per IMCI guidelines for age: ≥ 60/min for children <2 months ≥ 50/min for children 2-12 months ≥ 40/min for children 12-59 months ▶ Dehydration based primarily on a recent history of diarrhoea, vomiting, fever or sweating, not passing urine for last 12 hours and on recent appearance of clinical signs of dehydration as reported by the caregiver	▶ MUAC<11.5 cm **AND ALL OF FOLLOWING:** ▶ Presence of appetite ▶ Without medical problems or any complications	▶ MUAC 11.5cm - <12.5cm **AND** No bilateral pedal oedema **AND ALL OF FOLLOWING:** ▶ Presence of appetite ▶ With or without medical complications ● Pneumonia (not severe pneumonia or very severe disease) ● Diarrhea with no dehydration

Enrollment Criteria		
Inpatient care SAM with complications (children 0 - 59 months)	**Community based management (outpatient Care)** SAM without complications (children 6-59 months)	**Community based management (outpatient care)** MAM (children 6-59 months) and acutely malnourished PLW
▶ Severely pale (severe palmer pallor) with or without difficult breathing ▶ Very weak, apathetic, unconscious, fitting/ convulsions ▶ Conditions requiring IV infusion or NG tube feeding **Infants < 6 months** Severe malnourished Infants <6 months who are visibly wasted and or unable to breastfeed		▶ **Pregnant women** MUAC <21cm ▶ **Lactating women with** Infant is under 6 months **AND** MUAC <21cm
Discharge Criteria		
Transfer to outpatient site (6-59 months children) when: ▶ Appetite returned ▶ Medical complications controlled/resolved ▶ Oedema resolved	▶ MUAC ≥11.5cm for two consecutive visits **AND** ▶ 15 % weight gain from admission (or oedema free lowest weight) **AND** ▶ No sign of severe illness as per IMCI protocol/ Clinically well **Transfer to community based management of MAM where possible**	**Children 6-59 months** ▶ MUAC ≥12.5cm for two consecutive visits **Pregnant and lactating women** ▶ MUAC ≥21cm **AND** ▶ Infant completed 6 months

3. Community outreach activities

Community outreach activities are identification, care, referral and follow up of children with acute malnutrition and acutely malnourished PLW. It links between prevention and treatment. It is conducted by community health workers and volunteers.

Protocols and references for this section

Annex 1: Measuring malnutrition
Annex 2: Referral slip from CHW to outpatient site
Annex 3: Checklist for home visit

3.1 The purpose of community outreach activities

The purposes of community outreach activities are to:

- Promote understanding about acute malnutrition.
- Increase program coverage.
- Find children with SAM.
- Find children with MAM if these children are to be included in community based program.
- Find acutely malnourished PLW if they are to be included in a community based program.
- Follow up children who have may be absent or defaulted and those who have problems.
- Understand reasons for absence and default so that they can be addressed.
- Promote strong links between prevention and treatment so that the underlying causes can also be addressed.

3.2 Basic requirements for outreach activities

WHO will conduct the outreach activities?

Community outreach activities will be conducted by CHWs. This includes: Health Assistant (HA), Family Welfare Assistant (FWA), Community Health Care Provider (CHCP), NGO Community Health Workers, Community Nutrition Workers (CNW) and community volunteers

WHERE the outreach activities will be conducted?

Community outreach activities will take place at the community level and at the household level. CHWs will actively identify children with SAM and MAM during ongoing community activities such as growth monitoring and promotion (GMP), at an EPI site during routine vaccination or campaigns, at community clinic and during routine health visits for the well and sick children. CHWs will also find and indentify children in the household. This is called 'active case finding.' CHWs will refer children with SAM, MAM and acutely malnourished PLW to a designated outpatient site (community outreach site) on a certain day.

In some cases the same CHW who identifies the child or PLW will also directly provide nutritional and medical treatment without any referral to a designated site. In this case, the CHW must be specifically trained to manage children with acute malnutrition.

WHEN the community outreach activities will be available?

Community outreach activities are ongoing. Meetings with key community leaders and with the caregivers of children in the program can be held periodically to raise awareness about the community based management of acute malnutrition and to investigate any issues such as high default.

3.3 Basic supplies for community outreach activities

- MUAC tapes
- Referral slips in duplicate copy
- Home visit form and checklist
- Key messages for caregivers of children with SAM and MAM
- IEC materials on prevention of acute malnutrition

3.4 Community dialogue

It is important to directly engage the community from the outset. This can be done initially through meetings with community and religious leaders. Other key community members should also be included. Mothers of young children should be included so that there is full representation of all those concerned with the health of young children.

- Engage in discussion with the community to talk about the problem of malnutrition, causes and possible solutions.
- Discuss the community based management of SAM and MAM and how it will work in practice.
- Agree on relevant groups, organisations, structures to be involved in the program. This may include the recruitment of volunteers/community nutrition workers to help with case finding and follow up
- Develop clear roles and responsibilities of service providers and community.

3.5 Trained CHWs in core functions

Community Health Workers (CHWs) must be trained to identify, refer and follow up children with SAM and MAM. Training can be done in two or five days. Frequent refresher training will be required. Training should include:

- The purpose of community based management of SAM and MAM.
- Basic information on the causes, identification and treatment of malnutrition.
- Practice in identification of oedema and wasting, use of MUAC tape
- Case finding.
- Case referral.
- Health, nutrition and hygiene education (prevention).

3.6 Case finding and referral

In order to reach as many malnourished children as possible, CHWs must actively identify children who need care and refer them for treatment. Children can be identified through:

- House to house visits.
- Growth monitoring sessions and screening.
- During routine health visits for the sick and well child under five.
- At EPI sites during routine vaccination days and campaigns.
- Screening at community meetings.
- Medical check-up at Upazila Health Complex or other health facility.

Children are identified as malnourished using MUAC and assessment for oedema **(Annex 1)**. The criteria used to identify children in the community are the same criteria used for enrollment (see table 1). A simple **Referral Slip from CHW to Outpatient Site (Community outreach site) (Annex 2)** is used to refer children to an outpatient site (community outreach site). This should be done in duplicate copy so that one copy is given to the caregiver and the other is kept for the record by the CHW.

It is important to include mothers and caregivers of children with SAM and MAM as community motivators. Mothers who have seen their malnourished children recover are very motivated and will encourage others to seek treatment and to ensure preventive measures to put into practice. Some mothers/caregivers will emerge as leaders and can play an active role in case finding. Mother to mother support groups should be encouraged wherever possible in the community.

Table 1: Identification and referral of children with acute malnutrition and acutely malnourished PLW at community outpatient site

Target Group	Finding	Action
6-59 months	**MUAC < 11.5cm (RED)**	▶ Refer to outpatient site **CHW providing direct treatment** ▸ Determine complications ● Refer to inpatient care if SAM with complications ● Provide nutritional treatment (NT) and medical care for SAM without complications
6-59 months	**Bilateral pitting oedema (any grade)**	▶ Refer to outpatient site **CHW providing direct treatment** ▸ Refer to inpatient care
6-59 months	**MUAC 11.5cm - < 12.5cm (YELLOW)**	▶ Refer to outpatient site **CHW providing direct treatment** ▸ Provide nutritional supplement (NS) and medical care for MAM/or practical guidance on use of local foods
Pregnant and lactating women	**MUAC <21cm**	▶ Refer to outpatient site **CHW providing direct treatment** ▸ Provide nutritional supplement (NS) and medical care for/or practical guidance on use of local foods
Infants < 6months*	◆ **Visibly wasted infants** ◆ **Infants with oedema** ◆ **Infants too weak or feeble to suckle with failure to gain weight**	▶ Refer to outpatient site for evaluation ▸ Refer to inpatient care

3.7 Role of the CHW in practice

In practice the Community Health Worker (CHW)/Community Nutrition Worker (CNW) may perform different functions depending on the delivery mechanism:

- **Identify and refer to an outpatient site (outreach site) and follow up:**

Identify children with acute malnutrition and acutely malnourished PLW and refer them to a specific outpatient site (outreach site) using the referral slip. The CHW will then be present at the outpatient site and will assist the Health Assistant or designated community outreach health worker to manage cases at the site. The CHW will then follow up cases that are absent, defaulted or require follow up as determined by the health worker.

- **Identify and manage children with SAM and MAM and acutely malnourished PLW (without complecation) directly in the community.**

In addition to identifying cases, the CHW will directly provide nutritional treatment, routine medicines and nutritional advice. This delivery mechanism requires one CHW for an average of 200 households to ensure a manageable caseload. CHWs providing direct nutritional and medical treatment for SAM and management of MAM require specific training.

3.8 Follow-up visits

CHWs play an important role in tracing children who are absent or have defaulted and encouraging the caregivers to return. Children who have static weight or have lost weight also require follow up at home. In order for follow up to be effective, there must be good linkage between the outpatient site and the community health workers and volunteers. CHWs should be present at the outpatient site in order to:

- Assist the Health Worker at the outpatient site/outreach site
- Follow up children who are absent or defaulted or if there are other reasons for follow up as determined by the health care provider
- Ensure children referred for further care/other programs

During home visits, the CHW can use a check list and complete a simple **Home Visit Form (Annex 3).** The form should be completed in duplicate. One copy will be preserved by caregiver of SAM/MAM child and another copy with the health worker.

4. Community based management of Severe Acute Malnutrition (SAM)

Protocols and reference sheets for this section

4.1 The purpose of community based management of SAM

The purpose of community based management of SAM is to decentralize the management of SAM to as many communities as possible so that a maximum number of children can be reached. Once children are identified with SAM, the child should be checked to determine if there are any complications according to the **Classification of SAM** **(Annex 4)**. Cases of SAM with complications will be referred to inpatient care at the UHC. Once stabilized, they will then continue treatment in the community based program/outpatient care. The majority of children with SAM do not have complications. These children can be effectively treated at home without the need for referral to inpatient care.

4.2 Delivery mechanisms in practice

Children will be screened and indentified as SAM through community outreach activities. There are two possible options

- Referral to an outpatient site
- Direct treatment by a CHW at the community outreach site of household level

Outpatient site/ community outreach site:

An outpatient site/community outreach site will be managed by a service provider (either a trained community health worker or skilled health worker). Children identified as SAM during community outreach activities will be given a referral slip and will attend the outpatient site on a specific day. The service provider at the outpatient site will determine if the child has complications that require transfer to inpatient care. Children with SAM without complications will receive nutritional treatment and routine medical care every week on a specific day until discharge. CHWs and community volunteers will be present at the outpatient site/community outreach site and will follow up cases that are absent, defaulted or require follow up as determined by the health worker.

Direct management of SAM at the community/household level by a trained CHW:

In addition to identifying cases, a trained CHW can manage children with SAM at the household level without any need for referral to an outpatient site/community outreach site. The CHW will determine if a child has complications that require transfer to inpatient care. Children with SAM without complications will receive nutritional treatment and routine medical care every week on a specific day until discharge.

4.3 Basic requirements for community based management of SAM

WHO will manage community based SAM:

The outpatient site/community outreach site is managed by a designated service provider. This may be a skilled trained health worker or a trained CHW.

Direct management of SAM cases in the community can be managed by a trained CHW**.** This delivery mechanism ideally requires one trained dedicated CHW for an average of 200 households to ensure a manageable caseload.

WHERE the community based SAM will be managed:

An outpatient site/community outreach sites can be operated at any of the following: Satellite/Outreach Clinic, Community Clinic, Union Health and Family Welfare Centre (UHFWC), Union Sub-Centre, UHC outdoor facility, NGO static clinic, mobile clinic, outdoor facilities of secondary and tertiary hospitals and other community based outreach sites.

The outpatient site/ outreach site should be as close as possible to the community in order to avoid issues of drop out. In some cases, when children start to improve, mothers/caregivers may not be motivated to attend weekly visits. Follow up of children who are absent or default from the outpatient site/community outreach site is therefore essential.

Direct management of SAM at community/household level takes place in the community often at the home of the CHW and sometimes at a certain location in the community which is immediately accessible such as an EPI site or NGO operation community based sites.

WHEN the services for SAM management will be provided at community outreach site:

Community based management of SAM will be available on weekly basis. This will usually take place on a designated day each week. Weekly visits continue on a weekly basis until the child is ready for discharge. An outpatient site may operate every two weeks when: Poor access or long distances to the outpatient site makes it difficult for caregivers to attend weekly and/or the caseload of children is very large.

4.4 Basic supplies for management of SAM

Basic equipments	Basic supplies
• MUAC tapes • Weighing scales • Thermometer • Watch/ARI Timer • Scissors • Clean water for drinking (jug and cups) • Water and soap for hand-washing	• Child Monitoring Cards • Management Protocols • Transfer slips to inpatient care • List of inpatient treatment sites • List of other outpatient sites in the area • Essential medicines as required in the routine medical protocol • Nutritional Treatment (NT)

4.5 Nutritional Treatment for SAM without complications

Nutritional Treatment (NT) is a specially prepared and pre-packaged treatment for SAM without complications. Nutritional Treatment is oil based energy-dense mineral/vitamin enriched nutritious food. It contains 450-550kcal/100g of which fat is 45-60% of total energy and protein (including milk products) is 10-12% of total energy. It has similar nutrition contents as F100 which is recommended by the World Health Organization (WHO) for the treatment of severe acute malnutrition in recovery phase. Multi-micronutrient content of NT is equivalent to F100. Nutritional Treatment does not require any mixing or cooking, therefore there is minimal chance to microbiological contamination. NT is soft and crushable with

smooth homogenous texture. It can be consumed directly from the packet. It has very little water content and therefore can be safely stored at home in a dry place without risk of contamination. As it does not require cooking loss of micronutrients by heat is minimal.

Nutritional Treatment (NT) for SAM without complications should be sought from pre-qualified supplier in order to ensure that recommended international and national quality and safety standard (including packaging) of such food are adhered to at all time. Nutritional Treatment for SAM without complications can be imported or procured locally wherever possible. Locally produced NT, made of local food ingredients, meeting international and national standards for quality, safety and cost, is preferred for community based management of SAM.

The amount of NT given is based on weight (175 - 200 kcal/kg/day).

Nutritional Treatment (NT) should be given after breastfeeding. No other foods (other than breast milk) should be given for at least one week. After one week, additional home foods may be given AFTER breastfeeding and NT if the child still has appetite. Plenty of safe drinking water should be available to children taking NT.

Where NT is not available, children with SAM without complications should be referred to the UHC and treated according to the National Guidelines for the Management of Severely Malnourished Children in Bangladesh. Following the initial phase of treatment, children may be managed at home. Mothers and caregivers will be advised on the preparation of high energy nutrient dense foods. Animal protein should be added to foods prepared at home. Milk products should also be added where possible. A multi-micronutrient supplement must also be included.

4.6 Enrollment in community based management of SAM

Target group:

Children with SAM aged 6-59 months who meet the enrollment criteria.
All children with SAM with MUAC <11.5 are enrolled in the community based program.

A determination is then made as to whether there are complications that require transfer to inpatient care. Children transferred to inpatient care will return to the outpatient care/community outreach site once stabilized.

Other cases such as:

- **Severe malnourished infants less than 6 months.** Severe malnourished infants less than 6 months should be referred to inpatient care since they require supervised specific treatment.
- **Transfer from other site:** Families moving from one area to another may continue in the new outpatient site until discharge criteria are met.
- **Return after default:** Children who return after defaulting within one month are readmitted if they still fulfill the enrollment criteria.

Enrollment criteria for community based management of SAM

Category	Criteria
Children 6-59 months	• MUAC <115 mm or 11.5cm OR • Bilateral pedal oedema (+) if caregiver refuse to admit the child in the health facility *(Note: Refer SAM* cases with oedema to UHC is the first choice of treatment. If caregiver refuses to admit the child at health facility then provide service at community outreach site) AND • Presence of appetite AND • Without medical problems or any complications

4.7 Enrollment procedure steps

STEP 1: Measure MUAC, weight and assess for oedema

- Measure MUAC.
- Check for oedema.
- Measure weight.
- If the child meets the criteria for enrollment, complete the admission section of the **Child Monitoring Card (CMC) (Annex 5)** and assign a card number.
- Calculate the target weight using the **15% Weight Gain Chart (Annex 6)**. For Children admitted with oedema the baseline weight should be taken AFTER oedema has disappeared.

STEP 2: Assessment

- Take a medical and dietary history and record results on the CMC.
- Conduct a physical examination, and record results on the CMC.
- Use the **Action Protocol (Annex 7)** to determine if there are any medical complications.
- If the child has medical complications or oedema of any grade, transfer the child to inpatient care at the UHC**.** If caregiver refuses to admit the child at health facility then provide service at community outreach site. **Go to STEP 4.**
- If the child has no medical complications. **Go to STEP 3**.

STEP 3: Appetite Test

- The child's appetite must be assessed to see if the child will eat the nutritional treatment necessary for recovery.
- Ask the caregiver to wash their hands and the child's hands with soap.
- Give the mother/caregiver the Nutritional Treatment (NT) and ask the caregiver to give the NT to the child and watch to see if the child eats. This is called an "appetite test"
- If the child is reluctant to eat, the caregiver should move to a quiet and private area to encourage the child to take the NT. This may take up to **45 minutes**. It is essential that the child is observed eating at least two small spoonfuls of NT. Care must however be taken to ensure the child is not forced to eat.

STEP 4: Decide if the child should be transferred to inpatient care

Transfer to inpatient care is required according to the Action Protocol when the child:

- Refuses to eat little amount of food or no appetite
- **And/or** has any medical complications
- **And/or** has oedema of any grade
- Severe malnourished infants < 6 months

If the child meets criteria for transfer to inpatient care:

- Explain the situation to the caregiver.
- Advise the caregiver to keep the child warm. If possible give the first antibiotic dose.
- Complete a **Transfer Slip to Inpatient Care** **(Annex 8)**. One copy is given to the caregiver and the other is kept in the file. When the child returns from inpatient care, a return transfer slip will be completed by medical staff at the inpatient care health facility.
- Note the transfer to inpatient care on the CMC and note the date of transfer. File the CMC under "Children transferred to UHC"

STEP 5: Enrollment and management of children with SAM without complications

Children may be enrolled **directly** if they have appetite, do not have oedema or any medical complications.

- Explain the treatment to the mother/caregiver.
- Explain how NT should be used using the **Key Messages (Annex 8)**. Emphasise that CLEAN drinking water should be available to the child at all times.
- If the mother is still breastfeeding, advise her to give the NT to the child *after* breast-feeding. Emphasize that NT is important for the recovery of the child and should not be shared.
- Give medicines according to the **Routine Medical Protocol (Annex 10).** First dose of antibiotic should be given on enrollment and the mother shown how to use it.
- Check immunization status. If required immunisations have not been given, refer the child for immediate immunization.
- Provide NT for one week according to the weight of the child using the **NT by Weight Chart (Annex 11)**

STEP 6: Make the next appointment

- Give the mother/ caregiver an appointment time for the next visit in following week.
- Complete the CMC and file in the under “Children currently in the outpatient care for SAM.”

4.8 Weekly follow up visits until discharge

Children and their mothers/caregivers will have a weekly appointment at the outpatient site or with the CHW if managed directly at the community level. Every week the child will have a medical check-up and receive NT. The weekly visits are recorded on the follow up section of the CMC. At every visit the following steps should be taken:

STEP 1: Take measurements

- Take MUAC, weight and assess for oedema at every visit.

STEP 2: Appetite test and medical check

- Appetite test is done at every follow up visit.
- Conduct the medical check-up and determine if NT has been taken, other foods given and any illness in the last week. Record this on the CMC.
- Complete doses of medicines according to the routine medical protocol.

STEP 3: Determine the need for transfer to inpatient care or follow up visit at home

Follow the Action Protocol **(Annex 7)** to determine if there are complications and determine if there is a need to transfer to inpatient care or if follow up by a community health worker or community volunteer is needed at home. Children should be transferred to inpatient care at any time during treatment in the outpatient program according to the Action Protocol if:

- Medical condition deteriorates.
- Increase in bilateral pedal oedema.
- Weight loss for three consecutive weeks.
- Static weight (no weight gain) after five weeks.
- Target weight has not been reached after 2 months

Children should be followed up at home by a community health worker or community volunteer according to action protocol if:

- Child has lost weight on two consecutive visits.
- Weight or medical condition has not improved
- Child was initially treated in inpatient care.
- The child has been absent or defaulted
- There are issues with care and feeding practices at home

The findings of the home visit should be noted on the CMC

STEP 4: Provide Nutritional Treatment

- Use the weight chart to provide the appropriate amount of NT according to weight. The child's weight will increase and an increased amount of NT may be required.
- Complete the CMC and make an appointment for the next visit.

4.9 Messages on prevention of SAM

The management of children with SAM in the community presents a good opportunity for prevention messages and activities. When a child is first enrolled, the key messages about how to use NT, routine medicines, breast feeding and basic hygiene messages should be clearly understood.

Simple prevention messages can be developed for use at the outpatient site and in the community that complement the key messages and attempt to address some of the underlying reasons for the child becoming malnourished in the first place. It is essential that messages be reinforced by practice. These messages should focus on: basic hygiene such as hand washing, breast feeding, the importance of frequent and active feeding and what local foods to give young children; identifying malnutrition; home based management of diarrhea, acute respiratory tract infection (ARI) and fever and recognising danger signs.

Before discharge, children should begin to eat high energy nutrient rich local foods including oil and animal products. Community health workers should ensure that the mother/caregiver knows what foods to give the child, how to prepare local foods and how often to feed the child before the child is discharged. In addition to the key messages, four essential messages must be given (and practiced) in a community based program for the management of SAM.

- Hand-washing with soap before eating and after defecation.
- Recognizing danger signs
- Exclusive breastfeeding until infant is 6 months.
- Introduction of appropriate energy/nutrient dense foods including oil and animal products after completion of 6 months of age; from 181 days (according to the **IYCF/CMAM Recommended Feeding Practices** in **Annex 12).**

4.10 Discharge criteria

Children are ready for discharge from outpatient site when the following criteria are met.

Category	Criteria

Recovered	• MUAC >115 mm or >11.5cm
	For two consecutive visits (one week apart)
	And
	• 15% weight gain from admission (or edema free lowest weight)
	And
	• No other severe classification (according to IMCI protocol)
	  • any general danger sign
	  • Chest indrawing
	  • Stridor in a calm child

Defaulted	Absent for 3 consecutive visits
Died	Died while enrolled in the program
Not recovered/ non-responder*	Has not reached discharge criteria within 3 months of admission

*Before this time, children should have been followed up at home. Children who have had weight loss for 3 consecutive weeks or have not gained weight for 5 consecutive weeks must be transferred to inpatient care according to the Action Protocol. Children who have not met the discharge criteria after 3 months in the program should be referred to the UHC/District Hospital for medical attention.

4.11 Discharge procedure

Step 1: Determine if child has met discharge criteria

- ▶ Explain to the mother/caregiver that the child is recovered (or if not recovered why s/he is being discharged).
- ▶ Note the final outcome on the CMC card and file the card under “Children discharged, recovered or non-recovered.”

Step 2: Advice to mothers/caregivers

- Advise the mother/caregiver to take the child to the nearest outpatient site or health facility if the child refuses to eat or has any of the following:
  - High fever
  - Frequent watery stools with blood
  - Diarrhoea lasting more than 3 days
  - Difficult or fast breathing
  - Vomiting
  - Development of oedema
- Counsel the mother/caregiver on appropriate feeding practices and the importance of continued breastfeeding for children less than two years.
- Ensure the caregiver understands how to use any medications that have been given / prescribed.

Step 3: Include child in community based management of MAM (where available)

- Treatment for MAM may be included at the outpatient site or at the community/household level.
- Explain to the mother/caregiver that the child will remain in community based program for MAM.
- If a specific program for MAM is not available, refer children to other ongoing community health and nutrition programs and health education and communication interventions (IEC).
- Children who have not met the discharge criteria after three months in the outpatient program should be referred to the UHC/District Hospital for medical evaluation.

5. Community based management of Moderate Acute Malnutrition (MAM)

Protocols and reference sheets for this section

Annex 1: Measuring Malnutrition
Annex 12: Recommended IYCF practices for CMAM
Annex 13: Child Monitoring Card for MAM
Annex 14: Action protocol for MAM
Annex 15: Routine medical protocol for MAM
Annex 16: Energy and nutrients dense local food recipes

5.1 The purpose of community based management of MAM

The purpose of the community based management of MAM is to provide decentralized services for as many acute malnourished children as possible. Children aged 6-59 months with MAM can be identified and treated at an outpatient site or directly at the community level by a trained CHW. Children with MAM will receive basic medical treatment and mothers/caregivers counsel on the use of high energy/nutrient dense local foods fortified with micronutrients in the outpatient care. Where this is available, children with MAM may receive a specific nutritional supplement (NS).

5.2 Delivery mechanisms in practice

Children will be screened and indentified as MAM through community outreach activities. There are two possible options

- Referral to an outpatient site
- Direct management of MAM by a CHW at the community level

Outpatient site:

An outpatient site will be managed by a service provider (either a trained community health worker or skilled health worker).

Children identified as MAM during community outreach activities will be given a referral slip and will attend the outpatient site on a specific day and receive a nutritional supplement and basic medical treatment every two weeks until discharge.

Direct management of MAM at the community level by a trained CHW:

In addition to identifying cases, a trained CHW can manage children with MAM at the community level. Children will receive nutritional supplement and basic medical treatment every two weeks until discharge. The CHW may also manage cases of MAM through specific counseling on the use of energy/nutrient dense local foods fortified with micronutrients.

5.3 Basic requirements for community based management of MAM

WHO will manage MAM cases:

The outpatient site is managed by a designated service provider. This may be a skilled trained health worker or a trained CHW.

Direct management of MAM cases in the community can be managed by a trained CHW**.** This delivery mechanism ideally requires one trained CHW for an average of 200 households to ensure a manageable caseload.

WHERE the MAM cases will be managed:

Children with MAM may be managed at an outpatient site

Direct management of MAM at community level takes place in the community often at community outreach site near to the CHW and sometimes at a certain location in the community which is immediately accessible such as an EPI site.

WHEN the services will be provided:

The community based management of MAM will be available in every two weeks on a designated day until discharge.

5.4 Basic supplies for management of MAM

Basic equipments	Basic supplies
• Weighing scales • MUAC tapes • Clean water for drinking (jug and cups) • Water and soap for hand-washing	• CMC for MAM • Key messages • Essential medicines • Nutritional supplement (if available) • Materials on use of energy/nutrient dense local foods

5.5 Nutritional management of MAM

The nutritional management of MAM aims to provide additional energy and nutrient density to the existing home based diet to support catch up growth. This means adding at least 25kcal/kg/day over and above the energy requirements of a well-nourished child. This should be done by encouraging increased intake of home food. The staple cereal (rice) should be fortified with micronutrient powder, and animal source of food (fish, egg, milk etc.) included in the diet. De-worming should be done at least 6 monthly intervals. Intercurrent infections should be appropriately treated. Hygiene should be promoted to prevent infection.

Children with MAM living in extremely food insecure conditions where the caregivers may not be able to provide the additional food will require a nutritional supplement (NS).The NS should ideally provide 700-1000 Kcal/child/day with 25-30% of energy from fat and 10-12% of energy from protein.

5.6 Enrollment in community based management of MAM

Target group:

Children with MAM aged 6-59 months with appetite (ability to eat) and without medical complications who meet the enrollment criteria.

Other cases such as:

- *Children discharged from SAM*: Children who have completed treatment for SAM should continue treatment as MAM.
- *Return after default*: Children who return after defaulting (absent more than two weeks). Returning defaulters are readmitted if they still fulfill the admission criteria.

Enrollment criteria for community based management of MAM

Category	Criteria
Children 6-59 months	• MUAC ≥115 mm to <125 mm (≥11.5 cm to < 12.5 cm) **AND** • No oedema **AND** • Presence of appetite With or without infection, like: • Pneumonia (not severe pneumonia or very severe disease) • Diarrhoea with dehydration (No danger signs according to IMCI protocol)
Other reasons for enrollment	
Discharged from SAM	Child is transferred to MAM after completion of treatment for SAM in the outpatient program
Return after default	Children who return after default (absent more than 2 visits)

5.7 Enrollment procedure steps

STEP 1: Measure MUAC, weight and assess oedema

- Measure MUAC. If MUAC is less than 11.5cm, transfer the child to the program for SAM.
- Check for oedema. If there is bilateral pedal oedema the child should be treated as SAM and referred to inpatient care.
- Measure weight.
- If the child meets the criteria for enrollment, complete the admission section of the **CMC for MAM** **(Annex 13)** and assign a registration number.

STEP 2: Assessment

- Complete the enrollment section of the CMC.
- Take a history of feeding practice and assess for danger signs according to the Action Protocol for MAM
- If any danger sign is present refer the child to the health facility for medical assessment/treatment according to the **Action Protocol for MAM** **(Annex 14).**
- Provide basic medical treatment according to the **Routine Medical Protocol for MAM** **(Annex 15).** Children transferred from the outpatient program for SAM should not be given routine medical treatment again.

STEP 4: Counsel on home based diet to support catch up growth or Provide Nutritional Supplement (NS) if available

- Explain to mothers/caregivers the necessity of additional energy and nutrients to support catch up growth of the child and available local food recipes **(Annex 16)**
- Provide specific messages on home based diet following standard IYCF protocols and or demonstrate the procedures of family food fortification with micronutrient powder

If NS available

- Provide the Nutritional Supplement (NS) ration for two weeks according to the **Nutritional Supplement Reference Chart for MAM**
- Explain how the Nutritional Supplement is to be used for the child using the **Key Messages for Nutritional Supplements.** Ensure the mother/caregiver understands that the NS is intended **for the malnourished individual and is not to be share**d.

STEP 5: Make an appointment for the next visit in two weeks.

Make an appointment for the next visit in two weeks. File the CMC in the file under “Children currently in the outpatient care for MAM.”

5.8 Follow up visits every two weeks until discharge

Children and their mothers/caregivers will have an appointment every two weeks at the outpatient site or with the CHW if managed directly at the community level. At each visit, the child will be assessed and counseled on the use of energy/nutrition dense local foods. If available, receive the nutritional supplement.

- At each visit the MUAC and weight is measured and oedema is assessed.
- Children with danger signs should be referred to the nearest health facility.
- If the child has not gained weight after three two weekly visits or if the child is loosing weight refer him/her for a medical check up at the nearest in-patient care or health facility.
- Children who are enrolled as MAM and then deteriorate or develop oedema should be transferred to the program for SAM.

5.9 Messages on prevention of MAM

Four essential messages must be given (and practiced) in a community based care for the management of MAM. If NS given, clear advice must to be given to mothers/caregivers on how to store and prepare the NS.

- Exclusive breastfeeding (for 6 months)
- Introduction of appropriate energy and nutrient dense foods, including oil and animal products from 6 months of age **(IYCF Recommended Practices for CMAM Annex 12)**.
- Hand-washing with soap before eating and after defecation.
- Recognizing danger signs

5.10 Discharge criteria

Children are ready for discharge when the following criteria are met.

Category	Criteria

Recovered	• MUAC ≥12.5cm
	For two consecutive visits (one week apart)
	And
	• No other severe classification (according to IMCI protocol)
	  • any general danger sign or
	  • Chest indrawing
	  • Stridor in a calm child

Defaulted	Absent for 2 consecutive visits
Died	Died while enrolled in outpatient program
Non-responder	Child has not reached discharge criteria within 4 months of admission

6. Community based management of acutely malnourished Pregnant and Lactating Women (PLW)

Protocols and reference sheets for this section

Annex 17: Monitoring card for Pregnant and Lactating Women (PLW)

Annex 18: Routine medical protocol for acutely malnourished Pregnant and Lactating Women

6.1 Enrollment of acutely malnourished pregnant and lactating women (PLW) with infants less than 6 months

Acutely malnourished PLW with infants less than 6 months may be enrolled in an outpatient care where resources permit and capacity is sufficient to manage the caseload. The Nutritional Supplement (NS) options are the same as those for children with MAM. PLW attend every two weeks. The following enrollment criteria are used:

Enrollment criteria for PLW

Category	Criteria
Pregnant women and lactating women with infants <6 months	MUAC < 21cm (210 mm) **And** Infant less than 6 months with or without complications

6.2 Enrollment procedure for acutely malnourished PLW

STEP 1: Measure MUAC and weight.

- If the woman meets the criteria for enrollment, complete the admission details on the **Monitoring Card for PLW** **(Annex 17**) and assign a number.

STEP 2: Assessment and Nutritional Supplement (NS)

- Take a dietary history and determine immunization status and pregnancy care.
- Provide basic medical care according to the Routine Medical Protocol for PLW **(Annex 18**).
- Provide advice on diet including the need for the following in addition to or instead of the Nutritional Supplement (NS):
  - Add one fist of additional food to your three main meals
  - Add additional oil to your food
  - Eat animal foods (fish, eggs, meat, liver, milk and cheese), dal and/or pulses; green leafy vegetables, orange and yellow fruits and vegetables.

If NS available

- Provide the Nutritional Supplement (NS) ration for two weeks according to the **Nutritional Supplement Reference Chart for acutely malnourished PLW**
- Explain how the supplement is to be used for the child using the **Key Messages for Nutritional Supplements.** Ensure the PLW understands that the NS is intended **for acutely malnourished PLW and is not to be shared**.

STEP 3: Make next appointment

- Give an appointment for the following visit in two weeks
- Complete the monitoring card for PLW and file in the folder under “PLW in the outpatient care”.

6.3 Follow up visits for acutely malnourished PLW

PLW will have an appointment every two weeks at the outpatient site or with the CHW if managed directly at the community level. At each visit, the PLW will be assessed and receive the advice on diet. If available, receive Nutritional Supplement (NS).

- At each visit MUAC and weight is taken and recorded.
- Check compliance with medical treatment, dietary advice and discuss any issues.
- Women with oedema or any medical complications should be referred to the nearest health facility.
- PLW will stay in the program until the infant is 6 months of age (180 days).

6.4 Discharge criteria

PLW are ready for discharge when the following criteria are met

Category	Criteria
Recovered	MUAC ≥ 21mm **And** Infant completed 6 months (180 days)
Defaulted	Absent for 2 consecutive visits
Died	Died while enrolled in outpatient program
Non-responder	N/A

7. Monitoring, reporting and supervision

Protocols and reference sheets for this section

Annex 19: Tally sheets for weekly program monitoring and reporting
Annex 20: Monthly Report Format: Outpatient care for SAM and MAM
Annex 21: Performance indicators and calculating rates
Annex 22: Monthly Narrative Report Format
Annex 23: Supervision checklist
Annex 24: Supply requirement for outpatient care for SAM
Annex 25: Supply Requisition Form for supervisors and program managers

7.1 The purpose of monitoring and reporting

It is important to know if the program is effective. Monitoring helps to know what is working well and where there might be gaps. Management and information systems (MIS) must provide sufficient minimal information to determine effectiveness. To understand the program effectiveness, it needs to be monitored the individual child/woman and the performance of the program as a whole.

Individual child/woman: Individual child should be tracked as s/he is transferred between different components to ensure that treatment and enrollment/discharge procedures are followed and documented correctly.

Program Data on enrollments and discharges/exits (statistical data) should be compiled weekly for management of SAM at outpatient care and every two weeks for MAM and PLW at community level) using a tally sheet at the outpatient site or by the CHW managing the program at the community level. The tally sheets will be collected by a supervisor and used to complete a monthly report at the community level and eventually at UHC level.

7.2. Terms used in monitoring and reporting

The following terms are used in the management, monitoring and reporting of SAM, MAM and acutely malnourished PLW

Definition of terms used in monitoring and reporting

Term	Inpatient Care	Outpatient Care		
		SAM	MAM	PLW
Recovered	Discharged to outpatient site once stabilized	Meets discharge criteria	Meets discharge criteria	Meets discharge criteria
Absent	N/A	Missed one or more visits	Missed one or more visits	Missed one or more visits
Default	Absent more than 2 days	Absent 3 consecutive weeks	Absent 2 consecutive visits	Absent 2 consecutive visits
Death	Died when in inpatient care	Died while enrolled in outpatient care	Died while enrolled in outpatient care	Died while enrolled in outpatient care
Non-responder	Does not meet exit criteria after 14 days	Does not meet discharge criteria after 3 months	Does not meet discharge criteria after 4 months	N/A
Relapse	Discharged from inpatient and once again meets admission criteria	Discharged recovered and once again meets enrollment criteria	Discharged recovered and once again meets enrollment criteria	N/A
Medical transfer		Transferred for medical investigation	Transferred for medical investigation	Transferred for medical investigation
Return after default		Defaulted and returns to the outpatient care within a month	Defaulted and returns to the outpatient care within a month	Defaulted and returns to the program within a month
Transfers in and out				
Transfer IN FROM inpatient care		Transferred to outpatient care after discharge from inpatient care		
Transfer OUT TO inpatient care		Transferred from outpatient care to inpatient care		

7.3 Monitoring of individual child and PLW in the program

Monitoring cards should be kept at the outpatient site/community outreach site by the service providers. It is essential that cards are stored and filed properly. Cards could be kept in plastic sleeves and stored in files that are organized into sections as shown below.

If the outpatient care includes MAM and PLW as well as SAM cases, there will need to be files for each category.

An existing MOHFW service card can be given to the mother/caregiver. The card contains key information about the child and basic information on their progress (MUAC, weight, nutritional treatment/supplement received). A new card could be introduced, if the existing card does not include the monitoring indicators for SAM, MAM and acutely malnourished PLW management at community level

File 1: Currently in outpatient care	File 2: Exits from outpatient care
Section 1: Cases currently enrolled **Section 2: Absentees**: Cases who have missed one or more visits **Section 3: Transfers awaiting return:** These are SAM cases who have been transferred from the outpatient care to inpatient care	**Section1: Recovered**: Cases who have met the discharge criteria Check in this file for any re-admissions **Section 2: Defaulters**: Cases who have defaulted may return. *If they return within one month the same card is used.* **Section 3: Non-responders**: Cases who do not meet discharge criteria after 3 months in the outpatient care for SAM and 4 months for MAM **Section 4: Deaths**: Cases who have died while in the outpatient care **Section 5: Medical transfer**: Cases who have been referred for medical investigation to other health facility

7.4 Numbering system

A registration number is given to each child and PLW woman when first enrolled in the outpatient care. This number should follow the Health Monitoring Information System (HMIS).

- ALL records concerning the child/PLW should follow the same numbering system. This includes monitoring cards and transfer slips.
- Returning defaulters who return to the program within a month retain the same number as they are still suffering from the same episode of malnutrition. Their treatment continues on the same monitoring card.
- Re-enrollments (meet enrollment criteria after being discharged recovered) are given a new number and new card. They are suffering from another episode of malnutrition and therefore require full treatment again.

7.5 Monitoring and tracking individual child/woman

Different staff and in some cases different agencies may manage different program components. It is essential that there is contact between the staff managing the various components (facility and community based management/ outpatient care) to ensure children/women are enrolled and transferred with adequate information.

Transfers to inpatient care: When a child with SAM with complications requires transfer to inpatient care, the date of transfer is recorded on the CMC for SAM. The CMC remains at the outpatient site (or with the CHW managing the program) and is filed under the section **marked "*Transfers awaiting return*.**" The child is on transfer and is not an exit since they will return to the outpatient care once stabilized. The transfer slip to inpatient care should note the child's number. When the child returns from inpatient care to the outpatient care return transfer slip (the same slip) is used.

If a child is transferred to inpatient care and does not return to Outpatient after one week, the CHW should find out what has happened to the child. If a child dies while in inpatient care or defaults, this information should be recorded on the CMC and filed in the correct section.

Defaulters: The Outpatient card remains in the discharge file under at the Outpatient site under***: Defaulters***. Defaulters should be followed up by CHWs and encouraged to return. If the child/woman does not return, the reason for default should be investigated.

Deaths: When a child dies while in the outpatient care, the CMC card should be filed under ***Deaths***. If a child dies while on transfer to inpatient care, this death must be recorded on the child's. Wherever possible, cause of death should be recorded

Children who are not responding and need follow up: When children are not responding well in the program and follow up visits are needed according to the Action Protocol (for instance the child has lost weight), CHWs should investigate possible reasons. The findings should be recorded on the child's card. This information can be used to make decisions about whether to transfer the child to inpatient care.

7.6 Program monitoring

Basic information is recorded by the service provider at the outpatient site or CHW on a simple **Tally Sheet** **(Annex 19).** Tally sheets are completed as follows:

- Every week for SAM cases
- Every two weeks for MAM cases
- Every two weeks for acutely malnourished PLW

Tally sheets are collected by a supervisor and compiled into a monthly report at the community level and UHC. A standard **Monthly Report Format** **(Annex 20)** is used**.** There is one format for SAM and one format for MAM cases, and acutely malnourished PLW. These formats are available in paper and electronic format.

7.7 Collection of data for monthly reports

Basic routine data should be collected and reported every month as follows:

New Enrollees:

Children/PLW who enter the program to begin nutritional treatment are **new enrollees (or new admissions).** They are divided into the following groups:

- MUAC admissions (wasted children or pregnant and lactating women)
- Children with oedema
- *Transfer IN from inpatient*: Children who return to the outpatient program after inpatient care are noted under the column 'Transfers IN'.
- *Return after default:* Children who return after default within one month:

These groups together =**Total enrollment (total admissions)**

Discharges (Exits)

Children who are no longer in the programme

- Number of discharge recovered
- Number of deaths
- Number of defaults
- Number of non-responder
- *Transfers OUT to inpatient care*: Children who are transferred out to inpatient care are not considered discharges. They will return to the outpatient care once they are stabilized in inpatient care. On the reporting form these cases are noted under the column 'Transfer Out.'

These groups together**=Total discharges/exits**

To find out the total at the end of the month:

Total in the program at the beginning of the month

Plus total admissions

Minus total discharges/exits

=The number in the program at the end of the month

7.8 Determining program outcomes

Program outcomes can be compared to international minimum standards. This will tell us whether the program is performing well according to international standards. Outcomes can be illustrated into a graph. The following outcomes must be calculated:

Recovery rate (or cure rate)
Number of children who completed treatment, met discharge criteria and were discharged
Recovery rate should be more than 75%

Mortality rate
Number of children who have died while in the program
This includes children who died in inpatient care
Mortality rate for outpatient care should be less than 10% for SAM and 3% for MAM

Default rate
Number of children who defaulted while registered in the program
Default rate should be less than 15%

Information may also be collected on average weight gain and average length of stay and the proportion of non-responders and readmissions. Refer to **Performance Indicators and calculating Rates (Annex 21)**

7.9 Using the monthly reports to determine program performance

The monthly report can be used to identify and address any issues in the program. Additional information may be gathered from community health workers and community volunteers and through discussions with caregivers of children and other community members.

High mortality rate*:* High mortality rates may be associated with poor quality of treatment in inpatient care or caregiver refusal to be admitted to inpatient care. It may be associated with disease outbreaks and/or insufficient coverage so that children are not identified early enough for treatment to be effective. Programs that identify, refer and treat children early (before complications) have very low mortality rates.

High default rate: High default rate is often associated with access and the mother/caregiver's time. If default rate is high consider increasing access and/or moving the outpatient site to every two weeks. In some cases community health workers will have to deliver NT to household level. Once children start to gain weight, mothers and caregivers may begin to drop out of the program. It is therefore important to have strong relationships at the community level to ensure that drop out before complete treatment is minimized.

High non-responder rate: Common reasons for non-recovery/responder may include high infectious disease prevalence, sharing of food in the household, poor water and sanitation. It may indicate the need for stronger program linkages with other sectors, better follow up and more effective messages.

Relapse rate: Re-enrollment/Readmission rates are usually low in community based care for SAM (< 2%) unless there is widespread chronic disease such as TB or HIV. If re-enrollment rate is above 2% then it may also indicate children are discharged too early. It also may indicate lack of effective messages on the use of nutritional treatment or nutritional supplements, lack of effective prevention messages and failure to treat common childhood illnesses.

7.10 Determining coverage

- Coverage is one of the most important indicators of how well a programme is meeting needs. Coverage is expressed as a percentage. If there are 100 children with acute malnutrition living in a program area and 70 of them are in the program then coverage is 70%.
- Coverage is usually determined through conducting a coverage survey. Coverage surveys should ideally be conducted every 6 months. Coverage surveys can reveal a lot of information about why children/women do not attend the program, why some may be excluded and possible barriers to access. However coverage surveys are costly and require specially trained staff. Simple mechanisms to gauge coverage levels can be used in on a continual basis to monitor the program. A new technique for measuring coverage using ongoing program data and additional inquiry and information has been developed. This is called the **Semi- Quantitative Evaluation of Access and Coverage (SQUEAC).** SQUEAC uses quantitative and qualitative methods to give an accurate estimate of coverage.

- In the absence of more formal coverage techniques, simple mapping can also be done. This will help determine where most of the enrollments are coming from and can help determine if more sites should be opened. This will help program managers better understand possible issues in the program such as high default or low coverage.

7.11 Summarizing findings

The outcome data and analysis can be used to complete a simple **Monthly Narrative Report Format** **(Annex 22).**

The monthly report should be reviewed by the health facility team during monthly meetings. In many cases the supervisor or supervisory team from the district health office will be responsible for reviewing program performance at health facility level.

7.12 Supervision

Responsibility for supervision of various components of the CMAM program or the program as a whole should be established during the planning stages. Supervisors are responsible for ensuring the program is running smoothly and overall program quality. The Supervisor should be able to pick up on errors and correct them as well as address any issues that arise in the program.

- Supervision visits may be conducted by the Upazila/ District Health Management Team or equivalent and may be part of an integrated supervisory visit. A general **Supervision Checklist** can be used (**Annex 23).**
- Supervisors should be responsible for ensuring that cards are filled in and filed correctly. Supervisory visits should include review of the monitoring cards particularly the cards of children who have died, defaulted and those not responding to treatment. The supervisor should ensure that enrollment and discharges are made according to the protocol and that treatment protocols are performed correctly. The supervisor should check that the action protocol is properly followed so that cases are transferred and followed up where appropriate.

- Supervisors should work closely with the service providers at the outpatient site, CHWs and community volunteers to ensure that any issues in implementation or in the management of individual child can be identified and followed up.
- Supervisors should hold monthly meetings with service providers, CHWs and volunteers to discuss any program issues and answer any questions that may arise. These meetings should cover the issues below.
  - Any issues in program management. This should include a review of the caseload number and if this is manageable for the number of staff available. Any expected increases/decreases in the caseload because of season or sudden population influx should be discussed.
  - Factors that may affect attendance.
  - Staff issues.
  - Supply issues and planning (including NT, NS, drugs and equipment).
  - A review of deaths in outpatient and inpatient care
  - A review of defaulters, children failing to gain weight.
  - A review of transfers to ensure effective tracking.
  - Issues in the community that may affect access.
  - Review of tally sheets and monthly reports.
- Supervisors are responsible for supply management including ensuring a reliable pipeline of Nutritional Treatment, Nutritional Supplement and drugs. Pipeline breaks can result in high default rates. **Supply Requirements for outpatient program for SAM** can be found in **Annex 24**. Supervisors can fill out a **Supply Requisition Form** as shown in **Annex 25**.

ANNEX

Annex 1: Measuring malnutrition

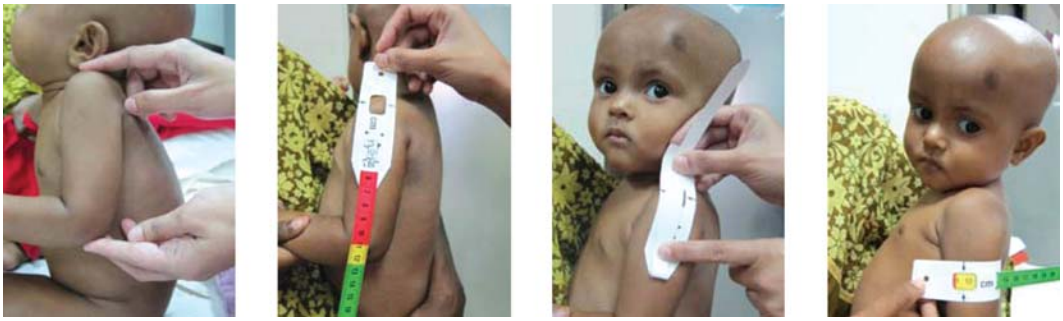
Anthropometric Measurement Techniques:

Measuring Mid-Upper Arm Circumference (MUAC)

1. Keep your work at eye level. Sit down when possible. Very young children can be held by their mother during this procedure. Ask the mother to remove clothing that may cover the child's left arm.

2. Calculate the midpoint of the child's left upper arm by first locating the tip of the child's shoulder with your finger tips. Bend the child's elbow to make a right angle. Place the tape at zero, which is indicated by two arrows, on the tip of the shoulder and pull the tape straight down past the tip of the elbow. Read the number at the tip of the elbow to the nearest centimeter. Divide this number by two to estimate the midpoint. As an alternative, bend the tape up to the middle length to estimate the midpoint. Either you or an assistant can mark the midpoint with a pen on the arm.

3. Straighten the child's arm and wrap the tape around the arm at midpoint. Make sure the numbers are right side up. Make sure the tape is flat around the skin.



Steps of measuring MUAC

4. Make sure the tape is not too tight or too loose.

5. When the tape is in the correct position on the arm with the correct tension, read and call out the measurement to the nearest 0.1cm.

6. Remove the tape from the child's arm.

7. Immediately record the measurement on the CMC.

Weighing the child

To weigh the child:

1. Remove the child's clothes, but keep the child warm with a blanket or cloth while carrying to the scale.

2. Put a cloth in the scale pan to prevent chilling the child.

3. Adjust the scale to zero with the cloth in the pan. (If using a scale with a sling or pants, adjust the scale to zero with that in place.)

4. Place the naked child gently in the pan (or in the sling or pants).

5. Wait for the child to settle and the weight to stabilize.

6. Measurement of weight to the nearest 0.01 kg (10 g) or as precisely as possible.

7. Record immediately on the CMC.

8. Wrap the child immediately to re-warm.

Standardize the weighing scale

Standardize scales daily or whenever they are moved:

1. Set the scale to zero.

2. Weigh three objects of known weight (e.g., 5, 10, and 15 kg) and record the measured weights. (A container filled with stones and sealed may be used if the weight is accurately known.)

3. Repeat the weighing of these objects and record the weights again.

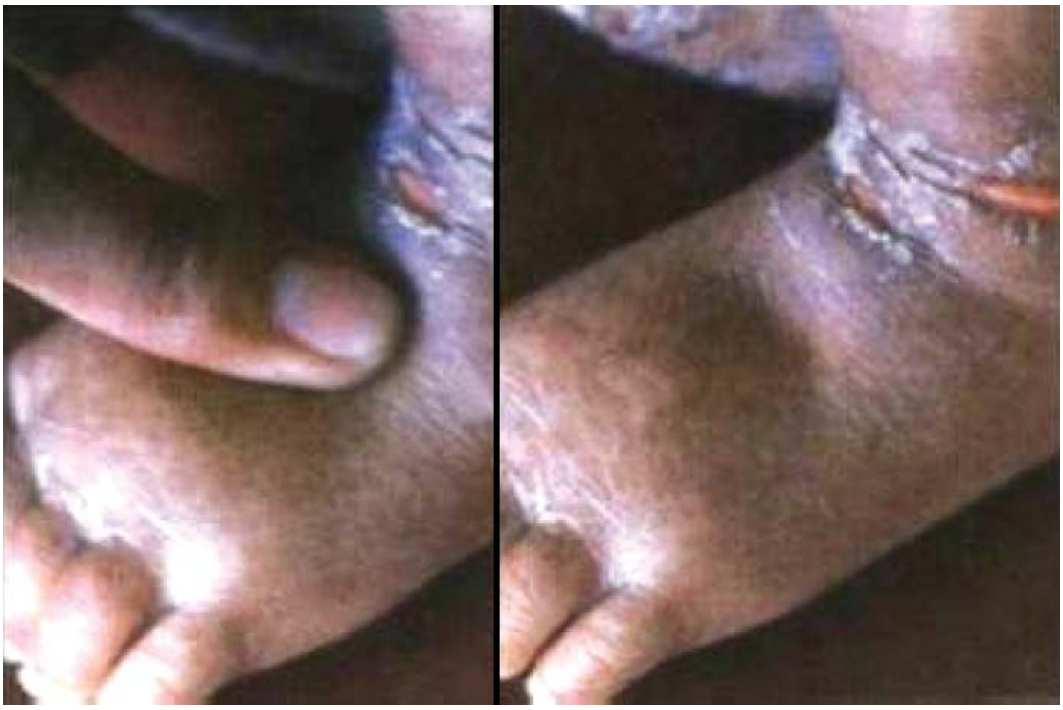
4. If there is a difference of 0.01 kg (10g) or more between duplicate weighing, or if a measured weight differs by 0.01 kg or more from the known standard, check the scales and adjust or replace them if necessary.

Assessing presence of oedema

In order to determine the presence of oedema, normal thumb pressure is applied to the both feet for three seconds. If a shallow print persists on the both feet, then the child presents oedema. Children with bilateral pitting oedema (on both feet) are recorded as having nutritional oedema.

Sometimes oedema may be severe. Generalized oedema includes the lower legs, and hands or lower arms and occasionally includes the face.

You must test for oedema with thumb pressure you can't tell by just looking



Annex 2: Referral Slips from CHW to Outpatient Site

Referral slip for children: **Refer to Outpatient Site**

CHILDS NAME_____ AGE (months)_____

SEX (circle) **F** **M** Name of village:_____

MOTHER/CAREGIVER NAME_____

Union: _____ Upazila: _____

MUAC <11.5cm (RED) ☐ MUAC <12.5cm (YELLOW) ☐ INFANT < 6 months ☐

OEDEMA (circle) **Yes** **No**

Referred by:_____

Referred Date:_____

Referral slip for PLW: **Refer to Outpatient Site**

MOTHER'S NAME_____ AGE (Years)_____

HUSBAND'S NAME_____

Name of village:_____ Union _____

Upazila:_____ District: _____

MUAC <21cm ☐

Referred by:_____

Referred Date:_____

Annex 3: CHW Home Visit Form and Checklist

Home Visit Form

Reason for home visit (circle): Absence Default Follow up

CHILDS NAME_____ AGE (months)_____

Child's Registration number_____

Outpatient site_____

CHILD/WOMAN'S NAME_____

CHILD/WOMEN AGE (months/years)_____

CHILD SEX (circle) **F** **M** Name of village_____

Union _____ Upazila _____

District _____

CAREGIVER'S/HUSBAND'S NAME_____

Date of visit_____

Findings: Defaulted ☐ Died ☐ Other (specify)_____

Community Health Worker name:_____

CHECKLIST FOR HOME VISIT

Community Health Worker's Name: _____

Date of Visit: _____

Child's Name: _____

Note: If problems are identified, please list any health education or advice given in the space below. Return this information to outpatient care site.

Feeding		
Is the ration of the special food present in the home?	Yes	No
If not, where is the ration?		
Is the available special food enough to last until the next outpatient care session?	Yes	No
Is the special food being shared or eaten only by the sick child?	Shared	Sick child only
Yesterday, did the sick child eat food other than special food?	Yes	No
If yes, what type of food?		
Yesterday, how often did the child receive breast milk? (for children < 2 yrs)		
Yesterday, how many times did the sick child receive special food?		
Did someone help/encourage the sick child to eat?	Yes	No
What does the caregiver do if the sick child does not want to eat?		
Is clean water available?	Yes	No
Is clean water given to the child when eating special food?	Yes	No
Caring		
Are both parents alive and healthy?		
Who cares for the sick child during the day?		
Is the sick child clean?	Yes	No
Health		
What is the household's main source of water?		
Is there soap for washing in the house?	Yes	No
Do the caregiver and child wash hands and face before the child is fed?	Yes	No
Is food covered and free from flies?	Yes	No
What action does the caregiver take when the child has diarrhoea?		
Food Security		
Does the household currently have food available?	Yes	No
What is the most important source of income for the household?		
COMMENTS:		

Annex 4: Classification of Severe Acute Malnutrition (SAM)

Severe acute malnutrition (SAM)
MUAC <11.5 cm
And/OR bilateral pedal oedema

SAM **WITH** complications

- **Bilateral pedal oedema (any grade)**

OR

- **Marasmic-Kwashiorkor**

MUAC <11.5cm with any grade of oedema

OR

- **MUAC <11.5cm WITH any of the following complications**
  - No appetite/unable to eat
  - Persistent vomiting (> 3 times per hour)
  - Fever >39°c or 102.2° F (axillary temperature)
  - Hypothermia < 35°c or 95°F(axillary temperature)
  - Rapid breathing as per IMCI guidelines for age:
    ≥ 60/min for children <2 months
    ≥ 50/min for children 2-12 months
    ≥ 40/min for children 12-59 months
  - Dehydration based primarily on a recent history of diarrhoea, vomiting, fever or sweating, not passing urine for last 12 hours and on recent appearance of clinical signs of dehydration as reported by the caregiver
  - Severely pale (severe palmer pallor) with or without difficult breathing
  - Very weak, apathetic, unconscious, fitting/ convulsions
  - Conditions requiring IV infusion or NG tube feeding
  - Severe malnourished Infants <6 months who are visibly wasted and or unable to breastfeed

INPATIENT CARE

- Follow national guideline for the management of severe malnutrition at inpatient facility
- Discharge to outpatient program once stabilized

SAM **WITHOUT** complications

- MUAC <11.5 cm

AND ALL OF FOLLOWING:

- Presence of appetite
- Without medical problems or any complications

OUTPATIENT CARE

- Follow guideline for community based management of SAM

Annex 5: Child Monitoring Card (CMC) for SAM

Child Monitoring Card for Children with SAM

Registration No __/__/__/__/__/__/	**Child's name:** **Mother/Caregiver name:**
Outpatient site name: **Health worker/ CHW name:**	**DOB:** **Age (Months):** **Sex:** ☐ **Male** ☐ **Female**
Ward:	**Union:**
Upazila:	**District:**

Return after default: Yes ☐ **No** ☐ **Relapse: Yes** ☐ **No** ☐

General information:

Continued Breastfeeding: **Yes** ☐ **No** ☐	**Complementary Feeding:** ● **Initiation time (age of baby in month):** ● **Type of food:** ● **Daily how many times:**
Received all EPI vaccinations: **Yes** ☐ **No** ☐	**Received Measelse vaccination:** **Yes** ☐ **No** ☐ **NA** ☐
Received last Vitamin A capsule: **Date:** **NA** ☐	

Enrollment medication:

Medical treatment given today	**Antibiotic**
	Vitamin A capsule
Medical treatment on follow up visits	**Albendazole (date)**
	Other (Date)

Discharge information:

Discharge Date: ____/____/ 20	
☐ **Recovered** ☐ **Defaulter** ☐ **Died while in program** ☐ **Non-responder**	**Target weight is _____ kg** **(+15% of admission weight/oedema free weight)**

Indicators	Weeks											
	Enroll	2	3	4	5	6	7	8	9	10	11	12
Date of session												
Attendence (Yes/No)												
General danger sign/ complications (Yes/No)												
Weight (kg)												
MUAC in cm												
Odema												
Temperature (^{O} F)												
Diarrhea (Yes/No)												
Diarrhea with Dehydration (Yes/No)												
Respiratory rate (min)												
Pneumonia (Yes/No/Severe)												
Appetite (Yes/No)												
Diagnosis: SAM with complications (Yes/No)												
Nutritional Tratment given # packets												
Inpatient transfer (date)												
Information on treatment received in inpatient care												
Return from inpatient care (date)												
Home visit required (Yes /No)												
Comments:												
Notes on home visits prevention messages given and practiced												

Annex 6: Target Weight gain (15%) for Discharge of SAM

Admission weight is oedema free weight. If child has oedema calculate the target weight after oedema has resolved

Table: Example of a look-up table for calculating percentage change (15% in this table) in weight (Kg)

Weight at		Weight at		Weight at		Weight at	
Admission	Discharge	Admission	Discharge	Admission	Discharge	Admission	Discharge
4.0	4.6	7.0	8.1	10.0	11.5	13.0	15.0
4.1	4.7	7.1	8.2	10.1	11.6	13.1	15.1
4.2	4.8	7.2	8.3	10.2	11.7	13.2	15.2
4.3	4.9	7.3	8.4	10.3	11.8	13.3	15.3
4.4	5.1	7.4	8.5	10.4	12.0	13.4	15.4
4.5	5.2	7.5	8.6	10.5	12.1	13.5	15.5
4.6	5.3	7.6	8.7	10.6	12.2	13.6	15.6
4.7	5.4	7.7	8.9	10.7	12.3	13.7	15.8
4.8	5.5	7.8	9.0	10.8	12.4	13.8	15.9
4.9	5.6	7.9	9.1	10.9	12.5	13.9	16.0
5.0	5.8	8.0	9.2	11.0	12.7	14.0	16.1
5.1	5.9	8.1	9.3	11.1	12.8	14.1	16.2
5.2	6.0	8.2	9.4	11.2	12.9	14.2	16.3
5.3	6.1	8.3	9.5	11.3	13.0	14.3	16.4
5.4	6.2	8.4	9.7	11.4	13.1	14.4	16.6
5.5	6.3	8.5	9.8	11.5	13.2	14.5	16.7
5.6	6.4	8.6	9.9	11.6	13.3	14.6	16.8
5.7	6.6	8.7	10.0	11.7	13.5	14.7	16.9
5.8	6.7	8.8	10.1	11.8	13.6	14.8	17.0
5.9	6.8	8.9	10.2	11.9	13.7	14.9	17.1
6.0	6.9	9.0	10.4	12.0	13.8	15.0	17.3
6.1	7.0	9.1	10.5	12.1	13.9	15.1	17.4
6.2	7.1	9.2	10.6	12.2	14.0	15.2	17.5
6.3	7.2	9.3	10.7	12.3	14.1	15.3	17.6
6.4	7.4	9.4	10.8	12.4	14.3	15.4	17.7
6.5	7.5	9.5	10.9	12.5	14.4	15.5	17.8
6.6	7.6	9.6	11.0	12.6	14.5	15.6	17.9
6.7	7.7	9.7	11.2	12.7	14.6	15.7	18.1
6.8	7.8	9.8	11.3	12.8	14.7	15.8	18.2
6.9	7.9	9.9	11.4	12.9	14.8	15.9	18.3

Annex 7: Action Protocol to determine SAM with complications

To determine the need for transfer to inpatient care and home visits (6-59 months children)

Sign	Transfer to Inpatient Care	Home visit
Oedema	Any grade of oedema Marasmic-Kwashiokor (MUAC <11.5cm and oedema)	
Appetite	Poor appetite or unable to eat	Any child with mild illness or problems with treatment
Vomiting	Persistent vomiting (>3 times per hour)	
Temperature	Fever (>39° C or 102.2° F axillary)	
	Hypothermia (<35° C or 95° F axillary)	
Respiratory rate	Rapid breathing according to IMCI guidelines for age: ● ≥ 60/minute for children <2 months ● ≥ 50/minute for children 2 -12 months ● ≥ 40/minute for children 12-59 months	
Anaemia	Severely pale (severe palmer pallor) with or without difficult breathing	
Infection	Extensive infection requiring parenteral treatment	
Alertness	Very week, apathetic, unconscious, convulsions	
Hydration status and dehydrating diarrhoea	Dehydration based primarily on a recent history of diarrhea, vomiting, fever or sweating	
	Not passing urine for last 12 hours and/or recent appearance of clinical signs of dehydration as reported by the caregiver	
Weight changes	- Weight loss for 3 consecutive weeks - Static weight after 5 weeks	Weight static or loss in any follow up visit
Return from inpatient care/refuses inpatient care		Return from inpatient care
		Mother/caregiver refuses inpatient care
Not recovering/ non-responder	If not recovered after 3 months refer for medical evaluation	
Absence		Absent for one or more weeks
Default		Absent for three consecutive weeks

Annex 8: Transfer slip from outpatient to inpatient care and from inpatient to outpatient care

Transfer slip from Outpatient Care to Inpatient Care

Name of child _____ Age: _____ Sex: M ☐ F ☐

Mother/caretaker's name: _____

Village: _____ Ward _____ Union_____

Upazila: _____ District: _____

Date of admission to Outpatient Program:_____ Registration # _____

Admission information:

Weight_____ MUAC:_____ Oedema (put tick mark): Yes ☐ No ☐

Transfer from: _____ (Name of health facility or HW location)

Transfer to: _____ (Name of UHC)

Date of transfer:_____

Reason for transfer to inpatient care (put tick mark):

Poor or no appetite: ☐ Medical complications: ☐ Oedema: ☐ No weight gain: ☐

Static weight: ☐ Infant < 6 months: ☐ Other, specift: _____

Other reason:_____

Medical treatment given:

Amoxicillin/antibiotic ☐ Vitamin A capsule ☐ Albendazole ☐

Other Medical treatment given:_____

Nutritional Treatment (NT) received (if any) _____

Transferred by (name and signature of service provider)_____

Return slip from Inpatient Care to Outpatient Program

Date of return to outpatient program:_____

Treatment given in inpatient care:

_____

_____

Comments:_____

Return transfer by (name and signature of health worker/doctor_____

Annex 9: Key messages for caregivers of children with SAM

These messages should be given to caregivers of children with SAM on enrollment in the outpatient program.

- Nutritional Treatment (NT) is specially prepared for severely malnourished children (6-59 months) only. It should not be shared with siblings or other children.
- Your child should have X (*note the amount of NT according to weight of child*) amount of NT each day
- Breastfeed your child before giving NT. Your child should continue to breastfeed regularly.
- Your child may need to be encouraged to eat. Give frequent feeds of small amounts of NT up to 6-8 times a day.
- Always offer plenty of breastmilk or clean water to drink while eating NT. NT can make children thirsty and your child will need to drink more than normal.
- After one week, your child can receive additional nutritious household foods **AFTER** breastmilk and NT if they are still hungry after eating the prescribed daily amount of NT.
- Use soap to wash your child's hands before eating. Caregivers should wash their own hands before feeding the child
- If your child has diarrhoea, never stop feeding. Give extra food, ORS, Zinc and continue breastfeeding.
- Medicine is important for the recovery of your child. Give the child all the medicine provided. Store medicine out of reach of children.
- If your child has any medical complications, take the child to the nearest health facility.

Storage of NT in the home:

- Keep NT in a dry place above the floor and out of reach of children. NT may be kept in a sealed container, on a high shelf, clean cupboard, or basket hung above the floor.
- Opened packets of NT should be kept covered and dry.

NOTE

These messages are basic essential messages that must be given on enrollment to ensure compliance with nutritional and medical treatment for SAM. Other prevention messages including IYCF should be given during follow up visits and in the community.

Annex 10: Routine medical protocol for children (6-59 months) with SAM without complications

Drug/Vaccine/ Micronutrient	When	Age/Weight	Prescription	Dose
VITAMIN A	On enrollment (if not taken within last 1 month)	6 months to < 1 year	100 000 IU	Single dose on admission
		≥ 1 year	200 000 IU	
AMOXYCILLIN	On enrollment	6-12 months	125mg	3 times/day for 5 days
		12-24 months	187.5mg	
		24-59 months	250mg	
***ALBENDAZOLE**	Second visit (if not taken within last 3 months)	< 12 months	**DO NOT GIVE**	
		12-23 months	200mg	Single dose
		≥ 2 years	400 mg	
MEASLES VACCINATION	Fourth visit (if not already vaccinated)	>9 months	Standard	Single dose

*** Should be taken in empty stomach**

Annex 11: Amount of Nutritional Treatment (NT) by weight

Nutritional Treatment (NT) is prepackaged.
The chart below is for standard packaging of NT
One packet = 92g/500 KCal*

Weight of child kg	Packets/Day	Packets/Week
3 - 3.4**	1 ¼	9
3.5 - 3.9	1 ½	11
4 - 5.4	2	14
5.5 – 6.9	2 ½	18
7.0 – 8.4	3	21
8.5 – 9.4	3 ½	25
9.5 – 10.4	4	28
10.5 – 11.9	4 ½	32
≥ 12	5	35

*NT may be packaged in a different quantity. In this case, a simple chart like the one above can be developed according to the type of packing and quantity.
**Children less than 4 kg aged more than 6 months can be given NT if they have no complications and are able to swallow NT without any problems.

Annex 12: Recommended IYCF practices for CMAM

Breastfeeding practices and discussion points for counseling

Recommended Breastfeeding Practice	Possible points of Discussions for Counseling
Continue breastfeeding for 2 years of age or longer	• Breast milk contributes a significant proportion of energy and nutrients during the complementary feeding period and helps protect babies from illness. • In the first year breastfeed before giving foods to maintain breast milk supply. • If infant is sick mother should continue breast feeding more often. It helps to fight against common sickness.
Let infant finish one breast and come off by him/ herself before switching to the other breast	• Switching back and forth from one breast to the other prevents the infant from getting the nutritious 'hind milk' • The 'fore milk' has more water content and quenches infant's thirst; the 'hind milk' has more nutrients for growth.
Breastfeed on demand (or cue) every time the baby wants to breastfeed	• Crying is a late sign of hunger. • Early signs that baby wants to breastfeed: - Opening mouth and turning head from side to side - Putting tongue in and out - Sucking on fingers or fists.
Mother needs to eat and drink to satisfy hunger and thirst	• No one special food or diet is required to provide adequate quantity or quality of breast milk. • Breast milk production is not affected by maternal diet • No foods are forbidden. • Mothers should be encouraged to eat supplemental foods from family food. • If mother is suffering from cough, cold, diarrhea still she can continue breast feeding. • Before breas tfeeding mother should drink plenty of water.
Avoid feeding bottles	• Foods or liquids should be given by a spoon or cup to reduce nipple confusion and the possible introduction of contaminants.

Recommended complementary feeding practices

Age	Frequency (per day)	Amount of at each serving* In addition to breast milk)	Texture (thickness/ consistency)	Variety
6 months (181 days) to 8 months	2 times Food and 1 to 2 times nutritious snacks	½ bowl (250 ml)	Thick porridge/pap Mashed/ pureed family foods	Breastfeeding + Staples rice, suji, halwa, khichuri, ruti regumes rentils, beans, peas vegetables/fruits green leafy vegetables, papaya, mango, banana, jackfruit animal foods reat, fish, eggs, cheese, milk
9-11 months	3 times foods and 1 to 2 times nutritious snacks	½ bowl (250 ml)	Finely chopped family foods Finger foods Sliced foods	
12-24 months	3 times foods and 1 to 2 times nutritious snacks	1 bowl (250 ml)	Family foods Sliced foods	
Note: If baby is not breastfed	Add 1-2 extra times food and snacks			Add 1-2 cups of milk per day
Responsive Active feeding	Be patient and encourage your baby to eat actively			
Hygiene	• Feed your baby using a clean cup and spoon, **never a bottle** as this is difficult to clean and may cause your baby to get diarrhoea. • Wash your hands with soap and water before preparing food, before eating and before feeding young children.			

* Adapt the chart to use a suitable local cup/bowl to show the amount.

The amounts assume an energy density of 0.8 - 1 Kcal/g.

Use iodized salt in preparing family foods/complementary foods.

Annex 13: Child Monitoring Card (CMC) for MAM

Child Monitoring Card for Children with MAM

Registration No **__/__/__/__/__/__/**	**Child's name:** **Mother/Caregiver name:**
Outpatient site name: **CHW name:**	**DOB:** **Age (Months):** **Sex:** ☐ **Male** ☐ **Female**
Ward:	**Union:**
Upazila:	**District:**

Return after default: Yes ☐ **No** ☐ **Relapse: Yes** ☐ **No** ☐

General information:

Continued Breastfeeding: **Yes** ☐ **No** ☐	**Complementary Feeding:** ● **Initiation time (age of baby in month):** ● **Type of food:** ● **Daily how many times:**
Received all EPI vaccinations: **Yes** ☐ **No** ☐	**Received Measelse vaccination: Yes** ☐ **No** ☐
Received last Vitamin A capsule:	**Date:**

Medication given on enrollment:

Medication	**Date:**
Albendazole	
Vitamin A	

Discharge information:

Discharge Date: ____/____/ 20	
☐ **Recovered** ☐ **Defaulter** ☐ **Died while in program** ☐ **Non-responder**	**Target weight is _____ kg (+15% of admission weight/oedema free weight)**

Indicators	**Weeks**											
Session (every two weeks)	**Enroll**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Date of session												
Attendence (Yes/No)												
General danger sign Yes/No)												
Weight (kg)												
MUAC in cm												
Diarrhea (Yes/No)												
Diarrhea with Dehydration (Yes/No)												
Nutritional Supplement (NS) given # packets or Kg amount												
Health facility referral (date)												
Home visit (Yes /No)												
Comments:												
Notes on home visits and prevention messages given and practiced												

Annex 14: Action Protocol for MAM

Sign	Transfer to outpatient Care for SAM	Transfer to Medical Facility (Inpatient Care)	Home visit
MUAC	< 11.5cm		
Oedema		Transfer to nearest health facility	
Any danger sign of medical condition		Transfer to nearest health facility	
Weight changes		No weight gain for 2 visits or static weight for 3 visits	Weight static or weight loss in any follow up visit
Not recovered after 4 months Absence Default		Transfer to nearest health facility to investigate possible underlying cause	
Absence			Absent for one or more visits
Default			Absent for two consecutive visits

Annex 15: Routine medical protocol for MAM

<table>
<tr><th>Drug/Vaccine/ Micronutrient</th><th>When</th><th>Age/Weight</th><th>Prescription</th><th>Dose</th></tr>
<tr><td rowspan="2">VITAMIN A</td><td rowspan="2">On enrollment (not taken in last 1 month)</td><td>6 months to < 1 year</td><td>100 000 IU</td><td rowspan="2">Single dose on admission</td></tr>
<tr><td>≥ 1 year</td><td>200 000 IU</td></tr>
<tr><td rowspan="3">*ALBENDAZOLE</td><td rowspan="3">On enrollment (not taken in last 3 months)</td><td>< 12 months</td><td colspan="2">DO NOT GIVE</td></tr>
<tr><td>12-23 months</td><td>200mg</td><td rowspan="2">Single dose</td></tr>
<tr><td>≥ 2 years</td><td>400 mg</td></tr>
<tr><td>MEASLES VACCINATION</td><td>On enrollment</td><td>After completion of 9 months</td><td>Standard</td><td>Single dose</td></tr>
</table>

Note: Children completing for SAM transferred to the outpatient care for MAM should NOT be given routine medical treatment again.

*** Should be taken in empty stomach**

Annex 16: Energy and nutrients dense local food recipes

Local food Recipes

Local foods such as Khichuri and Halwa can be used to manage MAM. Local recipes must be fortified with micronutrients including 15 essential micronutrients in order to ensure catch up growth.

Khichuri

Ingredient	Amount for 1 kg	Equivalent
Rice	120 g	
Lentils (mashur dal)	60 g	
Oil (soya)	70 ml	
Potato	100 g	
Pumpkin	100 g	
Leafy vegetable (shak)	80 g	
Onion (2 medium size)	50 g	
Spices (ginger, garlic, turmeric, coriander)	50 g	
Water	1000 ml	
Total energy/kg	1,442 kcal	
Direction sfor use		
Put the rice, lentils, oil, onion, spices and water in a pot and boil. Cut the potatoes and pumpkin into pieces and add to the pot after 20 minutes. Five minutes before the rice is cooked, add the cleaned and chopped leafy vegetable. The pot should be kept covered throughout cooking. Khichuri takes about 50 minutes to cook and can be kept at room temperature for 6-8 hours.		

Halwa

Ingredient	Amount for 1 kg	Equivalent
Wheat flour (atta)	200 g	
Lentils (mashur dal)	100 g	
Oil (soya)	100 ml	
Molasses (brown sugar or gur)	125 g	
Water (to make a thick paste)	600 ml	
Total energy/kg	2,404 kcal	
Direction sfor use		
Soak the lentils in water for 30 minutes and then mash. Roast the wheat flour on a hot pan for a few minutes, and then mix with the mashed lentils, oil and water. Melt the molasses and add to the mixture to make a thick paste. Halwa takes about 15 minutes to cook and can be kept at room temperature for 6-8 hours.		

Annex 17. Monitoring card for Pregnant and Lactating Women

Monitoring Card for PLW with MAM

Registration No __/__/__/__/__/__/	**Pregnant/Lactating woman's name:** **Husband's name:**
Outpatient site name: **CHW name:**	**Age (years):**
Ward:	**Union:**
Upazila:	**District:**

General information:

Pregnancy Period (months):	**Pregnancy order:**
Received TT vaccinations: **Yes ☐ No ☐**	**L.M.P. :** **E.D.D :**
Date of Delivery:	**Received last Vit- A: Date:** for LW

Lactating Women	**Date:**
Age of infant at enrollment	
Exclusive breastfeeding Yes ☐ No ☐	

Medication given:

	Date:
Folic acid	
Iron/folic acid	
Calcium	
Albendazole	
Vitamin A	

Discharge information:

Discharge Date: ____/____/ 20	
☐ Recovered **☐ Defaulter** **☐ Died while in program**	

Indicators	**Weeks**											
Session (every two weeks)	**Enroll**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Date of session												
Attendence (Yes/No)												
Weight (kg)												
MUAC in cm												
Nutritional Supplement (NS) # packets or Kg amount												
Hospital referral (date)												
Home visit (Yes /No)												
Comments:												
Notes on home visits and prevention messages given and practiced												

Annex 18: Routine medical protocol for acutely malnourished Pregnant Lactating Women (PLW)

Pregnant Women

Drug/Micronutrient	When	Prescription	Dose
FOLIC ACID	On enrollment	400ug Folic Acid	Single dose daily up to completion of first trimester
IRON/ FOLIC ACID	From 2nd trimester of pregnancy	60mg Iron plus 400ug Folic Acid	Single dose daily up to delivery
CALCIUM	From 2nd trimester of pregnancy	500mg	Single dose daily up to delivery
ALBENDAZOLE	From 20 weeks to 28 weeks (5 to 7 months) of pregnancy	400 mg	Single dose

Lactating Mothers

Drug/Micronutrient	When	Prescription	Dose
VITAMIN A	Within 6 weeks of delivery	200 000 IU	Single dose
ALBENDAZOLE	On enrollment	400 mg	Single dose
CALCIUM	On enrollment	500mg	Single dose daily until child age is 6 months
IRON/FOLIC ACID	On enrollment	60mg Iron plus 400ug Folic Acid	Single dose daily until child age is 6 months

Annex 19: Tally sheets for weekly program monitoring and reporting

WEEKLY TALLY SHEET REPORT FOR OUTPATIENT CARE OF CHILDREN WITH SAM

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC <11.5cm						
	Oedema						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	Non-responder						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Transfers OUT to inpatient care at UHC							
Transfers IN from inpatient care							
Return after default							
Enrolled again after relapse							
New Enrollment	Boy						
	Girl						
SUPPLY MONITORING							
Amount of NT in store at BEGINNING of the week (cartons)							
Amount of NT in store at the END of the week (cartons)							

WEEKLY TALLY SHEET REPORT FOR OUTPATIENT CARE OF CHILDREN WITH MAM

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC <12.5cm						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	Non-responder						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Return after default							
Enrolled again after relapse							
New Enrollment	Boy						
	Girl						

WEEKLY TALLY SHEET REPORT FOR OUTPATEINT CARE OF ACUTELY MALNOURISHED PLW

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC < 21cm						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Return after default							

Annex 20(a): MONTHLY REPORT - OUTPATIENT CARE FOR SAM

Name of Outpatient site/ health facility			
Union/Upazila/District		Month/ Year	
Report prepared by			

Age group	Total in Community outreach site beginning of the month (A)	ENROLMENT (B)					TOTAL ENROLLMENT (B)	Exits					Transfer out	TOTAL EXITS (C)	TOTAL AT END OF MONTH (D)
		New Enrollees			Transfer In			RECOVERED	DEATH	DEFAULTER	NON-RECOVERED	MEDICAL TRANSFER	Transfer TO inpatient		
		MUAC < 11.5cm	OEDEMA	RELAPSE	Return after default	Transfer FROM Inpatient									
6-59 months															
TOTAL															
TOTAL IN PROGRAM AT END OF MONTH (D) = A + B - C															

Annex 20(b): MONTHLY REPORT - OUTAPATIENT CARE FOR MAM AND PLW

Name of Outpatient site/ health facility			
Union/Upazila/District		Month/ Year	
Report prepared by			

Target group	TOTAL IN PROGRAM AT BEGINNING OF MONTH (A)	ENROLMENT (B)				TOTAL ADMISSIONS (D)		Exits			TOTAL EXITS	TOTAL AT END OF MONTH
		New Enrollees			Transfer In		RECOVERED	DEATH	DEFAULTER	NON-RECOVERED		
		MUAC < 12.5cm	MUAC < 21cm	RELAPSE	Return after default							
6-59 months												
TOTAL												

TOTAL IN PROGRAM AT END OF MONTH (D) = A + B - C

Annex 21: Performance indicators and calculating rates

Performance indicators for the management of SAM and MAM are shown below:

Outcomes	International recommended minimum standards*
% Recovered	> 75 %
% Defaulted	< 15 %
% Died	< 10 % (SAM)
	< 3% (MAM)
% Coverage	>50% (rural)
	>70% (urban)
Optional indicators	
Length of stay	
Rate of weight gain	>5g/kg/day**

*Based on Sphere Minimum Standards for Humanitarian Response(2011).
**A weight gain of 5g/kg/day is a suggested guideline for community-based programs.

Calculating rates

Recovery rate Total no. of children recovered x 100/Total exits

Defaulter rate Total no. of defaulters x 100/Total exits

Death rate Total no. of deaths x 100/Total exits

Non responder rate Total no. Non responders x 100 /Total exits

Average weight gain and length of stay can be calculated for recovered children in the outpatient program for SAM and MAM. Use a sample of 30 discharged children (without oedema).

Average length of stay (days) calculated as:
Sum of length of stay (days) for each cured child
30 recovered children

Average weight gain (g/kg/day) is calculated as:
Discharge weight in g - minimum weight in g
Minimum weight in kg x number of days between date of minimum weight and discharge day

Average weight gain = sum of weight gains (g/kg/d)
Number of cards (e.g. 30 cards)

Annex 22: Monthly narrative report (completed by supervisors)

1. Performance indicators (according to tally sheets and monthly data report)

% discharged recovered_____

% of deaths_____

% of defaults_____

% non-responders_____

Compare performance indicators to SPHERE minimum standards. Present this as a pie chart.

2. Program outputs

Number of outpatient sites in program**:** _____

Number of CHWs treating SAM_____MAM_____PLW_____

Number CHW's actively identifying and referring cases of SAM/MAM/PLW during outreach activities_____

Total number of admissions SAM_____MAM_____PLW_____

Total number of exits SAM_____MAM_____PLW_____

Number of relapse SAM_____MAM_____PLW_____

Number of children transferred to inpatient care (SAM only)_____

Number of children transferred completing treatment in inpatient care _____

Number of deaths in inpatient care_____

Analysis

Reasons for default:

Actions taken to address absences and default:

Note any program issues (supply issues, barriers to access, staff problems, community issues, security concerns, anticipated increases in caseload)

Note any opening of additional outpatient sites, training planned:

Annex 23: Supervision checklist

Name of supervisor:_____ Designation _____
Outpatient site name _____ Date _____
CHW name if managing program in community_____

	Quality P=poor S=satisfactory G=good	Discussed with staff (Y/N)	Comments/ actions taken
Anthropometry			
Oedema assessed accurately			
MUAC measured accurately			
Outpatient program for SAM			
Enrollment procedures and criteria correct			
Enrollment history recorded accurately on CMC			
Medical examination performed correctly and recorded			
Appetite test conducted correctly			
Routine medicines given correctly			
Classification of SAM and Action Protocol used correctly to determine SAM with and without complications			
Children with complications correctly transferred to inpatient care			
CMC card filled correctly			
NT amount is given correctly			
Key messages are given to caregiver correctly			
Home visits requested correctly according to the Action Protocol			
Children absent or defaulted followed up in community			
Non responders referred for medical investigation			
IYCF prevention messages given and practiced			
Discharge procedure criteria correctly followed			
Outpatient program for MAM			
Enrollment procedures and criteria correct			
Routine medicines available and given correctly			
CMC filled out accurately			
Nutrition Supplement given correctly			
Exit procedure and criteria correct			
Children absent or defaulted followed up in community			
Non responders referred for medical investigation			
IYCF prevention messages given and practiced			
Discharge procedures and criteria correctly followed			
Outpatient program for PLW			
Enrollment procedures and criteria correct			
Routine medicines available and given correctly			
Monitoring card filled out accurately			
Nutrition Supplement given correctly			
Prevention messages/nutrition advice given and practiced			
Discharge procedures and criteria correctly followed			

	Quality P=poor S=satisfactory G=good	Discussed with staff (Y/N)	Comments/ actions taken
Community outreach activities			
Active case finding conducted by CHWs			
Children referred accurately from the community			
Community leaders understand purpose of the program			
Children absent, defaulted are followed up			
IYCF/prevention messages given and practiced			
Monitoring and reporting			
Number system used correctly			
Monitoring cards filed correctly in right section of file			
Transfer slips filled out correctly			
Tally sheets completed correctly and on time			
Supplies, equipment and organization			
Break in supplies (yes/no)			
NT and NS stored correctly			
Necessary equipment and supplies available (yes/no)			
Outpatient site organized well (yes/no)			
Staff capacity sufficient to manage case load (yes/no)			

Annex 24: Supply requirements for outpatient care of SAM

Basic supplies per site	Number
MUAC Tapes	50
Scales	1 (per site)
Soap	5
Plastic cups and jugs	3
Thermometer	2
Watch/ARI timer	2
Scissors	2
Pens	10
Marker pens	2
Notebooks	5
Paper towel	5
Teaspoons or medicine cups	10
Essential medicines (100 children)	**Number/unit**
Vitamin A	2 tins
Albendazole	2 tins
Amoxicillin	100 bottles
Provider pack	1 (for each Service Provider)
Wall chart pack	I
Supplies for monitoring (100 children)	**Number/unit**
Monitoring (per site)	
Child monitoring cards	100
Tally sheets	50
File for cards	2
File for tally sheets	2
Plastic envelopes for cards	100
Transfer slip books (in duplicate copies)	2 books (each with 50 slips)
Community referral slips (in duplicate copies)	2 books (each with 50 forms)
Supervisors (for each supervisor)	**Number**
Supervisor check list	2
Supply request forms (in duplicate copies)	5
File for Tally sheets	1
File for monthly report format	1

Calculating Nutritional Treatment (NT) Requirements by carton and MT

92g Packet/ day	Packets/ week	Packets/ month	Treatment 2 months A	Total caseload B	Total Packets AXB =C	Total Cartons C/150 =D	MT Dx13.8/1000 =E
2	14	56	112				

- Enter estimated caseload (number of children you expect in your program) in Column B
- A X B gives the total number of packets of NT. Enter this number in Column C
- Divide C by 150 (the number of packets of NT in one carton). Enter this number in Column D
- Multiply D by 13.8 (the weight in kg of the carton). Divide this number by 1000 to get the total metric tons (MT) in Column E

Quick estimates

Estimated caseload children with SAM	MT	Average amount/day
100 children with SAM require	1	2 packets/day
1000 children with SAM require	10	2 packets/day

Annex 25: Supply Requisition Form for supervisors and program managers

Date _____

Request made by: _____

Item	In stock	Minimum buffer stock	Amount requested
Nutritional Treatment		2 months supply	
MUAC Tapes		100	
Amoxycillin		50 bottles	
Vitamin A		10 tins	
Albendazole		10 tins	
Child Monitoring Cards		500	
Community referral slip book		10	
Transfer slip book		10	
Monthly report		20	
Plastic envelopes		500	
Provider Packs		5 packs	
Wall charts		5 packs	
Files		5	
Other			
Scale		5	
Soap		100 pieces	
Plastic cups and jugs		10	
Thermometer		5	
Watch/ARI timer		5	
Scissors		5	
Pens		50	
Marker pens		10	
Notebooks		10	
Paper towel		20	
Teaspoons or medicine cups		50	

Other requests

Comments:

Signed by: _____

For use in community based management of SAM, MAM and PLW in Bangladesh

Monitoring and Reporting Tools

Monitoring and Reporting Tools

Effective monitoring and reporting of CMAM programming requires good organization. Individual child card (Child Monitoring Card) must be filled out and filed correctly. When filed efficiently, it is easy to complete weekly Tally Sheets. The Tally Sheets are collected by program supervisors and compiled into a monthly report. This can be done using an electronic data base for one or multiple outpatient sites. One data is compiled in the monthly report; the findings can be measured as performance indicators. These performance indicators determine program performance and quality. These indicators are compared to international minimum standards. A minimum package of indicator chart can be used to track key indicators.

Monitoring at the community level		**Reporting at the district level/NGO**	**Analyzing program performance**
Individual	Reports	Monthly Report format (data)	Calculating rates
Child Monitoring Card, Pregnant and lactating women Monitoring card	Tally Sheet		
		Minimum package of indicators for determining program effectiveness	Monthly narrative report

Monitoring at the community level

Individual children

Organizing CMC: Monitoring cards should be kept at the outpatient site/community outreach site by the service providers. It is essential that cards are stored and filed properly. Cards could be kept in plastic sleeves and stored in files that are organized into sections as shown below.

File 1: Currently in outpatient care	File 2: Exits
Section 1: Cases currently enrolled **Section 2: Absentees**: Cases who have missed one or more visits **Section 3: Transfers awaiting return:** These are SAM cases who have been transferred from the outpatient care to inpatient care	**Section1: Recovered**: Cases who have met the discharge criteria Check in this file for any re-admissions **Section 2: Defaulters**: Cases who have defaulted may return. *If they return within one month the same card is used.* **Section 3: Non-responders**: Cases who do not meet discharge criteria after 3 months in the outpatient care for SAM and 4 months for MAM **Section 4: Deaths**: Cases who have died while in the outpatient care **Section 5: Medical transfer**: Cases who have been referred for medical investigation to other health facility

If the outpatient care includes MAM and PLW as well as SAM cases, there will need to be files for each category.

Number system: A registration number is given to each child and PLW woman when first enrolled in the outpatient care. This number should follow the Health Monitoring Information System (HMIS).

- ALL records concerning the child/PLW should follow the same numbering system. This includes monitoring cards and transfer slips.
- Returning defaulters who return to the program within a month retain the same number as they are still suffering from the same episode of malnutrition. Their treatment continues on the same monitoring card.
- Re-enrollments (meet enrollment criteria after being discharged recovered) are given a new number and new card. They are suffering from another episode of malnutrition and therefore require full treatment again.

Tracking children:

Transfers to inpatient care: When a child with SAM with complications requires transfer to inpatient care, the date of transfer is recorded on the CMC for SAM. The CMC remains at the outpatient site (or with the CHW managing the program) and is filed under the section **marked "*Transfers awaiting return*."** The child is on transfer and is not an exit since they will return to the outpatient care once stabilized. The transfer slip to inpatient care should note the child's number. When the child returns from inpatient care to the outpatient care return transfer slip (the same slip) is used.

If a child is transferred to inpatient care and does not return to Outpatient after one week, the CHW should find out what has happened to the child. If a child dies while in inpatient care or defaults, this information should be recorded on the CMC and filed in the correct section.

Defaulters: The Outpatient card remains in the discharge file under at the Outpatient site under***: Defaulters***. Defaulters should be followed up by CHWs and encouraged to return. If the child/woman does not return, the reason for default should be investigated.

Deaths: When a child dies while in the outpatient care, the CMC card should be filed under ***Deaths***. If a child dies while on transfer to inpatient care, this death must be recorded on the child's. Wherever possible, cause of death should be recorded

Children who are not responding and need follow up: When children are not responding well in the program and follow up visits are needed according to the Action Protocol (for instance the child has lost weight), CHWs should investigate possible reasons. The findings should be recorded on the child's card. This information can be used to make decisions about whether to transfer the child to inpatient care.

Reporting

Weekly

Basic information is recorded by the service provider at the outpatient site or CHW on a **Tally Sheet.** The Tally Sheet is completed:

- Every week for SAM cases
- Every two weeks for MAM cases
- Every two weeks for acutely malnourished PLW

Tally sheets should be kept in a file

Monthly

Tally sheets are collected by a supervisor and compiled into a monthly report at the community level and UHC. A standard **Monthly Report Format** is used**,** one format for SAM and one format for MAM cases and one format for acutely malnourished PLW.

These formats are available in paper and electronic format.

WEEKLY TALLY SHEET REPORT FOR OUTPATIENT CARE OF CHILDREN WITH SAM

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC <11.5cm						
	Oedema						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	Non-responder						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Transfers OUT to inpatient care at UHC							
Transfers IN from inpatient care							
Return after default							
Enrolled again after relapse							
New Enrollment	Boy						
	Girl						
SUPPLY MONITORING							
Amount of NT in store at BEGINNING of the week (cartons)							
Amount of NT in store at the END of the week (cartons)							

WEEKLY TALLY SHEET REPORT FOR OUTPATIENT CARE OF CHILDREN WITH MAM

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC <12.5cm						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	Non-responder						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Return after default							
Enrolled again after relapse							
New Enrollment	Boy						
	Girl						

WEEKLY TALLY SHEET REPORT FOR OUTPATEINT CARE OF ACUTELY MALNOURISHED PLW

Month:_____20___

Outpatient site name/CHW name : _____

Ward:_____Union:_____ Upazila_____ Districts: _____

Week		1	2	3	4	5	Month Total
Date							
(A) TOTAL IN PROGRAM AT BEGINNING OF WEEK							
Enrolled	MUAC < 21cm						
	(B) TOTAL ENROLLMENT						
Exits/ discharges	Recovered						
	Death						
	Defaulter						
	(C) TOTAL EXITS						
(D) TOTAL IN PROGRAM AT END OF WEEK (A+B-C =D)							
ADDITIONAL INFORMATION							
Return after default							

Annex 20(a): MONTHLY REPORT - OUTPATIENT CARE FOR SAM

Name of Outpatient site/ health facility			
Union/Upazila/District		Month/ Year	
Report prepared by			

Age group	Total in Community outreach site beginning of the month (A)	ENROLMENT (B)					TOTAL ENROLLMENT (B)	Exits					Transfer out	TOTAL EXITS (C)	TOTAL AT END OF MONTH (D)
		New Enrollees			Transfer In			RECOVERED	DEATH	DEFAULTER	NON-RECOVERED	MEDICAL TRANSFER	Transfer TO inpatient		
		MUAC < 11.5cm	OEDEMA	RELAPSE	Return after default	Transfer FROM Inpatient									
6-59 months															
TOTAL															

TOTAL IN PROGRAM AT END OF MONTH (D) = A + B - C

Annex 20(b): MONTHLY REPORT - OUTAPATIENT CARE FOR MAM AND PLW

Name of Outpatient site/ health facility			
Union/Upazila/District		Month/ Year	
Report prepared by			

Target group	TOTAL IN PROGRAM AT BEGINNING OF MONTH (A)	ENROLMENT (B)				TOTAL ADMISSIONS (D)	RECOVERED	Exits			TOTAL EXITS	TOTAL AT END OF MONTH
		New Enrollees			Transfer In							
		MUAC < 12.5cm	MUAC < 21cm	RELAPSE	Return after default			DEATH	DEFAULTER	NON-RECOVERED		
6-59 months												
TOTAL												
TOTAL IN PROGRAM AT END OF MONTH (D) = A + B - C												

Minimum Indicator Package

Performance indicators		Program output indicators		Capacity indicators
Use the monthly report and monitoring cardsto determine the following outcomes				
% SAM recovered		# outpatient sites for SAM		# CHWs trained and active
% MAM recovered		# outpatient sites for MAM		# Service providers trained and active
% PLW recovered		# outpatient sites for PLW		# supervisors trained and active
% SAM died		Total SAM admissions		Ready Packs delivered
% MAM died		Total MAM admissions		#Pipeline breaks in supply of NT
% SAM defaulted		Total PLW admissions		#Pipeline breaks in supply of NS
% MAM defaulted		**CHW direct management**		
% PLW defaulted		# CHWs managing SAM		
% SAM non-responders		# CHWs managing MAM		
% MAM non responders		# CHWs managing PLW		
% Coverage				
Optional				
Average weight gain				
Average LOS				
#/% SAM children transferred to inpatient care				
#% SAM of children completing treatment in inpatient care after transfer				
#/% SAM children died in inpatient care				
#/% SAM of relapse (re-admissions)				
#/% MAM relapse				

Analyzing program outcomes

Program outcomes can be compared to international minimum standards. This will tell you if your program is performing well and according to international standards. Outcomes can be illustrated into a graph.

Outcomes	International recommended minimum standards*
% Recovered	> 75 %
% Defaulted	< 15 %
% Died	< 10 % (SAM)
	< 3% (MAM)
% Coverage	>50% (rural)
	>70% (urban)
Optional indicators	
Length of stay	
Rate of weight gain	>5g/kg/day**

*Based on Sphere Minimum Standards for Humanitarian Response(2011).
**A weight gain of 5g/kg/day is a suggested guideline for community-based programs.

The outcome data and analysis can be used to complete a **Monthly Narrative Report Form.**

Calculating rates

Recovery rate (or cure rate)
Number of children who completed treatment, met exit criteria and were discharged
Recovery rate should be more than 75%

Mortality rate
Number of children who have died while in the program
This includes children who died in inpatient care
Mortality rate should be less than 10% for SAM and 3% for MAM

Default rate
Number of children who defaulted while registered in the program

Default rate should be less than 15%

Use a sample of 30 discharged children (without oedema).

Average length of stay (days) calculated as:
Sum of length of stay (days) for each cured child
30 recovered children

Average weight gain (g/kg/day) is calculated as:
Discharge weight in g - minimum weight in g
Minimum weight in kg x number of days between date of minimum weight and discharge day

Average weight gain = sum of weight gains (g/kg/d)
Number of cards (e.g. 30 cards)

Monthly narrative report (completed by supervisors)

1. Performance indicators (according to tally sheets and monthly data report)

% discharged recovered_____

% of deaths_____

% of defaults_____

% non-responders_____

Compare performance indicators to SPHERE minimum standards. Present this as a pie chart.

2. Program outputs

Number of outpatient sites in program**:** _____

Number of CHWs treating SAM_____MAM_____PLW_____

Number CHW's actively identifying and referring cases of SAM/MAM/PLW during outreach activities_____

Total number of admissions SAM_____MAM_____PLW_____

Total number of exits SAM_____MAM_____PLW_____

Number of relapse SAM_____MAM_____PLW_____

Number of children transferred to inpatient care (SAM only)_____

Number of children transferred completing treatment in inpatient care _____

Number of deaths in inpatient care_____

Analysis

Reasons for default:

Actions taken to address absences and default:

Note any program issues (supply issues, barriers to access, staff problems, community issues, security concerns, anticipated increases in caseload)

Note any opening of additional outpatient sites, training planned:

Definition of terms used in monitoring and reporting

Term	Inpatient Care	Outpatient Care		
		SAM	MAM	PLW
Recovered	Discharged to outpatient site once stabilized	Meets discharge criteria	Meets discharge criteria	Meets discharge criteria
Absent	N/A	Missed one or more visits	Missed one or more visits	Missed one or more visits
Default	Absent more than 2 days	Absent 3 consecutive weeks	Absent 2 consecutive visits	Absent 2 consecutive visits
Death	Died when in inpatient care	Died while enrolled in outpatient care	Died while enrolled in outpatient care	Died while enrolled in outpatient care
Non- responder	Does not meet exit criteria after 14 days	Does not meet discharge criteria after 3 months	Does not meet discharge criteria after 4 months	N/A
Relapse	Discharged from inpatient and once again meets admission criteria	Discharged recovered and once again meets enrollment criteria	Discharged recovered and once again meets enrollment criteria	N/A
Medical transfer		Transferred for medical investigation	Transferred for medical investigation	Transferred for medical investigation
Return after default		Defaulted and returns to the outpatient care within a month	Defaulted and returns to the outpatient care within a month	Defaulted and returns to the program within a month
Transfers in and out				
Transfer IN FROM inpatient care		Transferred to outpatient care after discharge from inpatient care		
Transfer OUT TO inpatient care		Transferred from outpatient care to inpatient care		

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