



**GOVERNMENT OF PAKISTAN**

Ministry of National Health Services, Regulation & Coordination



**PAKISTAN NATIONAL GUIDELINES FOR  
THE COMMUNITY-BASED MANAGEMENT  
OF ACUTE MALNUTRITION**

**2014**





Children who suffer from acute malnutrition face a distinctly increased risk of death. An estimated 3.34 million under five year's old children are acutely malnourished in Pakistan. The challenge of malnutrition of children and women is immense and requires a concerted and strenuous efforts of all to improving the nutritional status of Pakistan.

In the public health context, management of acute malnutrition is as important as prevention of malnutrition. The Pakistan National Guidelines for Community-based Management of Acute Malnutrition (CMAM) is important document to be used for effective care and rehabilitation at community level. These guidelines reflect the experiences gained over 5 years of implementing Community-based Management of Acute Malnutrition in Pakistan. We expect that managers and community level service providers will use these guidelines and provide lifesaving management to children with acute malnutrition at community level by Government institutions and NGOs.

Acknowledging with thanks the collaboration and cooperation from stakeholders in contributing to these guidelines development, the MNHSRC would like to express its appreciation to those who contributed to the reviewing of the guideline. We thank the MNHSRC team, Provincial Department of Health, members of CMAM working group, Pediatricians' and academicians, public health experts, nutritionists, development partners and all others who have been involved in these guidelines development process. Special recognition goes to UNICEF, WFP and WHO for consistent support towards the compilation of the guidelines.

**Director General**

Ministry of National Health Services, Regulation & Coordination



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*Thank  
you*





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<	Less than
≤	Less than or equal to
>	Greater than
≥	Greater than or equal to
ANC	Ante-natal clinic
AWG	Average weight gain
BHU	Basic Health Unit
cm	Centimetre(s)
CMAM	Community-Based Management of Acute Malnutrition
CMV	Combined Mineral and Vitamin complex
CMW	Community Midwife
CSB	Corn-Soya Blend
DHIS	District Health Information System
ENN	Emergency Nutrition Network
EPI	Expanded Programme on Immunization
F100	Formula 100 therapeutic milk
F100D	F100 diluted
F75	Formula 75 therapeutic milk
g	Gram(s)
HMIS	Health management information system
IEC	Information, education and communication
IFE	Infant Feeding in Emergencies
IP	Inpatient care
IU	International unit(s)
IV	Intravenous
IYCF	Infant and young child feeding
KAP	Knowledge, Attitudes and Practice
kcal	Kilocalorie(s)
kg	Kilogram(s)
L	Litre(s)
LHW	Lady Health Worker
LOS	Length of stay
MAM	Moderate acute malnutrition
mg	Milligram(s)
ml	Millilitre(s)
MSF	Médecins Sans Frontières



MUAC	Mid-upper arm circumference
NGO	Nongovernmental organisation
NGT	Nasogastric tube
ORS	Oral rehydration solution
PLW	Pregnant and lactating women
RDT	Rapid Diagnostic Test
ReSoMal	Rehydration solution for malnutrition
RHC	Rural health centre
RUSF	Ready-to-use supplementary food
RUTF	Ready-to-use therapeutic food
SAM	Severe acute malnutrition
SC	Stabilisation centre
Sphere Standards	The Sphere Project 2010 Humanitarian Charter and Minimum Standards in Disaster Response
SQUEAC	Semi- Quantitative Evaluation of Access and Coverage
SST	Supplemental suckling technique
TBA	Traditional Birth Attendant
TFP	Therapeutic feeding programme
TSFP	Targeted supplementary feeding programme
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WSB	Wheat soya blend





## 1. ABOUT THE CMAM GUIDELINES

These guidelines are a revision of existing guidelines and provide technical guidance for the management of acute malnutrition using the community based management of acute malnutrition approach (CMAM). Medical protocols are based on current national protocols and the latest global evidence is used where possible.

The guidelines can be used by those directly implementing the various CMAM components as well as by supervisors, programme managers and policy makers.

They are suitable for use in both government-led and NGO-led programmes.

Given the importance of the need to improve nutrition in the first 1,000 days of life and acute malnutrition being strongly attributable to poor caring practices in Pakistan, infant and young child feeding (IYCF) services are often integrated into CMAM programmes. Aspects on maternal nutrition should also be included. These guidelines reflect this integration of IYCF into CMAM, especially since there was no IYCF guideline at the time of this revision.



The management of severe acute malnutrition with complications in inpatient care follows the WHO protocols for Phase One while the treatment of infants is based on the MSF protocol and infant feeding in emergencies module 2v1.1.

WHO. *Management of severe acute malnutrition: A manual for physicians and senior health workers*. Geneva 1999

WHO. *Management of the child with a serious infection or severe malnutrition*. Geneva, 2000

WHO. *Guidelines for the inpatient treatment of severe acute malnutrition*. Geneva 2003

MSF. Protocol for infants less than 6 months old. December 2010.

Operational Guidance on Infant and Young Child Feeding in Emergencies, v2.1, February 2007. IFE

Core Group. Available at <http://www.enonline.net/ife> (Chapters 8 and 9)





## 2. COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION (CMAM)

### 2.1 Target groups

- acutely malnourished children less than five years
- acutely malnourished pregnant and lactating women whose child is less than 6 months old (PLW)

### 2.2 The components of CMAM

The CMAM approach has four components:

**Community outreach:** this aims to improve effectiveness through early detection of cases and maximizing coverage. 'Active case finding' and community sensitisation are ways of achieving this and existing community networks can be used where possible. The follow-up of cases where required, is also a component of community outreach.

**Targeted supplementary feeding program (TSFP):** Children with moderate acute malnutrition (MAM) and pregnant and lactating women with acute malnutrition are provided take-home rations every two weeks or every month. Moderately acutely malnourished children with complications are admitted to the TSFP but referred for medical treatment and return when medical complications are resolved. TSFP also includes children that are discharged from OTP and continue to be managed in a TSFP.

**Outpatient therapeutic program (OTP):** Children with severe acute malnutrition (SAM) WITH appetite and WITHOUT medical complications are treated with Ready to Use Therapeutic Food (RUTF) and routine medications. They can be managed at home with regular visits to the health facility. The majority of children with SAM (>85%) can be managed successfully in this way without any need for inpatient care.

**Inpatient care in a Stabilisation Centre (SC):** Severe acutely malnourished children WITHOUT appetite and/or WITH medical complications are treated as inpatients in a Stabilisation Centre until stabilised. Acutely malnourished infants 1-6 months are also treated in a Stabilisation Centre and on discharge, they are followed up in OTP but do not receive RUTF. Neonates should be treated on the paediatric ward due to the need for specialized care.

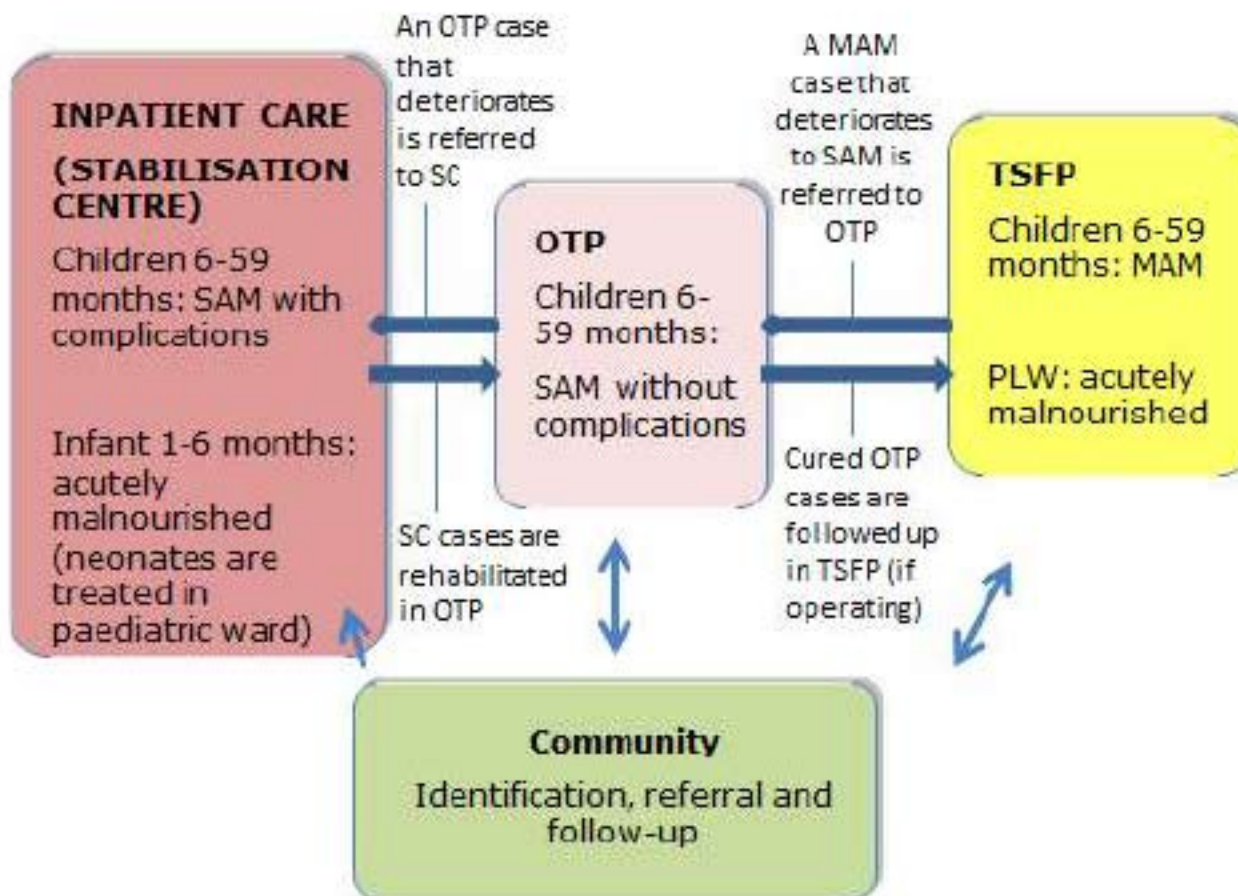


Figure 1: Target groups of CMAM components and transfer routes

### 2.3 Referral, transfer and follow-up

Good coordination and communication between the Stabilisation Centre and out-patient care and with the community is essential to make sure children receive the appropriate care and follow-up. Careful monitoring and tracking contribute to positive outcomes for the child or PLW. Transfer slips are used to refer children between OTP and the Stabilisation Centre. Community health workers are informed when a child is transferred from OTP to the Stabilisation Centre or when a child is absent or has defaulted in the OTP so they can follow up the child and mother/caretaker at home and investigate the reasons.

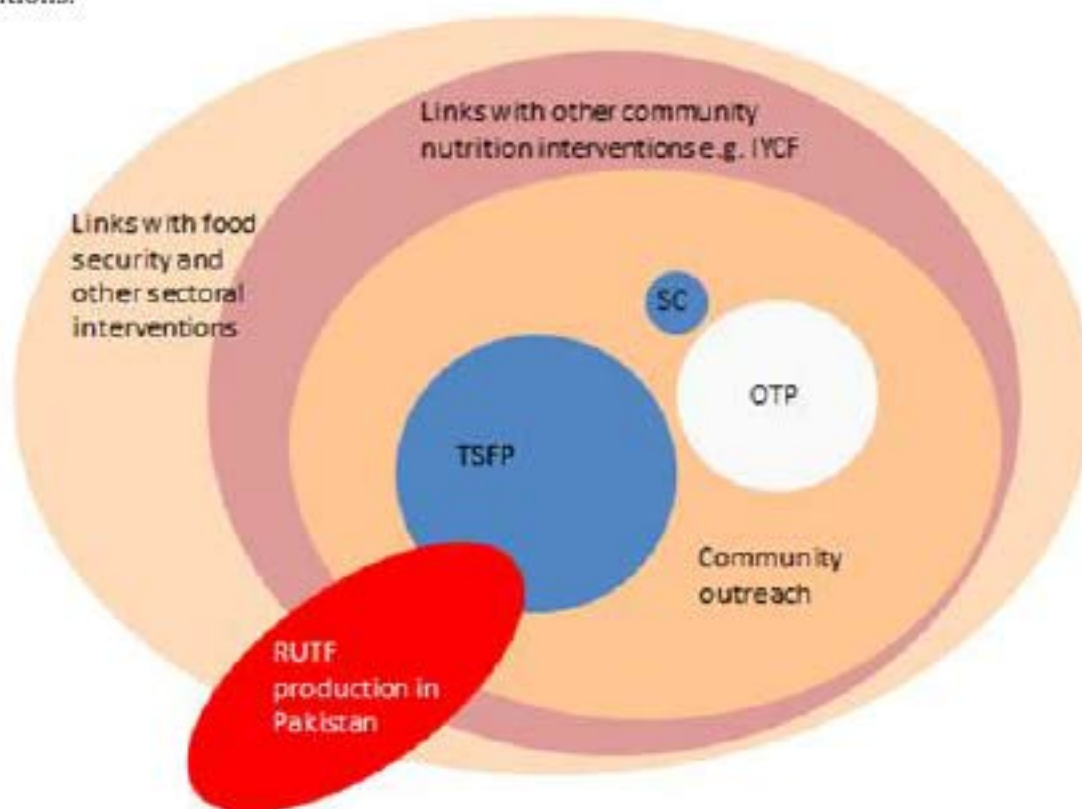
### 2.4 Maternal nutrition and IYCF integrated into CMAM

There are various contact points within the CMAM package where maternal nutrition and IYCF can be integrated: TSFP, OTP and SC. These provide an opportunity to carry out age-specific feeding assessments and provide counseling, education and support through groups or on an individual basis. It is an opportunity for the provision of Multiple Micronutrient Supplementation to pregnant women. In addition to community outreach for CMAM, some of the community networks such as the Lady Health Workers (LHWs), community midwives (CMWs) and mother support groups can provide IYCF counseling, education and support, and education on maternal nutrition as well, although as in the case of LHW for example, this will be part of their assigned workload anyway.





The figure below shows the components of CMAM and how these are situated alongside other interventions.



**Figure 2: CMAM components and links with other interventions**

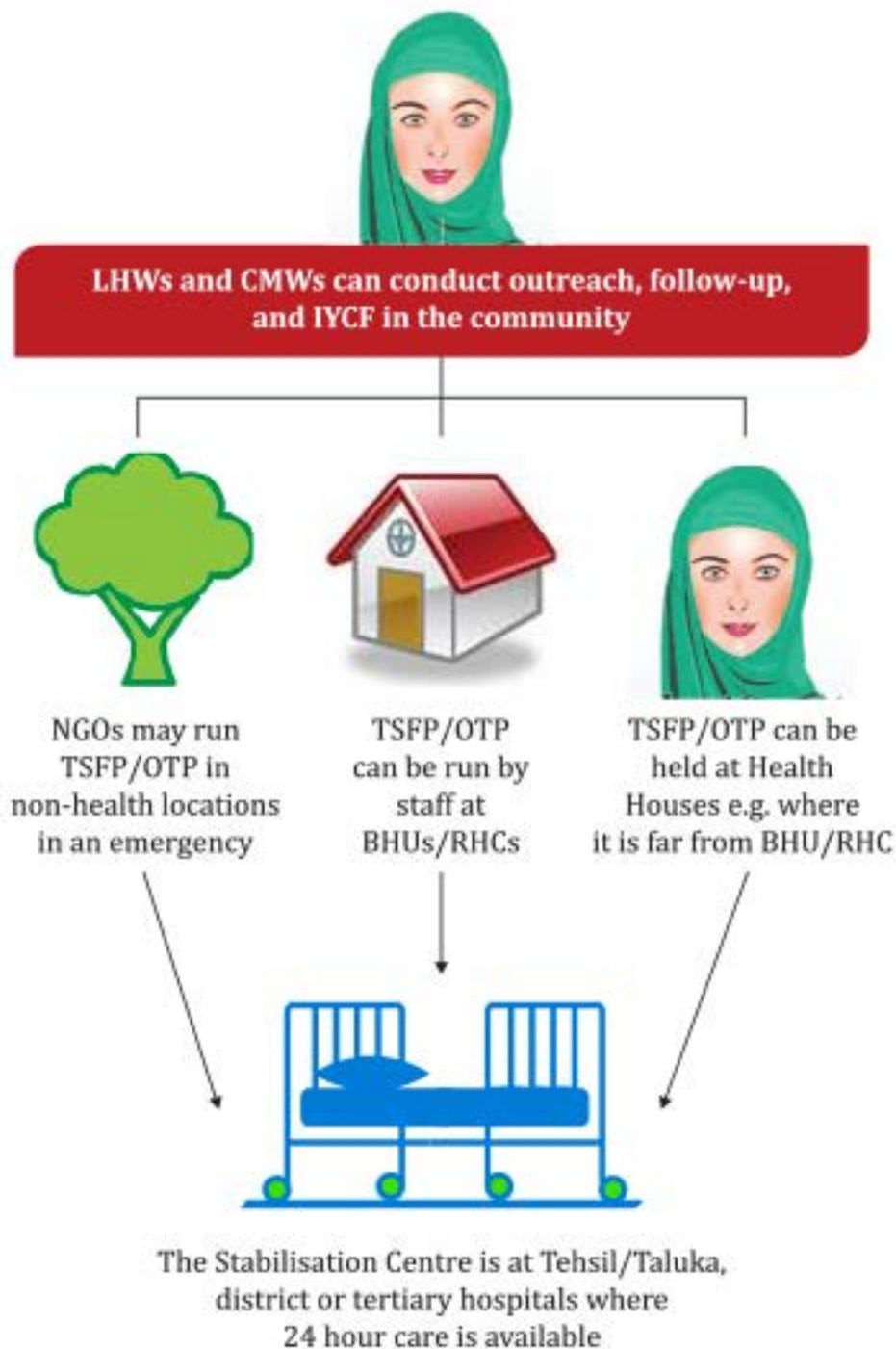
## 2.5 CMAM in Pakistan

According to the Pakistan National Nutrition Survey the rate of wasting was 15.1% (2011). In Pakistan there is a burden of acute malnutrition in both emergency and non-emergency contexts and the CMAM modalities may vary: NGOs generally operate resource intensive programmes in emergency settings while the government may implement longer-term less resource intensive programmes through the national health system. In NGO-led programmes, some or all of the components may be integrated into the health service depending on the situation (for example, the Stabilisation Centre may be located in a district hospital while the TSFP component may be run in a non-health facility). NGOs should integrate CMAM programmes into the government structure wherever possible. In government programmes, where the different CMAM components are located may vary as well: OTPs may be run from Basic Health Units (BHUs) or Rural Health Centres (RHCs) or from Health Houses by Lady Health Workers (LHWs). The ethos of CMAM is that it should be adapted to the context whilst maintaining outcomes.

With fewer resources available, the TSFP component may not be included in longer-term programmes while OTP may be conducted by one staff member with a LHW to assist with IYCF support. An IYCF component can be included in all CMAM components with the intended aim of addressing the underlying causes of acute malnutrition in children less than 24 months. There is also an opportunity to convey key messages on maternal nutrition.



Figure 3: Different CMAM modalities in Pakistan





### 3. COMMUNITY OUTREACH

#### 3.1 The purpose of community outreach

Community outreach that is specific to the CMAM programme is part of a number of different community nutrition activities, such as maternal nutrition and IYCF, that take place in Pakistan. Strong linkages and integration across all community nutrition activities is key.

CMAM community outreach is essential to maximise the effectiveness of a CMAM programme. The community should fully understand the purpose of the programme and why it is important to identify and treat acutely malnourished children. Effective links between health facilities and the community are important to ensure malnourished children are appropriately identified, referred and followed up. Community outreach workers are on the front line and are well placed to explore and address some of the reasons why children become malnourished in the first place. Case finding can take place at both community and facility level.

The purpose of community outreach is to:

- Promote understanding and ownership of the programme.
- Increase programme coverage.
- Ensure early detection of cases
- Strengthen active case finding, referral and follow up.
- Understand reasons why people do not access services (barriers to access) and reasons for absence and default so they can be addressed).
- 

Since community outreach workers such as LHWs are also responsible for preventative nutrition services, there can be strong integration between prevention of malnutrition and management of malnutrition at the community level. While children are being effectively treated, the underlying causes can also be addressed.

#### 3.2 Basic requirements for community outreach

WHO conducts community outreach: Community outreach is usually the role of community outreach workers – this includes Lady Health Workers, Community Midwives and other community health workers. Mothers groups and traditional birth attendants (TBAs) also have a role in community outreach. Where NGOs operate, community volunteers can also be recruited to assist with case finding and follow up.





**WHERE:** Community outreach takes place at the community level. Community outreach workers can do outreach from Health Houses, through home visits and through dialogue with community groups and community leaders. Community outreach workers should be present at OTP to assist health care providers and to ensure effective linkages between the health facility and the community.

**WHEN:** Active case finding and follow-up is ongoing. Community meetings and focus group discussions with key stakeholders, community members and/or the caretakers for children in the programme, can be held periodically to raise awareness about the programme and to investigate any issues such as reasons for defaulting. Good community awareness will also lead to self-referrals.

### 3.3 Basic supplies

MUAC tapes

Referral slips (Annex 1)

- Key IYCF and maternal nutrition messages (Annex 2)
- Key messages on RUTF (Annex 15)

### 3.4 Elements of community outreach

The following process can be followed when considering community outreach:



Figure 4. CMAM community outreach process



### 3.5 Understanding the community

Understanding community structures and perceptions is valuable for effective outreach. While a LHW may already know this information, it is useful to think how it can positively contribute to CMAM service delivery and demand. It is useful to understand and have information on community structures (formal and informal) and key stakeholders (community leaders, religious leaders, traditional practitioners and community based organisations). It is important to know who takes key decisions as well as community attitudes to health and malnutrition. This understanding can help shape the programme.

**Table 1. Community information to collect**

Useful information to obtain	Why it is important
Local terms for malnutrition and perceived causes and common solutions	Using local terms of malnutrition when describing who within the community the programme targets, will lead to better understanding and self-referral. Understanding perceived causes and common solutions will help shape IEC messages.
Identification of key community leaders and other influential people	If there is good understanding of the programme amongst this group, it will aid case finding, self-referral and follow-up. It will also enhance acceptability of the programme leading to better uptake. They can also feedback any problems with the programme which may need to be addressed.
Identification of existing structures and community based organisations/groups such as mothers groups	See 'identification of key community leaders and other influential people'. In addition, CMAM, maternal nutrition and IYCF messaging can be harmonized.
Formal and informal channels of communication that are known to be effective	This is useful in conveying messages about what the programme does which will lead to self-referral but also for tracing individuals for follow-up, such as defaulters.
Attitudes and health seeking behaviours	Understanding why people do or do not access health care will shape the programme leading to better coverage and effectiveness.
Existing nutrition and health interventions in the community	This is to ensure harmonization but also to convey what the programme is about.

### 3.6 CMAM messaging

The community should understand what the programme does and how to access the services. Key messages about CMAM can be conveyed by community outreach workers using the structures described above and to anyone presenting at health facility level, such as at the ante-natal clinic.



Such messages include:

- The programme targets children under 5 and PLW (if there is a TSFP component)
- The programme treats children and PLW with (acute) malnutrition
- Most children can stay at home while the acute malnutrition is managed
- The programme is held at the BHU (adapt accordingly)
- How the community can link with the programme - e.g. through the LHW

### 3.7 Community engagement

Having assessed the community structures and developed key CMAM messages, dialogue can be held with the community about what the programme does, who it targets and how to access the service. The LHW has a significant workload aside from CMAM commitments, therefore such dialogue can take place through the course of her work.

### 3.8 Case finding and referral

Infants, children and PLW with acute malnutrition need to be identified as early as possible and referred for treatment. Case finding is a way of achieving this.

Cases can be screened through:

- House to house visits
- Screening at health facilities and during outreach programmes
- Screening at community meetings, health campaigns in the community and at other opportunities
- Growth monitoring sessions, health facilities, paediatric wards

Children 6-59 months and PLW are identified as malnourished by measuring the mid-upper arm circumference (MUAC) and assessing for oedema (Annex 3). Infants are identified by low birth weight, presence of oedema, lack of weight gain or visible signs of wasting.

- When a child or PLW is identified as malnourished according to the table below, the caretaker or the mother should be informed where to go for treatment and when.
- The community outreach worker or health facility staff should make sure the mother/caretaker understands what the programme is for.
- Micronutrient sachets are given to children who fall within the normal MUAC range ( $\geq 11.5$  cm).

The LHWS fill in the screening register (Annexes 4 and 5)

**Table 2. Identification and referral of acutely malnourished children at community level**

Target Group	Finding	Action
6-59 months	MUAC < 11.5cm (RED)	Refer to OTP
6-59 months	Bilateral pitting oedema	Refer to OTP
6-59 months	MUAC $\geq 11.5$ and < 12.5 cm (YELLOW)	Refer to TSFP (if available)
Pregnant and lactating women	MUAC <21.0cm	Refer to TSFP (if available)
Infants <6months	Visibly wasted Bilateral oedema Too weak or feeble to suckle Failing to gain weight	Infants <6 months are referred to OTP/health facility for evaluation





A simple referral slip is used. (**Annex 1**). This should be done in duplicate so that one copy is given to the caretaker and the other is kept for the record.

### **3.9 Linking with CMAM components**

In order for referral and follow up to be effective, there must be good linkage between the health facility and community health workers and volunteers. This is to ensure referrals arrive to be screened for admission and to ensure timely and accurate follow-up.

The presence of community outreach workers at the OTP day will facilitate this link. In the eventuality that this is not possible, innovative ways of conveying information to and from the community outreach worker should be sought. The information collected on community structures and networks may be helpful for this.

### **3.10 IYCF and maternal nutrition**

IYCF and maternal nutrition support is generally already part of the role of LHWs. This is advantageous because:

- The LHW can ensure that mothers in the programme or with children in the programme who require IYCF support receive it through home visits or group support (i.e. through mother support groups). The messages in (**Annex 2**) can provide a basis on which to offer support.
- Mothers and children that the LHW meets through IYCF home visits and mothers support groups can be screened for admission to the programme

### **3.11 Follow-up**

Community outreach workers play an important role in tracing and follow-up through home visits.

- **Children and PLW who are absent or who have defaulted should be traced and referred back to the programme to complete treatment**
- **The reasons for absence should be understood**
- **Children who have static weight or have lost weight also require follow up at home.**

The reasons for absence and defaulting should be understood to determine if any changes need to be made to the programme, for example whether the designated day needs changing.

The community outreach worker should collect/receive information on which cases require follow-up after each TSFP/OTP session and feedback the information before/at the next session. Communication links with the Stabilisation Centre should be ongoing to receive information about any defaulters, so they can be encouraged to return and continue treatment, or those that have been discharged to ensure they continue to be managed in OTP.



## 4. SUMMARY OF MANAGEMENT OF ACUTE MALNUTRITION

Table 3. Referral pathway for acutely malnourished children and PLW

Assess	Classify	Action to take	Discharge
<p>If age is &lt; 6 months visible severe wasting or Bilateral pitting oedema in effective feeding weight for length &lt; -3 Z-scores</p>	<p>Severe Acute Malnutrition with medical complication</p>	<p>For infants 1-6 months refer to SC for in-patient management For neonates refer to paediatric ward Nutritional treatment: <b>Breast-fed infants:</b> supplemental suckling technique (F100D) <b>Non-breastfed:</b> F75 and F100D <b>Medical treatment:</b> Routine drugs</p> <p>For infants 1-6 months refer to SC for in-patient management For neonates refer to paediatric ward Nutritional treatment: <b>Breast-fed infants:</b> supplemental suckling technique (F100D) <b>Non-breastfed:</b> F75 and F100D <b>Medical treatment:</b> Routine drugs</p>	<p><b>Breastfed infant:</b> The infant is gaining weight (10g/day) on breast milk alone after the SST has been used. No medical problem and no oedema <b>Non-breastfed infant:</b> There is steady weight gain for 5 consecutive days. AND The infant is taking breast milk substitute successfully. The caretaker is able to give feed correctly.</p> <p><b>Children 6-59 months</b> Appetite returned (eats at least 75% of RUTF) No medical complications Oedema reduced (to at least 1+) Weight gain for 2 consecutive days</p>
<p><b>-If age is 6-59 months</b> Bilateral pitting oedema +++ MUAC &lt; 11.5 cm with bilateral pitting oedema Poor appetite Vomits everything Fever or hypothermia Elevated respiratory rate or chest drawing in Dehydrated Severe or persistent diarrhoea Anaemia Extensive infection or open skin lesions Unconscious, lethargic, convulsions Any condition that requires infusion or NG tube Weight loss or static weight Not recovering</p>	<p>Severe Acute Malnutrition with no complication</p>	<p>Manage in OTP using OTP protocol and Counsel on IYCF Nutritional treatment: standard by RUTF weight Medical treatment: Routine drugs and supplemental drugs if required</p>	<p><b>Where there is no TSFP:</b> MUAC <math>\geq</math> 11.5cm, clinically well, no oedema (for two consecutive visits) <b>AND</b> minimum 8 weeks stay in programme</p> <p><b>Where there is a TSFP:</b> MUAC <math>&gt;</math> 11.5cm (for two consecutive visits), clinically well, no oedema (for two consecutive visits)</p>





<p><b>For children 6-59 months</b></p> <ul style="list-style-type: none"> <li>■ If MUAC <math>\geq</math> 11.5 cm and <math>&lt;</math>12.5 cm and without bilateral pitting oedema</li> </ul>	<p><b>Moderate Acute Malnutrition</b></p>	<p>Manage in SFP as per protocols and Counsel on IYCF/Nutritional treatment: Acha Mum, 1.50 kg/15 sachets</p> <p>Medical treatment: iron/folate, and de-worming, vaccinations</p>	<p>MUAC <math>\geq</math> 12.5cm No weight loss for two consecutive visits AND Minimum 8 weeks stay in the programme</p>
<p>For pregnant women and lactating women whose child is less than 6 months old if MUAC <math>&lt;</math> 21.0 cm</p>	<p><b>Acute malnutrition</b></p>	<p>Manage in SFP as per protocols and Counsel on maternal nutrition and IYCF</p> <p>Nutritional treatment: WSB 5kg/month and Oil 2.25kg/month</p> <p>Medical treatment: iron/folate and de-worming (lactating women)</p>	<p>MUAC <math>&gt;</math> 21.0cm AND Minimum 8 weeks stay in the programme</p>
<ul style="list-style-type: none"> <li>■ If MUAC <math>&gt;</math> 12.5 cm and without bilateral pitting oedema</li> </ul>	<p><b>No acute malnutrition</b></p>	<p>Counsel on IYCF and congratulate the mother</p>	



## 5. TARGETED SUPPLEMENTARY FEEDING PROGRAMME (TSFP)

This guideline focuses on targeted supplementary feeding (TSFP).

### 5.1 The purpose of TSFP

- To treat moderately acutely malnourished children, and acutely malnourished pregnant and lactating women
- Reduce mortality and morbidity among children 6 to 59 months.
- To rehabilitate referrals from therapeutic feeding programmes (i.e. children cured from SAM).

### 5.2 Basic requirements for TSFP

**WHO is qualified to run TSFP:** TSFP can be operated by a trained professional

**WHERE:** A TSFP may run alongside an OTP or at a separate site.

**WHEN:** TSFP sessions operate on a designated day and can run every two weeks or every month if there are accessibility issues.

### 5.3 Basic equipment and supplies for TSFP

Basic equipment	Basic supplies	Protocols and reference sheets
<ul style="list-style-type: none"> <li>○ Weighing scales</li> <li>○ MUAC tapes</li> </ul>	<ul style="list-style-type: none"> <li>○ SFP card</li> <li>○ Transfer slip to OTP</li> <li>○ Essential medicines</li> <li>○ Supplementary ration</li> </ul>	Annex 3: Anthropometric measurement techniques Annex 18: Iron and folic acid doses Annex 6: TSFP routine medicines Annex 7 and 8: TSFP enrollment register Annex 9 and 10: Ration card Annex 11: Transfer slip

Table 4. Basic equipment and supplies for TSFP

### 5.4 Admission criteria

Category	Criteria
<b>TARGET GROUP:</b>	
children 6-59 months	
pregnant women	
lactating women (with infant less than 6 months old)	
Children 6-59 months	MUAC $\geq$ 11.5 and $<$ 12.5 cm (Yellow)
Pregnant and lactating women (with infant less than 6 months old)	MUAC $<$ 21.0cm
<b>Other reasons for TSFP admission</b>	
Relapse	Children or PLW previously discharged cured from TSFP but meet TSFP admission criteria again within 2 months
Discharged from OTP or SC	Child is transferred to TSFP after completion of treatment in OTP or SC
Return after default	Children or PLW who return after default within two months
Other	e.g. moved from another TSFP site

Table 5. Admission criteria to TSFP



### 5.5 Procedure for admission and treatment

- Explain to the caretaker or PLW that they/their child needs to be enrolled in the programme and why. Explain the purpose of the programme to the PLW or caretaker.
- Fill in the TSFP register (Annexes 7 and 8)

#### STEP 1: Measure MUAC, weight, assess oedema and health condition

- Measure MUAC
- Check for oedema
- Measure weight (children only)
- Ask about the health condition - appetite and any clinical symptoms

If there is bilateral oedema then refer the child to OTP. For PLW, if oedema is present refer for medical assessment.

If the child meets the criteria for OTP (severely acutely malnourished) refer to the nearest OTP. If the child is not alert, reports to have no appetite and is clinically unwell admit to the TSFP but refer for medical treatment. Management of MAM will continue once any medical complications have been resolved.

#### STEP 2: Give routine medication and supplementation

The following medicines are routinely given in TSFP:

- Deworming – except for pregnant women and children less than one year old
- Measles
- Iron-folic acid or Multiple Micronutrient Supplement (micronutrient sachets) are given to children.

Details are given in Annex 6

#### STEP 3: Give TSFP ration and key messages

- The supplementary ration is given to the mother/caretaker to take home. It is to be given to the malnourished PLW or child enrolled in the programme only.

Nutritional treatment in TSFP is through a take home supplementary ration. This is intended to supplement the diet taken at home. The ration should provide 750-1200 kcal/person/day with 10-12% energy from protein.

Rations are usually a fortified blended food or a Ready to Use Supplementary Food (RUSF). There is RUSF production in Pakistan, the RUSF is known as Acha Mum and the main ingredients are chickpeas, dried milk, vegetable oil and sugar.

- **Fortified Blended Food:**
  - two common types: corn soy blend (CSB) and wheat soy blend (WSB)
  - fortified with vitamins and minerals
  - contain about 350-400kcal/100g
  - oil should also be included in the ration to ensure adequate energy
  - oil should be fortified with Vitamin A





### A typical blended food ration:

<b>Daily ration:</b>	200-300g blended food/person/day 25-30 g of oil/person/day
<b>Ration for two weeks:</b>	3-5 kg blended food 300-450g of oil
<b>Ration for one month:</b>	6-10kg blended food 600-900g oil

**Table 6. Blended food rations**

Other commodities such as sugar, pulses and high energy biscuits may be added to the ration depending on what is available. Sugar is already included to some blended foods.

Blended foods can be mixed with oil, sugar prior to distribution. This is known as **premix**. The aim in using premix is to ensure that rations (particularly high value commodities such as oil) do not end up being used for general household use or being sold on the market. However, the process of pre-mixing can be time consuming. It also reduces the shelf life of the ration. Once oil is mixed with blended food, it will last a maximum of two weeks before going rancid.

- **New blended foods: CSB ++ and WSB ++**
  - increased fat content and improved micronutrient content
  - are aimed at children less than 24 months with MAM
  - the recommended ration size is 200g/person/day.
- **Ready to use supplementary food (RUSF):**
  - highly energy and nutrient dense
  - does not require cooking
  - similar to RUTF (used for treatment of SAM) but does not contain milk powder
  - light in weight making it easy to transport and distribute
  - weight gain is much better when using RUSF compared to standard blended foods.

Ration size for RUSF for MAM should be:

**Daily suggested dosage for MAM child (6-59months of age): 100gm sachet/child/day**

Acha Mum provides (per 100g): 513 kcal, 30g fat and 13g protein.

**RUSF should not be used for treating SAM**

It is not currently routine practice to use RUTF for the management of MAM but it has been practiced. There are some advantages in using the same product for treating both SAM and MAM particularly if both SAM and MAM are managed at OTP and by the same community health workers. Children with MAM will receive a standard ration of 1-2 sachets a day.

#### **STEP 4: Give key messages**

- Give clear advice to mothers/caretakers on how to prepare the ration.
- When using blended foods, preparation and cooking demonstrations should be given at the TSFP site or in the community.
- Ensure the mother/caretaker understands that the ration is intended for the malnourished individual and is not to be shared.
- Explain how to store the ration safely
- Make sure the mother/caretaker knows the date to return to the TSFP

**STEP 5: TSFP follow-up visits**

- Children and mothers should attend the TSFP every month or every two weeks for monitoring and to receive their supplementary ration.
- Each visit the MUAC and weight is measured and oedema and general health assessed
- Children who are clinically unwell should be referred for medical treatment but remain in the TSFP and continue treatment on their return.
- If the child has not gained weight after two consecutive monthly visits or after three weekly visits, or if the child is losing weight refer him/her for a medical check-up at the nearest health facility.
- Children who are admitted to TSFP and then deteriorate or develop oedema and meet entry criteria for OTP should be transferred to OTP.

**5.6 IYCF and maternal nutrition in TSFP**

Where there is a designated IYCF person the following actions can be undertaken at each stage of the TSFP:



**Figure 5. Integration of IYCF into TSFP**

IYCF support can be conducted in a designated "breastfeeding corner" that is apart from other TSFP activities. It should offer privacy and be spacious and comfortable. Key IYCF messages can be found in **Annex 2**.

Key messages around maternal nutrition can also be conveyed (**Annex 2**). Details of the session can be recorded using **Annex 12**.





### 5.7 Exit criteria from TSFP

Category	Criteria
<b>Recovered Children 6-59 months</b>	MUAC $\geq$ 12.5cm AND Minimum 8 weeks stay in the programme
<b>Recovered Pregnant and lactating women</b>	MUAC $\geq$ 21.0cm or when baby reaches 6 months old AND Minimum of 8 weeks stay in programme
<b>Defaulted</b>	Absent for 2 consecutive visits if TSFP is monthly or 3 consecutive visits if TSFP is every 2 weeks
<b>Died</b>	Died during time registered in TSFP
<b>Non-recovered</b>	Child has not reached discharge criteria within 4 months
<b>Medical transfer</b>	Referred for medical treatment
<b>Transfer to TFP</b>	Child has become severely acutely malnourished and referred to therapeutic feeding programme.
<b>Other reasons for exit</b>	
<b>SAM discharges</b>	Those children that were transferred to TSFP from OTP and are cured, defaulters, non-recovered, died
<b>Other</b>	e.g. Moved to another TSFP site

Table 7. Exit criteria from TSFP



## 6. OUTPATIENT THERAPEUTIC PROGRAMME (OTP)

### 6.1 Basic requirements for OTP

**WHO is qualified to run OTP:** A skilled, trained health care provider

**WHERE:** The number and geographical location of OTPs should allow maximum geographical coverage and aim to ensure those accessing the service don't have too far to travel. OTPs can be run from any level of health facility; to be closer to the community they can be operated at first level health care facilities but can also be run from larger facilities such as hospitals to reach a more urban population. OTPs may also be run in tents (in camps) or in the open in acute emergencies or disaster situations. Where accessibility is a particular issue, mobile OTPs can operate.

**WHEN:** Where the treatment of SAM is integrated into local primary health services or the caseload is low, newly admitted OTP beneficiaries may be seen as part of the normal clinical caseload in the health facility and children can be admitted at any time. Otherwise, all new admissions are seen on the designated OTP day. The follow up visits continue on a weekly basis until the child is ready for discharge. OTP follow up sessions may operate on a designated day every week.

OTP can also be held **every two weeks** in situations **WHEN:**

### 6.2 Basic equipment and supplies for OTP

Basic equipment	Basic supplies	Protocols and references
<ul style="list-style-type: none"> <li>◦ Weighing scales</li> <li>◦ MUAC tapes</li> <li>◦ Thermometer</li> <li>◦ Time watch</li> </ul> <p><b>Where possible:</b></p> <ul style="list-style-type: none"> <li>◦ Clean water for drinking (jug and cups)</li> <li>◦ Water and soap for hand-washing</li> </ul>	<ul style="list-style-type: none"> <li>◦ List of Stabilisation centres</li> <li>◦ List of other OTP / TSFP sites in the area (if TSFP is available)</li> <li>◦ Essential medicines as required in the routine medical protocol for OTP</li> <li>◦ RUTF</li> </ul>	<p>Annex 3: Anthropometric measurement techniques</p> <p>Annex 13: OTP register and follow-up card</p> <p>Annex 14: Action protocol (OTP)</p> <p>Annex 11: Transfer slips</p> <p>Annex 15: Key RUTF messages</p> <p>Annex 16: Routine medical protocol for OTP</p> <p>Annex 17: RUTF ration for OTP</p> <p>Annex 18: Iron and Folic acid doses (Optional use)</p> <p>Annex 19: Malaria protocol for OTP</p> <p>Annex 20: Additional medicines for severe acute malnutrition in OTP (optional use)</p> <p>Annex 21: Paracetamol and metronidazole doses (Optional use)</p>

Table 8. Basic equipment and supplies for OTP



### 6.3 Admission criteria

N.B. Infants <6 months who are visibly wasted, have bilateral oedema, failing to gain weight, have WFH < -3 Z-scores, or have nutritional complications are referred to the Stabilisation Centre (infants 1-6 months) or the paediatric ward (neonates) (see Sections 7 and 8). On discharge, these infants are followed up in OTP but DO NOT RECEIVE RUTF. Other infants should NOT be treated in OTP.

Category	Criteria (any of the following):
<b>Target Group: Children 6-59 months with SAM with APPETITE and NO medical complications</b>	
<b>Children 6-59 months</b>	MUAC <11.5cm
	Bilateral pitting oedema grade + or ++ (Marasmic-kwashiorkor cases are referred to the Stabilisation centre)
<b>Other reasons for OTP admission</b>	
<b>Relapse</b>	Child returns after discharged cured within two months and meets the OTP admission criteria
<b>Transfer from Stabilisation Centre</b>	Child transferred to OTP after treatment in SC
<b>Return after default</b>	Children who return within two months after defaulting continue their treatment if they still fulfill the enrolment criteria for OTP
<b>Other</b>	<b>e.g. Transfer from other OTP site:</b> Child is referred from another OTP site Infants who have received treatment in the SC are followed up in OTP but DO NOT RECEIVE RUTF

**Table 9. Admission criteria to OTP**

SC refusal Where the mother/caretaker refuses transfer to Stabilisation Centre despite advice and counselling, the child should be carefully monitored in the OTP and followed up by community health workers. In reporting, they are not classed as a separate category but as a new admission.

### 6.4 When a child presents at OTP

#### STEP 1: Offer sugar water

- Offer water on arrival to all cases. Sugar water (10% sugar) should be given if sugar is available. Two teaspoons of sugar/100ml of water or 20 teaspoons in 1 litre of water.

#### STEP 2: Measure MUAC, weight and assess for oedema

- Measure MUAC (Annex 3).
- Check for oedema (Annex 3).
- Measure weight (Annex 3)
- If the child meets the criteria for enrolment, complete the admission section of the OTP register and assign the child a number and note this on the register (**Annex 13**).

If the child **does not meet the criteria for OTP**, decide if the child requires medical treatment or is eligible for TSFP. If TSFP is not available refer to other ongoing community health and nutrition programs and health education and communication interventions (IEC). If the child is not acutely malnourished but requires medical treatment, refer to the outpatient department.

#### STEP 3: Medical Assessment

- Conduct a medical assessment and record results in the OTP register
- Use the Action Protocol to determine if there are any medical complications (**Annex 14**).



**STEP 4: Appetite Test**

- Ask the caretaker to wash her/his hands and the child's hands with soap.
- Show the caretaker how to use the RUTF
- Give the mother/caretaker the RUTF and ask the caretaker to give the RUTF to the child and watch to see if the child eats the RUTF. This is called an "appetite test"
- If the child is reluctant to eat the RUTF, the caretaker and child should move to a quiet and private area to encourage the child to take the RUTF, while the health care provider watches. This may take up to one hour.
- It is essential that the health care provider observe the child eating at least two small spoonfuls of RUTF before the child can be accepted for OTP. Care must however be taken to ensure the child is not forced to eat.

**STEP 5: Decide if the child should continue in OTP or be transferred to the Stabilisation Centre**

A child is referred to the Stabilisation Centre if:

- there is a poor appetite or they refuse to eat RUTF
- there is oedema +++ or marasmum-kwashiorkor
- there are medical complications

**Appetite test with RUTF**

Appetite	Observation	Action
Good	Child takes the RUTF eagerly	Child may continue in OTP
Poor	Child takes RUTF with persistent encouragement	Child may continue in OTP but must be observed carefully for any weight loss or clinical deterioration
Refused	Child refuses RUTF even after persistent encouragement	Transfer to Stabilisation Centre

**Table 10. Interpretation of appetite test**

If the child meets criteria for transfer to Stabilisation Centre:

- Explain the situation to the caretaker.
- Advise the caretaker to keep the child warm and give frequent small amounts of 10% sugar water and if possible give the first antibiotic dose.
- Complete a transfer slip to the nearest Stabilisation Centre. Give one copy to the caretaker and keep one copy for your file (Annex 11).
- Note the transfer to Stabilisation Centre on the OTP card
- Inform the community outreach worker of child's transfer to Stabilisation Centre.

**6.5 Enrolment in OTP**

Children may be enrolled directly into the OTP if they have appetite (pass the appetite test) and have no medical complications. Explain the purpose of the programme to the caretaker.



## STEP 6. Medical treatment in OTP

Routine medicines are given to all children enrolled in OTP. These are:

- Antibiotic
- Measles vaccination
- Anti-malarial (if symptomatic)
- Dewormer
- Iron/folic acid (where there is mild/moderate anaemia only)

### Details are given in (Annex 6).

The following should be taken into consideration:

- The health care provider should give the first dose of amoxicillin at admission to the OTP to ensure it is taken. A clear explanation should be provided to the caretaker on how to continue treatment of antibiotics at home. The caretaker should then repeat the instructions back to the health care provider to make sure they have been well understood.
- All children should be referred for other routine childhood vaccinations. Check the child's vaccination card.
- Additional medicines may be prescribed to treat other medical problems for children with severe acute malnutrition in OTP. (Annex 20).
- Children who have been transferred from the Stabilisation Centre should not receive routine medications that have already been administered in the Stabilisation Centre. Check the OTP card and transfer slip from the Stabilisation Centre for details of the medications that have already been given.

## STEP 7 Nutritional treatment in OTP

- Provide RUTF ration by weight using the RUTF protocol (Annex 17).
- Explain how RUTF should be used using the key messages (Annex 15). Only RUTF should be consumed for the first three weeks of treatment. Thereafter, other family foods may be added once the child has breastfed (where appropriate) and consumed the RUTE.

## STEP 4: Appetite Test

Nutritional treatment in OTP is given through ready to use therapeutic food (RUTF). RUTF is a pre-packaged energy and nutrient dense paste which is specifically designed for the treatment of SAM. RUTF provides approximately 545 Kcal per 100g.

The amount of RUTF given to a child is based on his/her weight on the day of the visit (175-200 kcal/kg/day). Key information messages are given to the caretakers of children admitted to OTP on how to use the RUTF including the importance of regular feeding in small amounts and the need for plenty of clean drinking water (2 cups per packet of RUTF). The caretaker should repeat back the key messages to the health care provider to make sure the messages have been understood.

## CAUTION

Ready to use therapeutic food (RUTF) is an energy and nutrient dense paste especially designed for the rehabilitation of severe acute malnutrition. This should not be confused with other pastes packaged in sachets or pots which look like RUTF. Other nutrient dense pastes such as ready to use food supplementary food (RUSF or 'Acha Mum') are designed for the treatment of moderate acute malnutrition. These products MUST NOT be used instead of RUTF for the treatment of SAM.



**STEP 8: Other admission procedures**

- Instruct the caretaker that she/he will need to bring the child back to the health facility every week (or two weeks) for medical check-ups, to be weighed to see that the child is getting better and to get the RUTF rations.
- Advise the caretaker to return to the OTP clinic immediately if the child refuses to eat RUTF or becomes ill.
- Give medicines according to routine drug protocol (Annex 16). See medical treatment section.
- Check immunisation status. If required immunisations have not been given, refer the child for immediate immunisation.
- Tell the caretaker when she/he should come back for the next OTP visit (date and time).
- Make it clear that the child should be brought back to the health facility at any time if the child's condition deteriorates.
- Conduct IYCF and maternal nutrition support (see section 5.6).

**STEP 9. OTP follow-up visits**

Children should attend the OTP every week or two weeks to have a medical check-up and to receive their supply of RUTF. The health worker at the health facility should record the information on the OTP card during each follow up visit.

- Take MUAC, weight and assess for oedema at every visit and record this on the OTP card.
- Appetite test is done at every follow up visit.
- Conduct the medical check-up and medical/dietary history (illness in the previous week/two weeks and RUTF or other food eaten) at every follow up visit. Record this on the OTP card.
- Complete doses of routine medicine according to routine medical protocols.
- Any additional medications given during follow up visits should be noted on the OTP card.
- Follow the Action Protocol to determine if there are complications and there is a need to transfer to the Stabilisation Centre
- Determine if follow up by a community outreach worker is needed at home. Children should be followed up at home if:
  - Child has lost weight on two consecutive visits.
  - Weight or medical condition does not improve within 3 weeks
  - Child was initially treated in a Stabilisation Centre.
  - The child has been absent or defaulted from the programme
- Provide RUTF ration
- If there is an issue with attendance due to distance or other reasons, it might be necessary to ask the caretaker to come to OTP every two weeks (if this is the case, amount of RUTF given needs to be adjusted).
- Complete the OTP card.





### Follow-up in the community

Follow-up in the community is essential to ensuring quality care and effectiveness.

**Absentees:** If a child is transferred from OTP to the Stabilisation Centre and does not return to OTP after one or two weeks, community health workers and community volunteers should find out what has happened to the child.

**Defaulters** should be followed up by community health workers and volunteers. The caretaker should be encouraged to take the child back to the programme for treatment. If the child does not return the reason for default should be investigated by community health workers and volunteers and the information reported back to the health care provider and recorded on the card. This may help health care providers address the problem of the individual child but also to determine whether changes need to be made to the programme. For example if several children repeatedly default due to distance, it might make sense to operate the OTP every two weeks rather than weekly.

**Deaths:** If a child dies while enrolled in the OTP, information on their symptoms and a suspected diagnosis can be collected by community health workers and volunteers. This can help identify problems with treatment and the use of the action protocol.

**Children who are not responding and need follow up:** When children are not responding well in the programme and follow up visits are needed according to the Action Protocol (for instance the child has lost weight), community health workers and volunteers should feed-back information regarding the possible reasons for non-recovery to the health care provider. This information can be used to make decisions about whether to transfer the child.

## 6.6 IYCF and maternal nutrition in OTP

When a child is first admitted to the OTP, the key messages about how to give RUTF, routine medicines and basic hygiene messages should be clearly understood. No other messages are given at this time to avoid overloading the caretaker with too much information however, encouragement can be given to mothers who are breast feeding and any difficulties discussed. During follow-up sessions, key messages through individual counseling and group activities can be conveyed.

### Infant and young child feeding

IYCF support can be conducted in a designated 'breastfeeding corner' that is apart from other OTP activities. It should offer privacy and be spacious and comfortable. IYCF sessions can run while the OTP is running by a designated IYCF person and mothers can be taken aside to the breastfeeding corner. The actions below can be undertaken at each stage of progression through the OTP and key IYCF messages are provided in Annex 2. On some weeks the IYCF designated person may decide that a group session would be more beneficial. Details of the sessions can be recorded using Annex 5.



Figure 5. Integration of IYCF into OTP

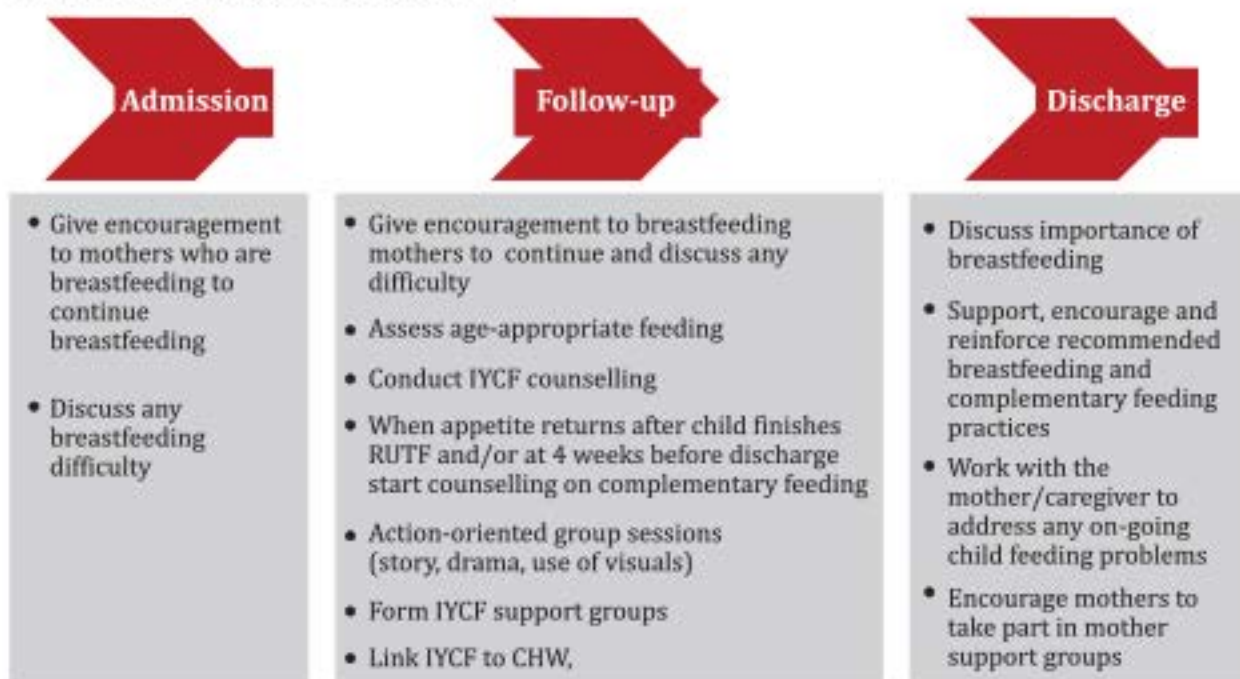


Figure 6. Integration of IYCF into OTP

**Maternal nutrition**

Simple messages maternal nutrition and also be conveyed at the OTP through counseling or group sessions (Annex 2).

**6.7 Exit criteria from OTP**

Category	Criteria
<b>Recovered</b>	<b>Where there is no TSFP</b> MUAC $\geq$ 11.5cm Clinically well No oedema for two consecutive visits Minimum stay of 8 weeks in the programme
	<b>Where there is TSFP</b> MUAC $\geq$ 11.5cm for two consecutive visits Clinically well No oedema for two consecutive visits
<b>Defaulted</b>	Absent for 3 consecutive visits (OTP is every week) Absent for 2 consecutive visits (OTP is every two weeks)
<b>Died</b>	Died during time registered in OTP
<b>Not recovered*</b>	Has not reached exit criteria within 4 months.
<b>Medical transfer</b>	Child is referred for medical treatment
<b>Transfer to SC</b>	Child has developed complications and requires inpatient care
<b>Other reasons for exit</b>	
<b>Other</b>	e.g. Move to another OTP site

Table 11. Exit criteria from OTP



\*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 a Stabilisation Centre according to the Action Protocol. Children who have not met the exit criteria after 3 months should be referred for medical attention.

#### 6.8 Exit procedure

- Explain to the caretaker that the child is recovered (or if not recovered why her/she is being discharged).
- Where there is a TSFP, children discharged from OTP are referred to it. Explain to the mother/caretaker that the child will remain in TSFP for at least 2 months. Provide a referral slip to TSFP if needed.
- Where there is no TSFP, refer to other ongoing community health and nutrition programs and health education and communication interventions (IEC).
- Children who have not recovered (not met the exit criteria) after four months in the programme should be sent to the TSFP and/or other support programmes. N.B. children who do not gain weight for 5 consecutive weeks will have been referred to the Stabilisation centre as per the Action Protocol.
- Note the final outcome on the OTP card
- Advise the caretaker to take the child to the nearest OTP or health facility if the child refuses to eat or has any of the following:
  - High fever
  - Frequent watery stools with blood or diarrhoea lasting more than 4 days
  - Difficult or fast breathing
  - Vomiting
  - Development of oedema
- Follow the IYCF discharge actions.
- Ensure the caretaker understands how to use any medications that have been given / prescribed.





# 7. INPATIENT CARE IN A STABILISATION CENTRE (6-59 MONTHS)

## 7.1 The purpose of the Stabilisation Centre

### Children 6-59 months

- treatment for severely acutely malnourished children who do not have an appetite and/or have medical complications.
- purpose is to stabilize their condition

### Infants less than 6 months

- Infants 1-6 months who are severely acutely malnourished or are unable to breast-feed also require specialised treatment in inpatient care.
- Neonates who are visibly wasted, failing to gain weight or unable to breast feed should be referred to the paediatric ward

## 7.2 Screening and referral to the Stabilisation Centre

Children may arrive at Stabilisation Centre through:

- Transfers from OTP
- Referrals by health care providers e.g. at health facility or hospital level
- Child is brought directly to the Stabilisation Centre by the caretaker

## 7.3 Basic requirements for a Stabilisation Centre

WHO is qualified to run a Stabilisation Centre: The staff should include the following:

- Trained staff with the ability to treat the medical complications.
- Assistant staff – these should provide 24 hour cover and should have the necessary skills to be able to take vital signs, administer the appropriate medication and monitor the intake of therapeutic milk.
- Staff responsible for preparing milk formula and for keeping the facility clean (can be assistant staff depending on workload).

WHERE: A Stabilisation Centre is located where inpatient capacity is available, usually a district hospital or health facility where:

- Children can stay for 24 hours a day
- The appropriately skilled personnel are available

Cleanliness and hygiene are important as these children are particularly vulnerable. The provision of clean water is also crucial. The Stabilisation Centre must have facilities to prepare therapeutic milk on site.



**WHEN:** Children stay in the Stabilisation Centre until the medical complications are treated and they have re-gained appetite. On average this is 4-7 days.

## 7.4 Basic supplies and equipment

Basic equipment	Basic supplies	Protocols and reference sheets
<ul style="list-style-type: none"> <li>▪ Weighing scales</li> <li>▪ Infant scales (20g accuracy)</li> <li>▪ Height/length board (for infants &lt; 6 months)</li> <li>▪ MUAC tapes</li> <li>▪ Weight/Height tables (for infants &lt; 6 months)</li> <li>▪ Calculator</li> <li>▪ Clean water for drinking</li> <li>▪ Water and soap for hand-washing</li> <li>▪ Kitchen equipment to prepare feeds including a blender*</li> <li>▪ Cleaning products</li> <li>▪ Jugs and cups for therapeutic milk</li> <li>▪ Beds and bedding(including blankets)</li> <li>▪ Mosquito nets (in malarial areas)*</li> <li>▪ SST tools</li> <li>▪ Tools for senso-neural stimulation of the recovering children e.g. Recreational tools/toys, Television, Play area</li> </ul>	<ul style="list-style-type: none"> <li>▪ SC card</li> <li>▪ Transfer slips from iSC to OTP</li> <li>▪ List of OTP sites in catchment area</li> <li>▪ Essential medicines and medical equipment</li> <li>▪ Nutritional products for inpatient care (F75, F100 )</li> <li>▪ RUTF</li> <li>▪ ReSoMal (for rehydration)</li> </ul>	<p>Annex 3: Anthropometric measurement techniques</p> <p>Annex 17: RUTF ration</p> <p>Annex 18: Iron and Folic acid doses</p> <p>Annex 19: Malaria protocol</p> <p>Annex 22: History and examination form</p> <p>Annex 23: SC card</p> <p>Annex 24: Routine medicines for inpatient care</p> <p>Annex 25: Treatment of Complications</p> <p>Annex 26: Amount of F75 and F100</p> <p>Annex 27: Recipes for F75 and F100</p> <p>Annex 11: Transfer and referral slip</p>

**Table 12. Basic equipment and supplies for Stabilisation Centre**

\*In a government-led programme these items may not be available due to resources



## 7.5 Admission criteria

Category	Criteria
Children 6-59 months	Bilateral pitting oedema +++
	Marasmic-Kwashiorkor MUAC <11.5cm with any grade of oedema
	MUAC <11.5cm or bilateral oedema + / ++ <b>WITH any of the following complications</b> <ul style="list-style-type: none"> <li>○ Anorexia, no appetite for RUTF</li> <li>○ Vomits everything</li> <li>○ Hypothermia <math>\leq 95.9^{\circ}\text{F}</math></li> <li>○ Fever <math>\geq 101.3^{\circ}\text{F}</math></li> <li>○ Severe pneumonia</li> <li>○ Severe dehydration based on history of diarrhoea, vomiting, fever or sweating</li> <li>○ Severe anaemia</li> <li>○ Not alert (very weak, lethargic, unconscious, fits or convulsions)</li> <li>○ Conditions requiring IV infusion or NG tube feeding</li> </ul>
Infants <6 months (see section 8)	<b>Any of the following:</b> <ul style="list-style-type: none"> <li>○ A severe wasting (weight-for-length less than -3 Z-score) for infants 45cms or more</li> <li>○ visible severe thinness for infants less than 45cms</li> <li>○ bilateral pitting oedema</li> <li>○ any serious clinical condition or medical complication as outlined for infants more than 6 months of age with severe acute malnutrition.</li> <li>○ Recent weight loss or failure to gain weight.</li> <li>○ Ineffective feeding (attachment, positioning and suckling) directly observed for 15-20 minutes, ideally in a supervised separated area.</li> <li>○ Any medical or social issue needing more detailed assessment or intensive support (e.g. disability, depression of caretaker, or other adverse social circumstances).</li> </ul>
Relapse	Children previously discharged from the SC but meets admission criteria to the SC again within two months
Relapse	Children previously discharged from the SC but meets admission criteria to the SC again within two months
<b>Other reasons for enrolment to SC</b>	
Return after default	Children who return within two months after default (away from SC for 2 consecutive days) if they meet the admission criteria
Transfer from OTP	The child has deteriorated whilst receiving treatment in the OTP
Other	

**Table 13. Admission criteria to Stabilisation Centre**

\*Weight for length is difficult and in some cases dangerous to take in very small infants. Care should be taken. Suitable MUAC cut offs to identify acutely malnourished infants less than 6 months are currently being explored.





## 7.6 Steps for admission and treatment

### STEP 1: Triage urgent cases

- Identify and treat urgent cases first
- Give sugar water 10% to all children who arrive (2 teaspoons of sugar per 100ml water or 20 teaspoons in one litre of water)

### STEP 2: Measure MUAC, weight, and assess for oedema

- Measure MUAC
- Check for oedema and measure the grade
- Measure weight

Even if measurements have been already taken elsewhere, they should be taken again for confirmation.

### STEP 3: Medical Assessment

- Take a medical history and conduct a physical examination (Annex 22).
- Record results on the SC card (Annex 23).
- If the child meets the criteria for OTP and has appetite and no complications then refer the child to OTP using the transfer slip (Annex 11).

### STEP 4: Admission to Stabilisation Centre

- Explain the situation to the caretaker and make sure he/she consents to stay in the Stabilisation Centre.
- Fill out a SC card.
- Assign a number (use the same number on the transfer slip if child is from OTP).  
Keep the child warm.

### STEP 5: Assess and treat any complications

During the full medical examination, particular attention should be given to assessment of the following conditions which are closely associated with severe acute malnutrition.

- Dehydration
- Septic shock
- Congestive heart failure
- Hypoglycaemia
- Severe Anaemia
- Hypothermia
- Dermatitis of kwashiorkor

#### CAUTION

The routine use of IV fluids is strongly discouraged. IV fluids should only be used to resuscitate severely acutely malnourished children from hypovolaemic collapse (shock). IV fluids should only be used by a skilled health worker who is experienced in the care of severely malnourished children.

**Paediatric doses:** Care should be taken in the calculation of weight related paediatric dosing of medications.



### **STEP 6: Give routine medicine**

#### **See Annex 18**

- Routine medicines are given to all children admitted to the SC if they have not already been given in OTP
- Malaria treatment given if symptomatic/tested (Annex 19).

### **STEP 7: Start nutritional treatment with F75**

Most children with SAM who fulfill the criteria for inpatient care have infections, impaired liver and intestinal function, and problems related to imbalance of electrolytes when first enrolled. They are unable to tolerate the usual amounts of dietary protein, fat and sodium. It is important to begin feeding these children with a diet that is low in these nutrients.

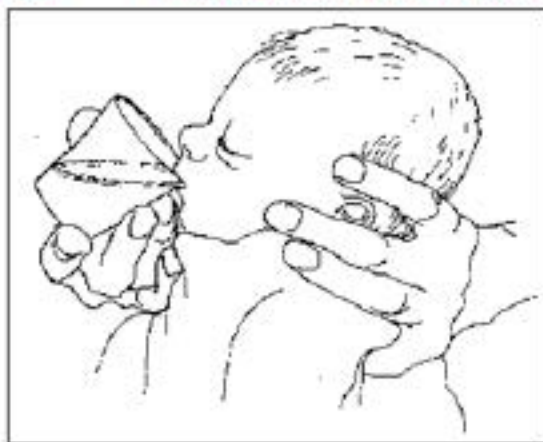
F75 therapeutic milk is a product that has been especially designed for use with the treatment of complicated cases of severe acute malnutrition. Energy density of F75 is 75kcal/100ml (this is equivalent to 100kcal/bodyweight/day)

- F75 is given at regular intervals throughout the day (135ml/kg/day). Depending on the capacity of the Stabilisation Centre, this should be eight times a day at three hour intervals over 24 hours or five to six feeds at regular intervals throughout the day.
- Amounts of F75 to give are shown in (Annex 26).
- Use pre-packaged commercially available F75 whenever possible. Where this is not available, F75 can be prepared locally. Recipes for locally prepared F75 can be found in (Annex 28).
- If the child is breastfed, encourage the mother to continue breastfeeding. Breastfed children should be offered breast-milk before giving F75 and always on demand.

#### **Preparation of commercially prepared F75**

- Add one packet (410g) of F75 to two litres of boiled slightly warm water and mix.
- Where a few children are being treated use the red scoop in the packet (20ml of water per one red scoop).

### **7.7 Feeding techniques in the Stabilisation Centre**



**Figure 7. Feeding a child with a cup**

Cup and spoon feeding: Muscle weakness and slow swallowing in children with SAM means aspiration and pneumonia are common.

The child should sit on the caretaker's lap against her/his chest. F75 should be given by cup. Bottles should NEVER be used. The child should not be force fed. Other food should not be given and this must be clearly communicated to caretakers. Giving other food can be dangerous.





**Communication with caretakers:** It is important to communicate clearly with caretakers so that they fully understand the treatment and how to feed their children. Caretakers may be anxious about the child. Caretakers should be engaged as much as possible in the care of the children. Meal times should be sociable so that caretakers can talk to and support each other. Nurses and assistants should correct any faulty feeding techniques. Meals for caretakers should be provided in a separate area if possible.

**Naso-gastric tube feeding:** Naso-gastric tube feeding (NGT) is used when the child is not taking sufficient diet by mouth. This is defined as intake less than 75% of the prescribed diet of 100 Kcal / kg / day. The reasons for use of an NG tube are:

- Taking less than 75% of the prescribed diet per 24 hours
- Pneumonia with rapid respiration rate
- Painful lesions of the mouth
- Cleft palate or other physical deformity
- Disturbances of consciousness

**F75 by mouth should be tried patiently before use of NGT. The use of the NGT should not normally exceed 3 days**

## 7.8 Monitoring the condition of the child

Children who require inpatient care can deteriorate quickly. It is essential to monitor them closely so that any deterioration in their clinical condition can be picked up rapidly. Ensure that all the following information is completed on the SC card.

Measurements to be taken <b>AT EACH FEED</b>	Measurements to be taken <b>TWICE DAILY</b>	Measurements to be taken and recorded <b>ONCE DAILY</b>
<ul style="list-style-type: none"> <li>▪ Amount of F75 feed the child takes</li> <li>▪ Any occurrence of vomiting / regurgitation of the feed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Body temperature</li> <li>▪ Respiration rate</li> <li>▪ Pulse</li> </ul>	<ul style="list-style-type: none"> <li>▪ Weight</li> <li>▪ Oedema (grade assessed daily)</li> <li>▪ Frequency and type of stools</li> <li>▪ Amount and frequency of vomiting</li> <li>▪ Dehydration</li> <li>▪ Respiration/chest drawing in</li> <li>▪ Cough</li> <li>▪ Liver size</li> <li>▪ Extremities</li> <li>▪ Palmar pallor</li> </ul>

**Table 14. Monitoring the child in the Stabilisation Centre**

## 7.9 Transition to RUTF

Children can start on RUTF when: Any complication has been treated, oedema has resolved or decreased to at least 1+ and the child begins to have an appetite.

- If the child initially refuses RUTF, continue to offer every day (without forcing) until it is accepted. Poor appetite can be an indication of complications.
- It may take a few days to develop an appetite for RUTF.
- Give RUTF according to the weight of the child (Annex 17). Plenty of clean water should





be given to the child to drink. Breast-fed children should be always offered breast milk before RUTF.

- The child should be able to take at least 75% of RUTF (according to weight) for 1-2 days before he/she is eligible for discharge from the Stabilisation Centre and transferred to OTP.<sup>3</sup>

In some instances the child takes time to tolerate the paste texture of RUTF. If there are no signs of complications, any oedema has resolved and the child begins to have an appetite the child may start on F100

### 7.10 Failure to respond to treatment

If a child is failing to respond, the underlying causes must be investigated and addressed appropriately and recorded on the SC card.

underlying cause may be associated with the treatment facility or a specific problem with the individual child. Failure to respond can be defined as:

- Failure to regain appetite by day 4 after admission
- Failure to start to lose oedema by day 4 after admission
- Oedema is still present at day 10 after admission
- Failure to gain more than 5g/kg/d by day 10

The common causes of failure to respond to treatment in inpatient care are shown below:

Problems with treatment facility	Problems with individual children
<ul style="list-style-type: none"> <li>• Poor environment for malnourished children</li> <li>• Lack of adherence to treatment protocols for SAM</li> <li>• Failure to treat malnourished children in a separate area</li> <li>• Failure to complete the individual treatment card correctly, resulting in gaps in data for monitoring the child's progress</li> <li>• Insufficient staff (particularly at night) or inadequately trained staff</li> <li>• Inadequate supervision and constant rotation of staff in treatment facility</li> <li>• Inaccurate weighing machines</li> <li>• Food prepared or given incorrectly</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient feeds given Vitamin and mineral deficiencies</li> <li>• Malabsorption of food</li> <li>• Psychological trauma (particularly in refugee situations and families living with HIV)</li> <li>• Rumination (regurgitation and rechewing of food)</li> <li>• Infection, especially: diarrhoea (amaebiasis, giardiasis, dysentery), pneumonia, TB, urinary infection/otitis media, malaria, HIV, schistosomiasis, kalazar/leishmaniasis, hepatitis/cirrhosis</li> <li>• Other serious underlying disease: congenital abnormalities (e.g., Down's syndrome), neurological damage (e.g., cerebral palsy), inborn errors of metabolism</li> </ul>

**Table 15. Common reasons for failing to respond**

<sup>3</sup> In some instances the child takes time to tolerate the paste texture of RUTF. If there are no signs of complications, any oedema has resolved and the child begins to have an appetite the child may start on F100 while continuing to offer RUTF. As soon as the child accepts RUTF, they should only be given that and the F100 should stop.



### 7.11 IYCF and maternal nutrition in the Stabilisation Centre

Mothers/caretakers will spend 24 hours a day in the Stabilisation Centre. This provides a good opportunity for mothers and caretakers to support each other and for health care providers and assistants to determine and address some of the reasons why the child became severely malnourished and to prevent this from re-occurring.

During a child's stay in the stabilisation centre, the aim is to support breastfeeding for those children that are breast-fed. As the mother stays at the facility, it is an opportunity to engage her with key IYCF messages (Annex 2). Key messages on maternal nutrition can also be conveyed (Annex 2).

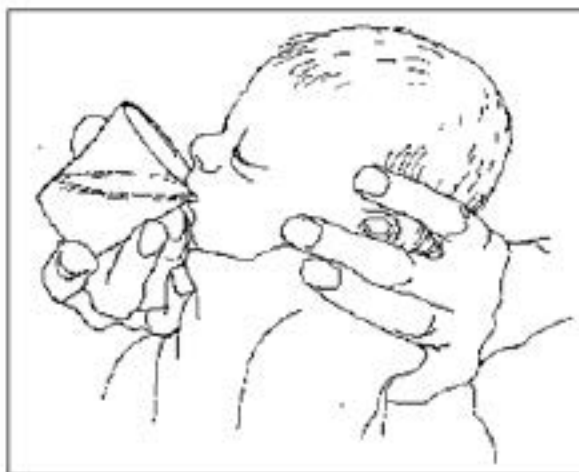


Table 15. Common reasons for failing to respond

### 7.12 Household Hygiene Actions

Simple hygiene messages on hygiene and also be conveyed through counseling or group sessions. These messages can focus on:

- Treatment and safe storage of drinking water
- Handwashing with soap or ash at critical times: after defaecation, after handling children's faeces, before preparing food, before feeding children, before eating
- Safe disposal of faeces
- Proper storage and handling of food to prevent contamination

Messages around handwashing can be practiced whilst in the Stabilisation Centre.

### 7.13 Play

Play stimulation can also speed the recovery of the malnourished child. Play therapy is intended to develop language skills and motor activities aided by simple toys. It should take place in a relaxed and stimulating environment. Storytelling and music can also help create a relaxed and stimulating environment.

**7.14 Discharge from the Stabilisation Centre****Discharge criteria from the Stabilisation Centre (children 6-59 months)**

Category	Criteria
Exit to OTP	<ul style="list-style-type: none"><li>There are no medical complications</li><li>Appetite has returned (the child has taken at least 75% of the prescribed RUTF ration for at least 1-2 consecutive days)</li><li>Oedema is resolving and has reduced to 1+</li><li>Weight gain for 2 consecutive days</li></ul>
Died	Child died while in SC
Defaulter	Child is absent from SC for 2 consecutive days
Non recovered	Child that does not reach the discharge criteria after 45 days in SC
Medical transfer	Where the medical condition of the child requires referral out of the SC to another health facility e.g. to referral hospital
Other	

**Table 16. Discharge criteria from Stabilisation Centre****7.15 Discharge procedure**

- Explain to the mother /caretaker that the child will continue treatment in the OTP. If the mother/caretaker has been transferred from OTP, then he/she will continue the treatment at the same OTP. If the child has not been transferred from OTP, inform the caretaker where the OTP is. If possible, inform local community outreach worker so the child can be tracked.
- Complete a transfer slip including relevant details of treatment and drugs given. (Annex 11). Give the top copy to the mother/ caretaker and keep a copy in the file. Complete routine medications. Give de-worming treatment on exit from the
- Stabilisation Centre if not previously received in OTP.
- Give the mother/caretaker enough RUTF to last until the next OTP session. (Annex 17)





## 8. INPATIENT CARE OF INFANTS 1-6 MONTHS

### 6.1 Basic requirements for OTP

Severely malnourished infants under 6 months need special care and should be treated in inpatient care wherever possible.

Neonates are a group that need particular special care and therefore should be referred to the paediatric ward where protocols for neonates will be followed.

The purpose of treatment includes:

- Improving and re-establishing breast feeding where possible in breast-fed infants
- Appropriate therapeutic feeding in non breast-fed infants
- Nutritional, psychological, and medical care for the mothers/caretakers of infants.
- The management of infants <6 months is divided into:
  - Breastfed infants and those where there is prospect of breast feeding
  - Infants who are not breastfed and there is no prospect of breast feeding

### 8.1 Admission criteria

- Severe wasting (weight-for-length less than -3 Z-score) for infants 45cms or more
- Visible severe thinness for infants less than 45cms
- Bilateral pitting oedema
- Any serious clinical condition or medical complication as outlined for infants more than 6 months of age with severe acute malnutrition.
- Recent weight loss or failure to gain weight.
- Ineffective feeding (attachment, positioning and suckling) directly observed for 15-20 minutes, ideally in a supervised separated area.
- Any medical or social issue needing more detailed assessment or intensive support (e.g. disability, depression of caretaker, or other adverse social circumstances).

### Breast-fed infants 1-6 months

Treatment has a different purpose to older children, the aim is not to regain weight but to re-establish full and exclusive breast-feeding to a quality that allows for catch-up on breast milk alone.

### 8.2 Procedure for admission and treatment

#### STEP 1: Take anthropometric measurements

- Measure the weight. Use appropriate scales (with accuracy to at least 20g). Infants should be weighed naked because weight of clothes can make a big difference to the small changes in weights seen in such small infants.
- Measure length if > 45cm. Caution should be used in measuring the length of small infants.

#### STEP 2: Assess breastfeeding positioning, attachment and suckling

- Infants who are too weak to suckle effectively should be admitted to the Stabilisation Centre. Breastfeeding (positioning, attachment and suckling) should be carefully assessed.



### **STEP 3: Admit the infant and mother**

- The infant should be admitted if he/she meets the admission criteria.
- Complete a SC card (Annex 23)
- The mother and the infant should be placed away from other children as infants are particularly vulnerable to cross-infection.
- Keep the infant warm. Put a woollen cap on the infant if possible and place the child on the front of the mother/caretaker with her arms wrapped round the child (skin to skin technique). Wrap the mother and baby in blankets together.
- Give a hot drink given to the mother to increase the heat she makes in her skin to warm her infant.
- Encourage mother-to-mother support such as linking up a mother whose child is recovering and gaining weight with a mother who has just arrived.

### **8.3 Medical treatment**

#### **STEP 4: Treat complications**

Any complications such as hypothermia, hypoglycemia, dehydration, infection, septic shock should be treated. Check carefully to avoid over-treatment, particularly of dehydration, as fluid overload is dangerous. See (Annex 25) for treatment of complications.

#### **STEP 5: Give routine medical treatment**

Give to all infants 1-6 months routine medical treatment. (Annex 28)

### **8.4 Nutritional treatment – supplemental suckling technique**

#### **STEP 6: Provide supplemental suckling for breastfed infants**

The aim of nutritional treatment is to:

- Stimulate breast-feeding.
- Supplement the breast-milk with therapeutic milk until breast milk is sufficient to allow the child to gain weight on breastmilk alone.
- Treatment is based on the Supplemental Suckling Technique (SST). This is a technique that stimulates breast-feeding and allows the infant to take supplemental milk through a tube attached to the breast as well as suckling at the breast.
- It is important to put the child to the breast as often as possible.
- The therapeutic milk used in the SST is **F100 diluted (F100D)**.
- **Infants with oedema should be given F75. When the oedema has resolved switch to F100 dilute.**

#### **CAUTION:**

Use **ONLY** commercially produced F100 which has been diluted. Home prepared milk-based feeds/modified animal milk recipes are not suitable for malnourished infants under 6 months.

Do not use RUTF for infants less than 6 months.

### **8.5 How to give SST feeds to infants**

- On admission immediately give one feed.
- Breast-feed every 3 hours for at least 20 minutes, more often if the child cries or seems to want more.
- 30-60 minutes after offering a normal breast-feed give maintenance amount of F100D
- F100D is given 8 times a day – 135/ml/kg/day is given





- On admission immediately give one feed.
- Breast-feed every 3 hours for at least 20 minutes, more often if the child cries or seems to want more.
- 30-60 minutes after offering a normal breast-feed give maintenance amount of F100D
- F100D is given 8 times a day – 135/ml/kg/day is given
- The feed should provide 100kcal/kg/day
- If the infant is very ill give breast-feeds every two hours.
- If the infant is not able to suckle, give feeds by cup, dropper, syringe, or naso-gastric tube.
- At each feed try the supplementary suckling technique before using other methods, only use these methods if infant is not taking milk by supplementary suckling.

**Table 17. Amount of F100 diluted (by weight) for infants during SST**

Weight (kg)	ml of diluted F100/feed
<=1.2	25
1.3-1.5	30
1.6-1.7	35
1.8-2.1	40
2.2-2.4	45
2.5-2.7	50
2.8-2.9	55
3.0-3.4	60
3.5-3.9	65
4.0-4.4	70

### **Preparation of F100 diluted**

Add one packet (456g) of F100 to 2.7ml of water (instead of the standard 2 litres) to make F100 dilute.

### **For small quantities of F100 dilute**

Use 100 ml of F100 already prepared and add 35 ml of water (gives 135ml).

## **8.6 The Supplementary Suckling Technique**

Supplemental milk (F100 diluted) is given using a tube the same size as an n°8 naso-gastric tube (if this is not available use the next best tube). The infant suckles and stimulates the breast, and at the same time draws the supplement through the tube. Mothers should sit in a quiet place and should be given support. Another mother who is using the technique successfully is the best person to demonstrate the technique to others.





Figure 8. The supplemental suckling technique

- Cut a small hole in the side of the tube, near the end of the part that goes into the infant's mouth. This helps the flow of milk.
- F100 diluted is put in a cup. The end of the tube is put in the cup
- The tip of the tube is put on the breast at the nipple and the infant is offered the breast in the normal way so that the infant attaches properly. Some mothers find it better to tape the tube to the breast.
- When the infant suckles on the breast, with the tube in his mouth, the milk from the cup is sucked up through the tube.
- At first an assistant may need to help the mother by holding the cup and the tube in place.

- The assistant should encourage the mother. After some time, mothers usually manage to hold the cup and tube without assistance.
- At first, the cup should be placed at about 5 to 10cm below the level of the nipple so the milk can be taken with little effort from a weak infant. As the infant becomes stronger the cup should be lowered progressively to about 30cm below the breast. Raising or lowering the cup determines the ease with which the infant gets the supplement. For very weak infants it can be at the level of the infant's mouth. If it is above this level there is danger of aspiration. It may take one or two days for the infant to get used of the tube and the taste of the mixture of milks, but it is important to persevere
- After feeding, the tube is flushed through with clean water using a syringe and then spun rapidly to remove the water. If possible the tube can then be left exposed to direct sunlight.

### 8.7 Monitoring the infant

The progress of the child is monitored by the daily weight:

- Weigh the baby daily with a graduated scale to within 20g.
- **The quantity of feed is NOT increased as the infant starts to gain weight.** If there is an increase in weight this is due to increased quantity of breast milk
- If after a few days the child does not finish all the supplemental food but continues to gain weight, it means the breast milk is increasing and the child has had enough.
- If the child loses weight over 3 consecutive days, yet seems hungry and is taking all the F100D, add 5mls to each feed

#### When the baby is gaining weight at 20g/day\*

- Decrease the quantity of F100 diluted to one half of the maintenance intake
- If the weight gain is maintained (10g/day) for 2 consecutive days then stop the supplement and continue on breast milk alone.
- If the weight gain is not maintained when the F100D is cut in half, change the amount given to 75% of the maintenance amount for 2 days and then reduce it again if weight gain is maintained
- If possible keep the child in the Stabilisation Centre for 2 days on breast milk alone to make sure he/she continues to gain weight.

\*After any oedema has resolved and the child is on F100D



## 8.8 Care of mothers

The rehabilitation of the baby is related to the well-being of the mother, it is therefore essential to care for the mother. Mothers and babies should sit in a separate room or in a corner where they can support each other. Health care providers and assistants should communicate clearly with mothers regarding the care and treatment of their infants and provide patient and continuous support.

- Check mother's MUAC. MUAC <21.0cm indicates that the mother is acutely malnourished. Acutely malnourished mothers with malnourished infants should be given RUTF (2 sachets/day) if sufficient supplies are available as well as other foods.
- Do not make the mother feel guilty for the state of her child or blame her for giving other foods.
- Strongly reassure the mother that the SST works and that she will get enough milk herself to make her baby better.
- Encourage and teach correct positioning and attachment for breastfeeding.
- Treat any breast infections such as mastitis.
- Be attentive to her and introduce her to the other mothers.
- She should drink at least 2 litres of water per day.
- The mother who is admitted to the Stabilisation Centre with her child should receive Vitamin A: If the child is above 6 weeks give the mother 200,000 IU.
- Micronutrient supplementation should be given to the mother. It is critical that the mother is properly fed during her stay in the Stabilisation Centre with her infant.

## 8.9 IYCF and maternal nutrition in the Stabilisation Centre

As the mother will stay with her child, it is an opportunity to engage her in breastfeeding counseling (see Section 7).

## 8.10 Exit Criteria for infants who are breast-fed

Breast-fed infants less than 6 months being breastfed can be discharged when:

- The infant is gaining weight (10g/day) on breast milk alone after the SST has been used.
- There is no medical problem.
- No oedema

The infant should be transferred to OTP where they can continue to be monitored.

- Complete a transfer slip to OTP (Annex 11)
- The mother and infant should be followed up at home by a community health care provider.

### During the follow up visits:

- Monitor the infant's weight gain and general health
- Assess breastfeeding practice and provide support if needed
- Demonstrate the appropriate use of complementary foods.
- Assess the health and well-being of the mother
- Refer to the health facility if necessary

## Infants 1-6 months who are not breast-fed

## 8.11 Medical treatment

See Annex 28

The same systemic treatment is given to both breast-fed and non-breast-fed infants





### 8.12 Phased nutritional treatment for infants who are not breastfed

When there is no prospect of being breastfed, the malnourished infant should be treated according to the standard protocol with the following modifications.

#### PHASE 1

- Non breastfed wasted infants <6 months can be given F100 diluted.
- Infants with oedema should be given F75.
- **Babies should be fed by cup, dropper or naso-gastric tube. Bottles and teats should NEVER be used.**
- The amounts of F100 diluted to give are shown below.
- Infants should receive feeds at 3 hourly intervals or 2 hourly intervals if the infant is very ill.

#### Monitor the infant in phase 1 as follows:

- Record how much feed the infant takes, whether the infant vomits.
- Body temperature is measured twice per day.
- Assess clinical signs daily
- Take weight daily using scales graduated to 20g. Record and weight loss.
- There will be no weight gain during phase 1.
- Assess oedema daily.

#### Continue to give the full volume of milk until:

- Any oedema has disappeared.
- Appetite has improved.
- When these criteria are met, the infant can progress to transition phase.

#### Transition phase

- During the transition phase only F100 diluted should be given. The volume of feed is increased by approximately 30%.
- The duration of this phase is on average about 4-5 days.
- Continue to monitor the child. Infants should start to gain weight during this phase.

#### Rehabilitation phase

- The volume of feed can be increased by another 30%.
- If the infant is still hungry after having taken all the feed, give more. Increase the feeds by 5 ml per feed.
- Involve the caretaker of the infant. Show the caretaker how to prepare breast milk substitute feeds using infant formula and how to clean utensils carefully. The caretaker should give the feeds under supervision while the infant is still in the Stabilisation Centre so that staff can see that he/she is confident and can prepare and give feeds correctly.
- Continue feeds until the infant gains weight. Once the infant has gained weight for 5 consecutive days begin to introduce breast milk substitute.





**Table 18. Amount of F100 dilute to give to non-breasted infants <6months by weight of infant and phase of treatment**

Weight Kg	Phase 1 ml of F100 diluted per feed	Transition phase ml of F100 diluted per feed	Rehabilitation phase ml of F100 diluted or breast milk substitute per feed
	<b>8 feeds/day</b>	<b>6-8 feeds/day</b>	<b>6-8 feeds/day</b>
< =1.5	30	40	60
1.6-1.8	35	45	70
1.9-2.1	40	55	80
2.1-2.4	45	60	90
2.5-2.7	50	70	100
2.8-2.9	55	75	110
3.0-3.4	60	80	120
3.5-3.9	65	85	130
4.0-4.4	70	90	140

### 8.13 Exit criteria for infants who are not breastfed

Infants <6 months with no prospect of bring breast fed can be discharged from the Stabilisation Centre when:

- There is steady weight gain for 5 consecutive days.
- AND**
- The infant is taking breast milk substitute successfully.
  - The caretaker is able to give feed correctly.

Close follow-up after exit from the Stabilisation Centre is essential for these infants to ensure weight gain is maintained.

- Transfer the caretaker and the infant to OTP so that the infant can be monitored in the OTP. Complete a transfer slip to OTP.
- Follow up visits by community health care providers should continue for 3 months.

#### At each follow-up visit:

- Monitor the infant's weight gain and general health
- Monitor the use of breast milk substitute
- Demonstrate the appropriate use of complementary foods
- Give support care to caretaker of the infant



## 9. MONITORING AND REPORTING

### 9.1 Purpose

The purpose of monitoring and reporting is ultimately to know if the programme is effective but also to ensure the quality of the programme in terms of its acceptability, efficiency, accuracy and appropriateness.

Effectiveness is measured by comparing a set of internationally agreed indicators with minimum standards (SPHERE). Indicator data is collected through a reporting system. Supervision assesses other aspects of the programme such as accuracy and appropriateness. Findings from reporting and monitoring will shape the programme.

#### Information Systems in Pakistan

Although there is government Health Management Information System (HMIS), currently there are no CMAM related indicators within it. Nutrition data is collected through the National Information System. There are two formats within the NIS: NIS and NIS-lite. NIS is more comprehensive and used in resource intensive settings (e.g. by NGOs) while NIS-lite is more appropriate for government use. The reporting requirements in this guideline can be used in both government and NGO settings).

### 9.2 Data flow

The figure below shows the flow of data in Pakistan.

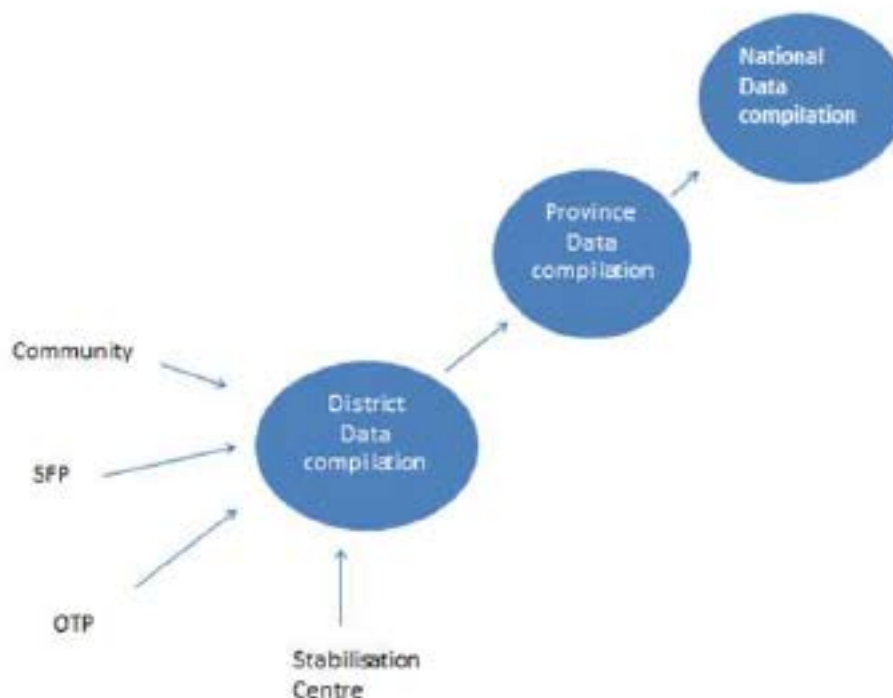


Figure 9. The flow of data in Pakistan



### 9.3 Numbering system

- A registration number is given to each child when the child is first admitted to OTP or SC or TSFP. This number should follow the District Health Information System (DHIS).
- ALL records concerning the child should follow the same numbering system. Returning defaulters who return to the programme within a month retain the same number. Their treatment continues on the same monitoring card.
- Readmissions (meet admission criteria after being discharged as recovered) are given a new number and new card. They are suffering from another episode of malnutrition and therefore require full treatment again.

### 9.4 Data collection

For each CMAM component, certain tools are used to collect the necessary data for each case. Information on all the cases in that particular component can be aggregated into a monthly report. See Annex 29, Annex 30 and Annex 31 for the TSFP, OTP and SC monthly reports.

Type of data	TSFP	OTP	Stabilisation Centre
Individual data	TSFP card	OTP cards	SC cards
Caseload data	Report format	Report format	Report format

N.B. LHWs use a register which should include MUAC

Table 19. Tools used to collect data at TSFP, OTP and SC

The monthly reports detail the basic admission and discharge categories at each site. This is shown in the table below. This data helps determine the number that are entering the programme and why, as well as the proportion of cases that are leaving the programme according to each particular reason.

	TSFP 6-59 and PLW	OTP 6-59 month	Stabilisation Centre 6-59 and 1-6 months
New Admissions	MUAC <12.5cm	MUAC < 11.5 cm	MUAC < 11.5 cm
	MUAC < 21.0 cm	Oedema	Infants < -3 Z scores, wasted, no weight gain etc
	Relapse	Relapse	Relapse
Moved in	Return after defaulting	Return after defaulting	Return after defaulting
	Transfer from OTP or SC	Transfer from SC	Transfer from OTP
	Other	Other	Other
Discharges	Recovered	Recovered	Exit to OTP
	Death	Death	Death
	Defaulter	Defaulter	Defaulter
	Non-recovered	Non-recovered	Non-recovered
	Medical transfer	Medical transfer	Medical transfer
	Transfer to TFP	Transfer to SC	
Moved out	SAM discharges		
	Other	Other	Other

Table 20. Basic admission and discharge categories to be collected at TSFP, OTP and SC





## 9.5 Programme indicators

The data collected through the monthly reports can be used to understand the programme performance.

### Admissions

The number of new admissions should be tracked. New admissions are:

Component	New admission calculation
TSFP	# MUAC < 12.5cm + # MUAC < 21.0 cm + # Relapse + # return after defaulting
OTP	# MUAC < 11.5 cm + # Oedema + # Relapse + # return after defaulting
Stabilisation Centre	# MUAC < 11.5 cm + # Oedema + Relapse + # return after defaulting + # transfer from OTP + # other

**Table 21. Calculating new admissions**

### Minimum standard indicators

Performance can be measure by a minimum set of indicators:

	SAM treatment (SC + OTP)	SC	OTP	TSFP
Cure rate	>75%	>75%	>75%	>75%
Death rate	< 10%	<10%	<3%	< 3%
Default rate	<15%	<15%	<15%	<15%

**Table 22. Sphere minimum standards**

These are measured are follows:

Cure rate: $\frac{\text{no of cures}}{\text{Total discharged}} \times 100$	Death rate: $\frac{\text{no of deaths}}{\text{Total discharged}} \times 100$	Defaulter rate: $\frac{\text{no of defaulters}}{\text{Total discharged}} \times 100$
---	---	---

### Total discharges are:

No of cures + no of defaulters + no of deaths + no of medical transfers + no of non-recovered + no of medical transfer +no. Transfer to TFP

**N.B. Those 'moved out' are not included except in the SC**

### Weight gain and length of stay

Weight gain should be investigated and reported during monitoring/supervisory visits by looking at individuals patient cards. The weight gain per week should be investigated which is easily determined by looking at the weight gain since the last visit (if weekly). The weight gain should be over 200g per week but if it is more than 800g, this is an indication that weights might not be measured properly.

Length of stay in an important indicator of the programme effectiveness since a long length of stay would indicate a problem such as poor adherence to treatment protocols or a high number of absents.

Length of stay : no of days in either SAM treatment or MAM treatment

### Coverage

Coverage is an important indicator of how well a programme is meeting needs. There may be very good quality programme with very few deaths, low default and high recovery rates, but if you are only reaching a low proportion of the children who need treatment, the programme is not having a satisfactory.



Coverage is expressed as a percentage of the acutely malnourished children in the target area who are receiving the appropriate treatment.

It is measured against a minimum standard.

**The Sphere standard for coverage is:**

- > 50% in rural areas, >70 % in urban areas and**
- >90% in camp situations**

Coverage is usually determined by a coverage survey. Coverage surveys should ideally be conducted every 6 months. Coverage surveys can reveal a lot of information about why children do not attend the program, why some may be excluded and possible barriers to access.

A new technique for measuring coverage using ongoing programme data and additional inquiry and information has been developed. This is called the Semi- Quantitative Evaluation of Access and Coverage (SQUEAC). Squeak uses quantitative and qualitative methods to give an accurate estimate of coverage

Simple mechanisms to gauge coverage levels can be used in on a continual basis to monitor the programme. In the absence of more formal coverage techniques, simple mapping can also be done. This will help determine where most of the admissions are coming from and can help determine if more sites should be opened. This will help better understand possible issues in the programme such as high default or low coverage.

### **Feedback to providers and community**

Programme results should be fed-back to field-level CMAM providers so they can be informed how well the programme is running and make any adjustments as necessary. Using community networks, the performance of the programme should be fed-back to the community to enable engagement from them and understanding.

### **9.6 Using reports to improve programme**

If there are high mortality rates or default rates that exceed the minimum standards it is essential to investigate the reasons for this and to make necessary changes to the programme.

Additional information may be gathered from community health workers and community volunteers and through discussions with caretakers of children and other community members.

**High mortality rate:** High mortality rates maybe associated with poor quality of treatment in the Stabilisation Centre or caretaker refusal to be admitted to the Stabilisation Centre. It may be associated with disease outbreaks and/or insufficient coverage so that children are not identified early enough for treatment to be effective. Programmes 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/caretaker's time. If default rate is high consider increasing access and/or moving OTP to every two weeks. In some cases community health workers will have to deliver RUTF to household level. Once children start to gain weight, mothers and caretakers may begin to drop out of the programme. It is therefore important to have strong relationships at the community level to ensure that drop out before treatment is complete is minimized. Occasionally high default may be due to a miscalculation. If the OTP is running every two weeks, ensure the default rates are calculated correctly.





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

**Low coverage:** this is often due to poor community outreach resulting in poor active case-finding and a lack of awareness about the programme within the community and therefore poor self-referral. In addition it is necessary to review potential barriers to uptake of services such as frequency of sessions, unacceptability of the programme, accessibility of sites. Outreach mechanisms need reviewing and changing where necessary and any barriers to uptake addressed.

### 9.7 Supervision

- Responsibility for supervision should be established during the planning stages. Supervisors are responsible for ensuring the programme is running smoothly and overall programme quality. The Supervisor should pick up on errors and correct them as well as address any issues that arise in the programme.
- Supervision visits may be conducted by the District Health Management Team or equivalent and may be part of an integrated supervisory visit. A supervision checklist can be found in (Annex 33).
- Supervisors should be responsible for ensuring cards are filled in correctly. Supervisory visits should review the OTP cards particularly the cards of children who have died, defaulted and those not responding to treatment. The supervisor should ensure admission and discharges are made according to the protocol and treatment protocols are performed correctly. The supervisor should check the action protocol is properly followed so cases are transferred and followed up where appropriate.
- Supervisors should work closely with the health care providers, community health workers and community volunteers at the health facility to ensure any issues in programme delivery, follow up (outreach visits) or in the management of individual children can be identified and followed up. The appropriateness and acceptability of the programme can also be discussed.
- Supervisors and health workers and community health workers and volunteers should have monthly meetings to discuss any programme issues. This should cover the issues below.
  - review the caseload number - whether 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.
  - A review of deaths in OTP and SC to identify any problems.
  - A review of defaulters, children failing to gain weight.
  - A review of transfers to ensure effective tracking between components.
  - Issues in the community that may affect access and uptake
  - Review of monitoring and reporting systems
  - Review of weekly and monthly reports





## GLOSSARY

**Absent** child or PLW is absent for one visit but is not yet a defaulter (see Defaulter)

**Acute malnutrition** also known as 'wasting', acute malnutrition is characterized by a rapid deterioration in nutritional status over a short period of time. It can be measured using the mid-upper arm circumference. There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

**Bilateral Pitting Oedema** – Bilateral pitting oedema, also known as nutritional oedema, kwashiorkor or oedematous malnutrition, is a sign of severe acute malnutrition (SAM). It is defined by bilateral pitting oedema of the feet, verified when thumb pressure applied on top of both feet for 3 seconds leaves a pit (indentation) in the foot after the thumb is lifted. There are different clinical grades of oedema: mild, moderate and severe.

**Blended foods** Mixtures of milled cereals and other ingredients such as pulses, dried skimmed milk and possibly sugar and oil. Blended foods are produced by dry-blending of milled ingredients; toasting or roasting and milling of ingredients; extrusion cooking, which results in a "pre-cooked" food. The final product is milled into a fine powder and fortified with a mineral and vitamin premix and is subject to specific requirements. Examples of blended foods include wheat-soy blend and corn-soy blend.

**Community-based management of acute malnutrition (CMAM)** –refers to the management of acute malnutrition through: 1) inpatient care for children with SAM with complications and infants below 6 months of age with visible SAM in a Stabilisation Centre, 2) outpatient care for children with SAM without complications, and 3) community outreach. Services or programmes for children with moderate acute malnutrition (MAM) may be provided depending on the context. The approach aims to maximize coverage and access of the population to treatment of acute malnutrition.

**Complementary feeding** – The use of age-appropriate, adequate and safe solid or semi-solid food in addition to breast milk or a breast milk substitute. The process starts when breast milk or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant. It is not recommended to provide any solid, semi-solid or soft foods to children less than 6 months of age. The target range for complementary feeding is generally considered to be 6–23 months.

**Cured** child or PLW has recovered and meets discharge criteria

**Defaulter** child or PLW is absent for two consecutive visits

**Exclusive breastfeeding** – An infant receives only breast milk and no other liquids or solids, not even water, with the exception of oral rehydration salts (ORS) or drops or syrups consisting of vitamins, mineral supplements or medicines. UNICEF recommends exclusive breastfeeding for infants aged 0-6 months.

**Infant and young child feeding (IYCF)** – Term used to describe the feeding of infants (less than 12 months old) and young children (12–23 months old). IYCF programmes focus on the protection, promotion and support of exclusive breastfeeding for the first six months, on timely introduction of complementary feeding and on continued breastfeeding for two years or beyond.

**Kwashiorkor** – Clinical form of acute malnutrition characterized by oedema (swelling). Children with kwashiorkor typically have bilateral pitting oedema, reduced fat and muscle tissue, skin lesions (dermatosis) and frequent skin infections, and appear apathetic and lethargic.



**Marasmus** – Clinical form of acute malnutrition characterized by severe weight loss or wasting. Marasmic children are extremely thin and typically have grossly reduced fat and muscle and thin flaccid skin, and are irritable.

**Medical transfer** child is referred for medical treatment

**Non-recovered** – child has not reached discharge criteria within 4 months

**Outpatient therapeutic care programme** – Outpatient care for treatment and management of severe acute malnutrition that connects treatment in the health facility, but does not require admission to the health facility. Treatment is carried out while patients remain at home, and involves intermittent health facility visits and community outreach.

**Ready-to-use supplementary foods** – Specialized ready-to-eat, portable, shelf-stable products, available as pastes, spreads or biscuits, that meet the supplementary nutrient needs of those who are not severely malnourished. They are increasingly used for the management of moderate acute malnutrition.

**Ready-to-use therapeutic foods** – Specialized ready-to-eat, portable, shelf-stable products, available as pastes, spreads or biscuits that are used in a prescribed manner to treat children with severe acute malnutrition.

**Relapse** child or PLW has been discharged cured but return within two months and has deteriorated and now meets the admission criteria.

**Resomal** – Oral rehydration solution for children with severe acute malnutrition.

**Sphere Project or Sphere Standards** - The Sphere Project Humanitarian Charter and Minimum Standards in Disaster Response is a voluntary effort to improve the quality of assistance provided to people affected by disaster and to enhance the accountability of the humanitarian agencies in disaster response. Sphere has established Minimum Standards in Disaster Response (often referred to as Sphere Standards) and indicators to describe the level of disaster assistance to which all people have a right. [www.sphereproject.org](http://www.sphereproject.org)

**Stabilisation centre** – Inpatient care facility established for the treatment of severe acute malnutrition with complications.

**Supplementary suckling** – A technique used to induce lactation by providing therapeutic milk to the infant while he or she is suckling. When suckling, the child gets therapeutic milk from a tube attached to the mother's nipple. Suckling stimulates breastmilk production, which eventually replaces therapeutic milk.

**Targeted supplementary feeding programmes** provide nutritional support to individuals with moderate acute malnutrition.

**Therapeutic feeding programme** – A programme that admits and treats severe acute malnutrition either at the health facility level or on an outpatient basis.

[Source: UNICEF Nutrition glossary. A resource for communicators, April 2012. ENN, AED, FANTA, USAID. Workshop report Integration of CMAM. Washington DC, April 28 –30, 2008]





## ANNEX 1: CMAM REFERRAL FORM

Referral Form	
(circle): OTP SFP SC (child)	
CHILDS /PLW NAME _____	CARETAKER /HUSBAND NAME _____
Village/Union Council _____	
Referred to: _____	
Date: _____	
Referred by: _____	

## ANNEX 2: KEY IYCF AND MATERNAL NUTRITION MESSAGES

Recommended Breastfeeding Practices and Possible Points of Discussion for Counselling

Recommended Breastfeeding Practice	Possible Points of Discussion for Counselling (choose most relevant to situation)
Exclusively breastfeed (no other food or drink or water) for 6 months	<p>Breastmilk is all the infant needs for the first 6 Months</p> <ul style="list-style-type: none"> <li>Do not give anything else to the infant before 6 months, not even water</li> <li>Giving water will fill the infant and cause less suckling; less breastmilk will be produced.</li> </ul>
Breastfeed frequently, day and night	<p>Breastfeed the baby often, at least 8-12 times for a newborn, and 8 or more times after breastfeeding is well-established, day and night, to produce lots of breastmilk</p> <ul style="list-style-type: none"> <li>More suckling (with good attachment) makes more breastmilk.</li> </ul>
Continue breastfeeding for 2 years of age or longer	<p>Breastmilk contributes a significant proportion of energy and nutrients during the complementary feeding period and helps protect babies from illness</p> <ul style="list-style-type: none"> <li>In the first year breastfeed before giving foods to maintain breastmilk supply.</li> </ul>
No feeding bottles	<p>Foods or liquids should be given by a spoon or cup to reduce nipple confusion and the possible introduction of contaminants.</p>





## RECOMMENDED COMPLEMENTARY FEEDING PRACTICE AND POSSIBLE POINTS OF DISCUSSION FOR COUNSELLING

Recommended Complementary Feeding Practice	Possible Points of Discussion for Counselling (choose most relevant to situation)
At six months of age add complementary foods (such as thick porridge 2-3 times a day) to breastfeeds	Give Local Examples of first types of complementary foods.
As baby grows older increase feeding frequency, amount, texture and variety	Gradually increase the frequency, the amount, the texture (thickness/consistency), and the variety of foods.
Give baby 2 to 3 different family foods: staple, legumes, vegetables/fruits, and animal foods at each serving	Try to feed different foods at each serving.
Continue breastfeeding for two years of age or longer	During the first and second years, breastmilk is an important source of nutrients for your baby <ul style="list-style-type: none"><li>• During the first year breastfeed first to maintain breastmilk supply.</li></ul>

Source: ENN, IFE Core Group, IASC. *Integration of IYCF support into CMAM. October 2009*

### Maternal nutrition messages

- ✦ During your pregnancy, eat one extra small meal or “snack” (extra food between meals) each day to provide energy and nutrition for you and your growing baby.
- ✦ During breastfeeding, eat two extra small meals or “snacks” (extra food between meals) each day to provide energy and nutrition for you and your growing baby.
- ✦ You need to eat the best foods available, including milk, fresh fruit and vegetables, meat, fish, eggs, grains, peas and beans.
- ✦ Drink whenever you are thirsty.
- ✦ Attend antenatal care at least 4 times during pregnancy. These check-ups are important for you to learn about your health and how your baby is growing.
- ✦ Adolescent mothers: you need extra care, more food and more rest than an older mother. You need to nourish your own body, which is still growing, as well as your growing baby's.



### ANNEX 3: ANTHROPOMETRIC MEASURE TECHNIQUES

Checking for bilateral pitting oedema



#### Grading of oedema

Grades of Oedema	Definition
Absent	Absent
Grade +	Mild: both feet/ankles
Grade ++	Moderate: both feet, plus lower legs, hands, or lower arms
Grade +++	Severe: generalized oedema including both feet, legs, hands, arms and face

#### Measuring Mid Upper Arm Circumference (MUAC)

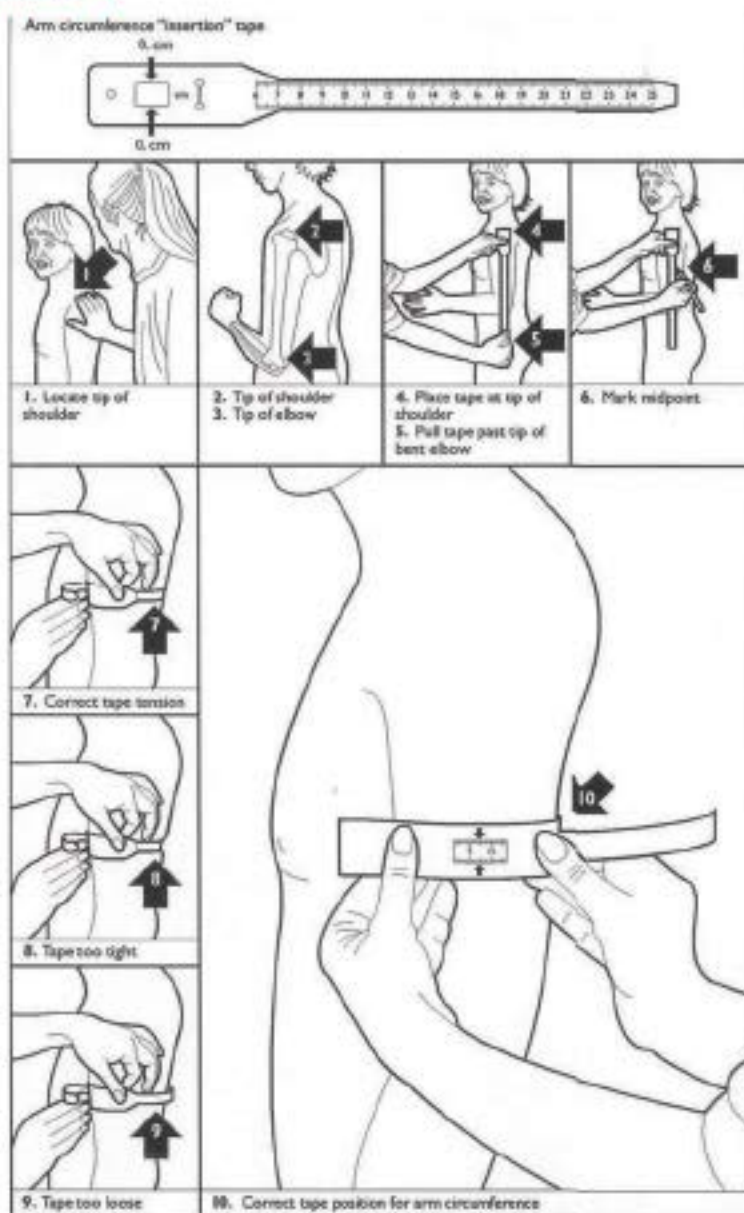
The MUAC is used to see if the child is malnourished or not.

- ✦ 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.
- ✦ Calculate the midpoint of the child's left upper arm by first locating the tip of the child's shoulder (arrows 1 and 2) with your finger tips. Bend the child's elbow to make the right angle (arrow 3). Place the tape at zero, which is indicated by two arrows, on the tip of the shoulder (arrow 4) and pull the tape straight down past the tip of the elbow (arrow 5). Read the number at the tip of the elbow to the nearest centimetre. Divide this number by two to estimate the midpoint. As an alternative, bend the tape up to the middle length to estimate the midpoint. A piece of string can also be used for this purpose. Mark the midpoint with a pen on the arm (arrow 6).



- Straighten the child's arm and wrap the tape around the arm at the midpoint. Make sure the numbers are right side up. Make sure the tape is flat around the skin (arrow 7).
- Inspect the tension of the tape on the child's arm. Make sure the tape has the proper tension (arrow 7) and is not too tight or too loose (arrows 8 and 9). Repeat any step as necessary.
- When the tape is in the correct position on the arm with correct tension, read and call out the measurement to the nearest 0.1 cm (arrow 10).
- 1. Immediately record the measurement.

### Using a MUAC tape



Source: How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children, United Nations, 1985.





## Measuring weight

Place the scale on a flat, hard and even surface with enough light

Explain the whole procedure to the mother or guardian- child should be weighed in minimum clothing.

### FOR CHILDREN LESS THAN 2 YEARS

- + Turn on the scale if digital
- + the scale reading should be stable at 0.00 ( should stop blinking)
- + The mother should stand in the middle of the scale with feet slightly apart and remain still.
- + Press the button after taking the weight of the mother as she stands on the scale
- + The scale reading should be stable at 0.00 ( should stop blinking)
- + With the mother still on the scale, hand the undressed baby to the mother and ask her to remain still
- + Read and note the weight on the scale(the scale will automatically compute the child's weight)
- + Record the child's weight to the nearest 0.1kg



### FOR CHILDREN 2 YEARS AND OLDER

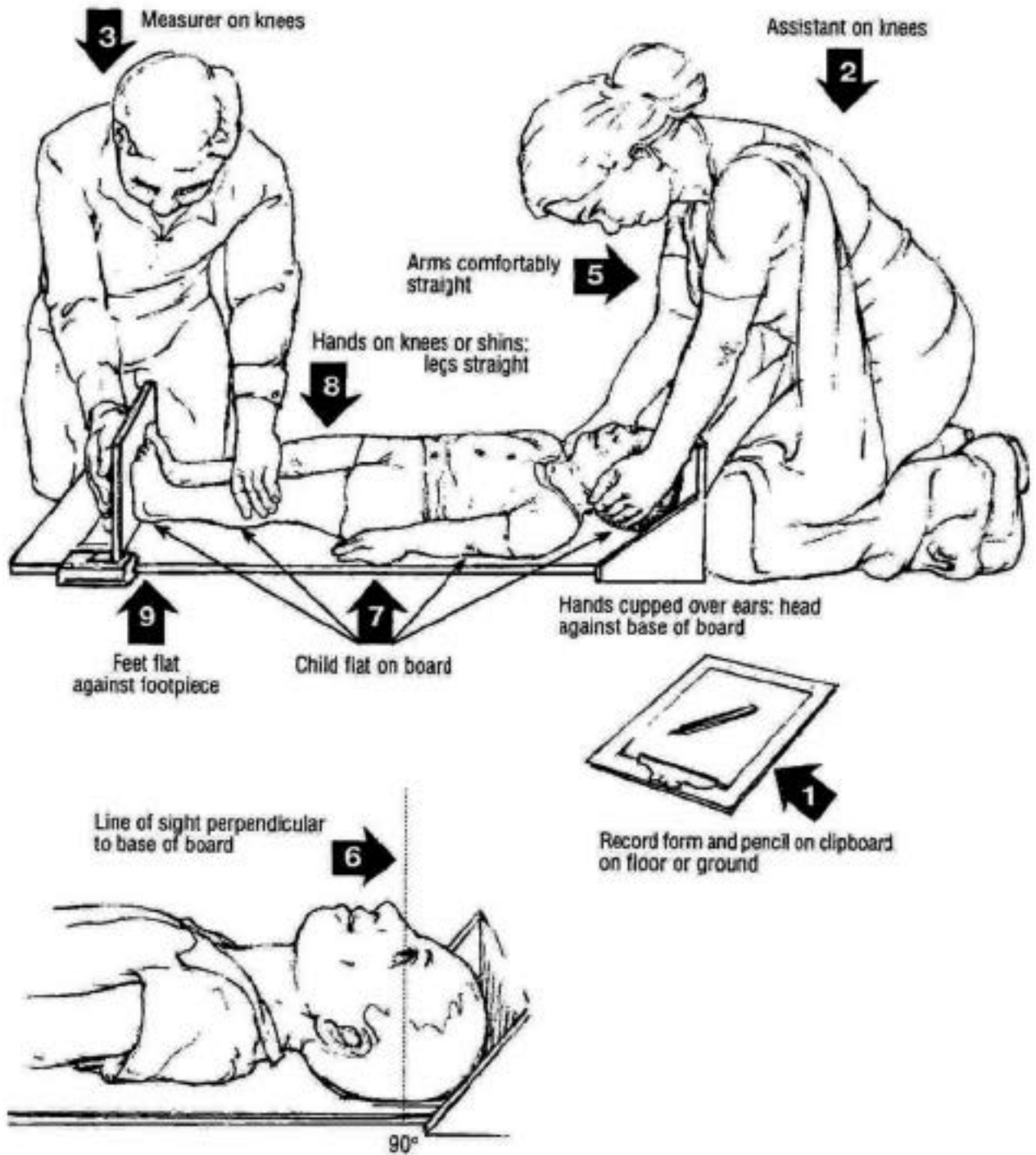
If the child can stand still, weigh the child alone. Ask the mother to help remove shoes and clothing of the child.

- + Turn on the scale if digital/ scale should be stable at 0.00
- + Ask child to stand in the middle of the scale, feet slightly apart and remain still until the weight appears in display
- + Record the child's weight to the nearest 0.1kg.



### Taking length (for infants < 6months only)

For children less than 85 cm, the measuring board is placed on the ground. The child is placed, lying along the middle of the board. The assistant holds the sides of the child's head and positions the head until it firmly touches the fixed headboard with the hair compressed. The measurer places his hands on the child's legs, gently stretches the child and then keeps one hand on the thighs to prevent flexion. While positioning the child's legs, the sliding foot' plate is pushed firmly against the bottom of the child's feet. To read the measure, the foot' plate must be perpendicular to the axis of the board. The height is read to the nearest 0.1 centimetre.





**ANNEX 4: COMMUNITY BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) SCREENING REGISTER (6-59 MONTHS CHILDREN)**

Health Worker Name \_\_\_\_\_ Village \_\_\_\_\_ Health Facility \_\_\_\_\_  
 Tehsil/Taluka \_\_\_\_\_ Union Council \_\_\_\_\_ District \_\_\_\_\_

Date	S#	Name	Father Name	Address with Contact Number	Age (Months)	Sex (M/F)	(MUA C-cm)	Oedema (Y/N)	# of MM Supplementation Provided	Deworming (Y/N)	Remarks





**COMMUNITY BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM) SCREENING REGISTER  
(PREGNANT/LACTATING WOMEN)**

Health Worker Name \_\_\_\_\_ Village \_\_\_\_\_ Health Facility \_\_\_\_\_

Union Council \_\_\_\_\_ Tehsil/Taluka \_\_\_\_\_ District \_\_\_\_\_

Date	S#	Name	Husband Name	Address with Contact Number	Age (Months)	P/L	(MUAC -cm)	# of MM Supplementation Provided	Remarks



## ANNEX 5: CMAM SCREENING REPORT

### 6-59 Months Children & PLW

Week# \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

#### SCREENING CHILDREN (6-59 months)

Health Facility		Total children (6-59 months) Screened	MAM MUAC (11.5-12.4 cm)	SAM MUAC (<11.5cm)	B/D MUAC (>12.5-13.5cm)
	<b>Total</b>				
	Boys				
	Girls				

#### SCREENING PREGNANT/LACTATING WOMEN

Health Facility		PLWs Screened		MUAC (<21cm)	
	<b>Total</b>				
	Pregnant				
	Lactating				

Report prepared by

Name : \_\_\_\_\_

Signature: \_\_\_\_\_



**ANNEX 6: ROUTINE MEDICAL PROTOCOL FOR TSFP**

Drug	When	Age/Weight	Prescription	Dose
<b>MEBENDAZOLE*</b>	At admission	< 1 year	<b>DO NOT GIVE</b>	None
		12-23 months	250 mg	Single dose on second visit
		≥ 2 years	500 mg	
		Pregnant women	<b>DO NOT GIVE</b>	None
<b>MEASLES VACCINATION **</b>	On admission	Lactating women	500 mg	Single dose on second visit
		Children from 6 months	Standard	Once on admission
<b>IRON/FOLIC ACID ***</b>	At admission	2 -59 months	Give if signs of mild/moderate anaemia See iron/folic acid protocol	On admission
		Pregnant and lactating women	Give iron/folate to all pregnant and lactating women See iron/folic acid protocol	
		6-12 months	100 000 IU	Single dose on admission
		≥ 1 year	200 000 IU	
<b>VITAMIN A****</b>	Give only if signs of deficiency of history of measles	Pregnant women	<b>DO NOT GIVE</b>	Single dose on admission
		Lactating women (6 weeks after delivery)	200 000 IU	

\* ALBENDAZOLE: Albendazole may be used instead of Mebendazole: < 1 year: DO NOT GIVE; 12-23 months: 200mg; ≥2 years 400mg

\*\* MEASLES: Refer children to EPI if there are outstanding vaccinations

\*\*\*IRON/FOLIC ACID: Give if there are signs of mild/moderate anaemia. Give to all pregnant and lactating women on admission. For severe anaemia refer to inpatient care.




**ANNEX 7: ENROLLMENT FORM FOR TARGETTED SUPPLEMENTARY FEEDING PROGRAMME (TSFP) - CHILDREN (6-59 MONTHS)**

Date: _____		Nutrition site Name: _____		District: _____		Registration No. _____		TSFP/ _____	
<b>A. Basic Demography</b>									
Name: _____		Father Name: _____		Mother/Carer Name: _____		Mother Alive: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Age (Months): _____		6-23 Months <input type="checkbox"/> 23-59 Months <input type="checkbox"/> Age Month: _____		Gender: _____		Travel Time to site: _____			
Residence: _____		IDP: <input type="checkbox"/> Native: <input type="checkbox"/>							
Admission: _____		New Admission <input type="checkbox"/> Referred from OTP <input type="checkbox"/> Re admission (Relapse) <input type="checkbox"/>		Referred from other SFP Site <input type="checkbox"/> Return after default <input type="checkbox"/> Non Cured <input type="checkbox"/>		Name of Referred SFP Site: _____			
Admission: _____		Referred by: Self <input type="checkbox"/> LHW/Field Team <input type="checkbox"/> By Stabilization Center <input type="checkbox"/> By OTP <input type="checkbox"/> By Parents <input type="checkbox"/> By Community Organization <input type="checkbox"/>							
Immunization Status: _____		Completed <input type="checkbox"/> Partial <input type="checkbox"/> None <input type="checkbox"/> Don't know <input type="checkbox"/>		Remarks: _____					
Date: _____									
<b>B. Admission Anthropometry</b>									
MUAC (cm): _____		Weight (kg): _____		Height/Length (cm): _____		MUAC: _____		Other: _____	
Admission Criteria: _____									
<b>C. Breast Feeding Information</b>									
Currently Breast Feed to Child: Yes <input type="checkbox"/> No <input type="checkbox"/>		Illness in last week: Yes <input type="checkbox"/> No <input type="checkbox"/>		Diarrhea/ARI/Measles/other (Specify): _____					
<b>D. Routine Medication (Admission)</b>									
Drug: _____		Vitamin A <input type="checkbox"/>		Measles Vaccination <input type="checkbox"/>		Measles Vaccination-II <input type="checkbox"/>		Other Medications (Provide Details): _____	
Date: _____		Date: _____							
2nd Visit: _____		Mebendazole <input type="checkbox"/>		Additional Information: _____					
<b>E. Anthropometry at Follow up visits and Ration detail</b>									
Week: _____								Outcome: Exit/Discharge	
Date: _____								Remarks: _____	
MUAC (cm): _____								Minimum length of stay two months and having MUAC > 12.5 CM on two consecutive visits.	
Weight (kg): _____								Have been absent for two consecutive visits if follow up visit is on monthly basis OR absent on three consecutive visits if TSFP follow up visit is after every two weeks	
Medication: _____								Does not meet the exit criteria upon completion of four months in TSFP	
Multi-micronutrient sachet: _____								Died while registered in TSFP	
Any other medicine: _____								Registered case transferred to other nutrition site to complete the treatment	
Acta Mur/Supplementary Purpy in Sachet: _____								Transferred to SC	
Supplementary Ration Provided: _____								Registered case transferred to SC for treatment	
HEB ration for sibling in Packs: _____								Transferred to other TSFP site to complete the treatment	

Name of Nutrition Assistant / LHW \_\_\_\_\_

Signatures: \_\_\_\_\_



**ANNEX 8: ENROLLMENT FORM FOR MALNOURISHED PREGNANT & LACTATING WOMEN (PLW)**

Date: \_\_\_\_\_ Nutrition site Name: \_\_\_\_\_ District: \_\_\_\_\_ Registration No. \_\_\_\_\_ TSFP/ \_\_\_\_\_

**A. Basic Demography**

Name: \_\_\_\_\_ Husband Name: \_\_\_\_\_ Address (village): \_\_\_\_\_

Age (Years): \_\_\_\_\_ Lactating: \_\_\_\_\_ Travel Time to Site on foot: \_\_\_\_\_

Residence: \_\_\_\_\_ Status: \_\_\_\_\_ Pregnant: \_\_\_\_\_ Native: \_\_\_\_\_

Admission: \_\_\_\_\_ Re admission (Relapse): \_\_\_\_\_ New admission: \_\_\_\_\_ LHWs/Field Team: \_\_\_\_\_ Community Organization: \_\_\_\_\_ Referred from Other nutritional sites: \_\_\_\_\_ Name of Referred nutrition Site: \_\_\_\_\_

If new Admission Referred: \_\_\_\_\_ Self: \_\_\_\_\_ LHM's/Field Team: \_\_\_\_\_ Community Organization: \_\_\_\_\_ Currently Breast Feed to Child: Yes  No

Additional information: \_\_\_\_\_

**B. Admission Anthropometry**

MUAC (cm): \_\_\_\_\_

**C. Routine Medication (Admission)**

Vaccination: \_\_\_\_\_

Completed: \_\_\_\_\_ Partial: \_\_\_\_\_ None: \_\_\_\_\_ Don't know: \_\_\_\_\_

**D. Anthropometry at Follow up visits and Ration detail**

Visit No.	1st visit (Admission)	2nd visit	3rd visit	4th visit	5th visit	6th visit	7th visit	8th (Discharge)	Outcome: Exit/Discharge		Remarks
									Cured	Default	
Follow up Date											Minimum length of stay two months and having MUAC > 21 CM on two consecutive visits.
MUAC (cm)											Have been absent for two consecutive visits if follow up visit is on monthly basis or absent on three consecutive visits if TSFP follow up visit is after every two weeks
Medication											Does not meet the exit criteria upon completion of four months in TSFP
Multi-micronutrient Tab or Folic Acid Tab											Died while registered in WFP
Supplementary Ration											Registered cases transferred to other Nutrition site to complete the treatment
Fortified Blended Food (Kg)											
Vegetable Oil (Kg)											

Name of Nutrition Assistant / LHW \_\_\_\_\_ Signatures: \_\_\_\_\_

## ANNEX 9: ACHA MUM RATION CARD

- ماں اپنا دودھ پلانا دو سال تک جاری رکھیں۔
- پختہ بار چاہے اسے ماں کا دودھ پلائیں۔



- چھ ماہ کے بچے کو نرم اور جلد خشم ہونے والی غذا دینا شروع کریں۔
- بچے کے کھانے میں تیل، گھی، بھسن و غیرہ اضافی استعمال کریں۔
- دو کھانا جو گھر کے دیگر افراد کھاتے ہیں دن میں پانچ مرتبہ دیں۔
- بچے کا کھانا تیار کرنے سے پہلے اپنے ہاتھ اچھی طرح دھوئیں اور کھانا پکانے کے لیے صاف سفرے برتن استعمال کریں۔
- بچے کو اس کے بچے برتن میں کھلائیں۔



اساں میں چھ ماہ کا بسو گیا بسوں بچہ اب دودھ کے ساتھ کھانا بھی چاہئے



### صحت اور صفائی

- 1 مقررہ عیار کے مطابق بچوں کو خالص ٹیکوں کا دورن مکمل کر دیا گیا۔
- 2 کھانے سے پہلے اور بعد اور لیٹرین کے استعمال کے بعد ہاتھ صابن سے اچھی طرح دھوئیں۔
- 3 پینے کیلئے صاف پانی استعمال کریں۔

### نوسون اور چھوٹے بچوں کی نشاۃ الثانیہ کے برصا اصول

- 1 بچے کی پیدائش کے ایک گھنٹے کے اندر، بچے کو ماں کا دودھ پلائیں۔
- 2 پہلے چھ ماہ تک بچے کو صرف اور صرف ماں کا دودھ پلائیں۔ ماں کا دودھ بچے کی تمام غذائی ضروریات اور پانی کی طلب کو پورا کرتا ہے، اس لیے بچے کو کوئی اور غذا ہرگز نہ دیں۔
- 3 چھ ماہ کے بعد بچے کی غذائی ضروریات کو پورا کرنے کیلئے ماں کے دودھ کے ساتھ ساتھ نرم غذائی شروع کر دیں۔
- 4 بچے کو پہلے ماں کا دودھ اور اس کے بعد نرم غذا کھلائیں۔
- 5 بچے کو کم سے کم 2 سال تک ماں کا دودھ پلانی رکھیں۔ اگر بچہ بیمار ہو تب بھی ماں کا دودھ پلاتے رہیں۔
- 6 ماں کے دودھ سے بچے کی قوت و صحت بڑھتی ہے اور مختلف قسم کی بیماریوں مثلاً دست اور سانس کی بیماریوں سے محفوظ رہتا ہے۔





## اچھام

### اچھام کیا ہے؟

- ⓐ یہ ۱6 سے 5 سال تک کے بچوں کیلئے ایک صحت بخشی غذائی تیار تیار ہے۔
- ⓑ اس کو پکانے کی ضرورت نہیں اور نہ ہی اس میں ۱۱۱۱۱۱۱۱ پانی لانے کی ضرورت ہے۔
- ⓒ یہ مزہ دار ہے، ۱۱۱۱۱۱۱۱۱ پانی میں اور گھی سے بنا ہے۔ اس میں بچوں کی نشوونما کیلئے روزگار میں اور صحت مند غذائیں شامل ہیں۔
- ⓓ یہ مکمل غذائی غذا ہے۔
- ⓔ ۱6 سے چھوٹے بچوں کے لئے نہیں ہے۔ چھوٹے بچوں کو صرف اور صرف اس کا ۱۱۱۱۱۱۱۱۱ پانا چاہئے۔

### طریقہ استعمال:

- ⓐ اچھام 100 گرام کے بندکیٹ میں ہے جو صرف ایک بچے کے استعمال کے لئے ہے۔
- ⓑ اچھام بچے کو ایک کھول کر پورے کھائیں۔ عام خوراک کے علاوہ اچھام دن میں کسی بھی وقت بچوں کو پانا سکتا ہے۔
- ⓒ عام خوراک کے علاوہ اچھام دن میں کسی بھی وقت بچوں کو پانا سکتا ہے۔
- ⓓ اچھام صرف درمیان ہی دہائی غذائی کمی سے متاثرہ بچوں کے لیے ہے۔
- ⓔ یہ گھر کے باقی افراد کے استعمال کے لیے نہیں۔

### استعمالی تدابیر:

- ⓐ اچھام کو صحت مند سے محفوظ رکھیں اور خشکی بچھریں۔
- ⓑ اچھام کو ایک بندکیٹ میں رکھیں اور استعمال کریں۔
- ⓒ بچے کو اس کے پکٹ سے ہی کھائیں۔

### ضروری تدابیر:

- ⓐ اچھام ایک غذائی خوراک ہے۔ اسے بچے کو روزمرہ خوراک کے ساتھ نہیں کھانا چاہئے۔ اس غذائی غذا کے ساتھ ساتھ بچے کو باقی روزمرہ خوراک بھی دینی چاہئے۔
- ⓑ بچے کی کھانسی یا سانس کی تکلیف ہو تو اسے کھانا نہ کھائیں۔
- ⓒ حالت میں ڈاکٹر سے مشورہ کریں۔

• بچے کو کئی بھی دماغی صحت کیلئے خطرہ نہیں ہے۔

• گھر میں دوسرے بچوں کو بھی کھانا نہ کھائیں۔

اگر بچہ ماں کا دودھ  
نی رہا/رہی ہے تو اسے  
اچھام ماں کے دودھ  
پلانے کے بعد کھلائیں۔



Mother's Name	Child's Name	Sex (M/F)	Measles Vaccine		Date	Age (months)	Address	Distribution Site	Distribution/Week	Date	MUC (cm)	Weight (kg)	RUF RATION (sachets)	Sachet Ration (Sachets)	Sachet Ration (Sachets)	
			Yes	No												

SFP RATION CARD Children









## ANNEX 11: TRANSFER SLIPS

## Transfer slip

Name \_\_\_\_\_ Registration Number: \_\_\_\_\_

Age (for children): \_\_\_\_\_ Address: \_\_\_\_\_

Sex (for children): M / F

Admission information: Weight \_\_\_\_\_ MUAC: \_\_\_\_\_ Oedema (circle) + ++ +++

Transfer from: \_\_\_\_\_ Name of health facility and please circle type) SFP / OTP / IP

Transfer to: \_\_\_\_\_ Name of health facility and please circle type) SFP / OTP / IP

Date of transfer: \_\_\_\_\_

Reason for transfer (circle):

**Transfer to SC:** No appetite Medical Complications : Oedema: No weight gain: Infant < 6 months:**Transfer to OTP:** discharged from SC infant requires follow-up Meets criteria for OTP (MUAC<11.5cm or oedema +, ++):**Transfer to SFP:** Discharged from OTP : Meets criteria for SFP but not OTP : Pregnant and lactating women

Other (please state) \_\_\_\_\_ Treatment given:

Transferred by (name of health care provider) \_\_\_\_\_

**ANNEX 12: SESSION AND PARTICIPANTS INFORMATION SHEET**

Dated \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Session conducted at \_\_\_\_\_

CMAM Site \_\_\_\_\_

Session Topic \_\_\_\_\_

S.#	Name	Gender	Address	New Attendant Y/N
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

**Summary of the day:**

Topic:	No: of Males	No: of Females (all females other than PLWs)	PLWs	Total New attendees
No: of participants (only indicate those new attendees who have received session on this topic for the first time)				



## ANNEX 13: ENROLMENT DETAILS: OUTPATIENT THERAPEUTIC PROGRAMME

Name				OTP Reg.#			Fathers NIC #	
Father/Caregiver				Time to Travel OTP site (Minutes)				
Village/UC				Tehsil/Taluka			Mother Alive Y/N	
Age (months)		Sex	M	F	Date of Admission			
Referred From	Direct from Community		From SFP	From In-patient	Readmission (Relapse)		In-patient Refusal	
	CNV	LHW	Insam	Teacher	FSL/WASH Other Program	DOH Staff	SELF	Peer Mother's
<b>Admission Anthropometry</b>								
Weight (kg)					MUAC (cm)			
Admission Criteria	MUAC < 11.5	Oedema	Infant < 6m	Other (specify)				
<b>History</b>								
Diarrhoea	Yes	No			Stools / Day	1-3	4-5	>5
Vomiting	Yes	No			Passing Urine	Yes	No	
Cough	Yes	No			If oedema, how long swollen?			
Appetite	Good	Poor	None		Breastfeeding	Yes	No	
Dietary history								
Reported Problems								
<b>Clinical Examination</b>								
Check for medical complications:								
<b>Routine Admission Medication</b>								
admission:	Drug	Date	Dosage	Drug	Date	Dosage		
	Vitamin A			Anti Malarial				
	Amoxycillin							
2nd visit:				4th visit	Date			
	Mebendazole			Measles				
<b>Other Medication</b>								
Drug	Date	Dosage		Drug	Date	Dosage		
Nutrition staff Name and Signature								



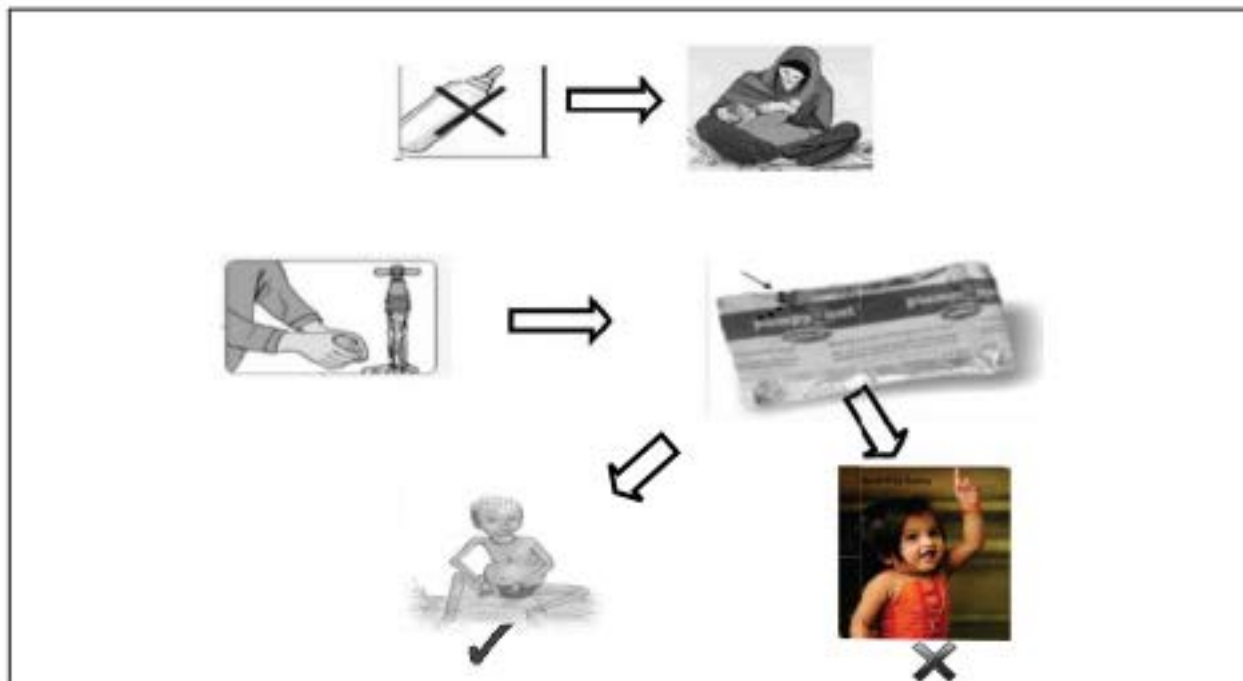


FOLLOW UP: OUTPATIENT THERAPEUTIC PROGRAMME																	
Week	ADM.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Date																	
<b>Anthropometry</b>																	
Weight (kg)																	
MUAC (cm)																	
Oedema (+ ++ +++)																	
<b>History</b>																	
Diarrhoea (# days)																	
Vomiting (# days)																	
Fever (# days)																	
Cough (# days)																	
<b>Physical Examination</b>																	
Temperature (°C/°F)																	
Dehydrated (Y/N)																	
Anaemia (Y/N)																	
Skin Infection (Y/N)																	
RUTF Test Good/Poor/Refused																	
Action Needed (Y/N) (note action below)																	
Other Medication (see front of card)																	
HEB's (NRG-5 or BP-5 in emergency)																	
RUTF (Amount given)																	
Name of Examiner																	
OUTCOME ***																	
***A= absent (more than 2 consecutive visits)    D= default (3 consecutive absences or 2 if OTP is every 2 weeks)    T= transfer to inpatient X= died    DR= discharged recovered    RT= refused transfer to inpatient care    HV= home visit    NC= discharged not recovered																	
<b>** Action Taken (include date)</b>																	
Notes/Remarks: _____																	



### OTP Beneficiary Follow Up Card

OTP Follow Up Card					Father's NIC #: _____		
					Registration#: _____		
SITE:		VILLAGE:			U/C:		
CHILDS NAME				F/Name:			
TARGET WEIGHT (kg)		Age		ADMISSION CRITERIA			
DATE	Oedema	MUAC (cm)	Weight (kg)	RUTF Sachet	HEB Packs	Routine medication	Remarks
Notes:							
Outcomes:	Cured	Died	Defaulter	Non-Responder	Transferred		





## ANNEX 14: ACTION PROTOCOL (OTP)<sup>1</sup>: TO DETERMINE THE NEED FOR TRANSFER TO SC OR OUTREACH VISIT: ON ADMISSION AND ON EACH FOLLOW UP VISIT

SIGN	TRANSFER TO INPATIENT CARE	OUTREACH VISIT
APPETITE	Refuses to eat or has difficulty taking/ swallowing RUTF	Eats less than ¼ of the RUTF by third visit
OEDEMA	Grade +++ Marasmic- Kwashiorkor Increase in oedema or development of oedema	Oedema persisting
VOMITING	Vomits everything	General medical deterioration
TEMPERATURE	Fever >101.3°F Hypothermia <95.9°F	
RESPIRATORY RATE (rr) AND FAST BREATHING (according to IMNCI guidelines for age)	>60 respirations/minute under two months >50 respirations/minute from 2-12 months >40 respirations/minute from 1-5 years >30 respirations/minute for over 5 years Any chest drawing in	
HYDRATION STATUS	Poor urine output Sunken eyes, skin pinch goes back very slowly/slowly Severe dehydration based on history of diarrhoea, vomiting, fever or sweating	
ANAEMIA	Some or severe palmar pallor, difficulty breathing	
SUPERFICIAL INFECTION	Extensive infection requiring IM treatment	
SKIN	Extensive/ open skin lesions/infection	
ALERTNESS	Very weak, lethargic, unconscious Child has had convulsions or is convulsing now	
NEED FOR INFUSION OR NG TUBE	Any condition that requires infusion or NG tube feeding	
WEIGHT CHANGES	Weight loss for 3 consecutive weeks Static weight for 5 consecutive weeks	
RETURN FROM INPATIENT CARE/REFUSES INPATIENT CARE		Return from inpatient care or refuses inpatient care (for two weeks)
MALNOURISHED INFANTS < 6 MONTHS	Require supervised and special treatment	Return from inpatient care or refuses inpatient care (until discharge)
NOT RECOVERING	If not recovered after 3 months refer to hospital for investigation	
ABSENCE		Absent for 2 weeks





### ANNEX 15: KEY MESSAGES FOR OTP

- + RUTF is food and medicine for malnourished children only. It should not be shared
- + Sick children often don't want to eat. Give small regular meals of RUTF and encourage the child to eat often (6 times a day is possible)
- + Your child should have X (note the amount according to weight of child) amount of RUTF a day
- + RUTF is the only food your child needs to recover during the time in OTP.
- + Breastfeed before giving RUTF. Young children should continue to breast feed regularly
- + Always offer plenty of breastmilk or clean water to drink while eating RUTF. RUTF makes children thirsty and your child will need to drink more than normal.
- + Use soap to wash your child's hands before eating if possible.
- + Keep food clean and covered
- + When a child has diarrhea, never stop feeding. Give extra food and extra clean water.
- + **Children with oedema only:** Don't worry if your child looks thinner at first. This is because he/she is losing fluid from the body. Continue to give RUTF.

---

#### Notes:

The caretaker should be asked to repeat back the messages to check they have been understood.

As the child reaches the end of their treatment in OTP, other foods can be given in addition to the RUTF.

These messages are basic essential messages for OTP. They can be supplemented with other health and education messages during follow up visits and in the community.



**ANNEX 16: ROUTINE MEDICAL PROTOCOL FOR OTP**

Drug	When	Age/Weight	Prescription	Dose
AMOXYCILLIN	On admission	2-12 months (4-10kg)	Syrup 125 mg 5ml	3 times/day for 5 days
		12months-5 years (10-19kg)	Syrup 125mg 10ml	
ANTI MALARIAL*	On admission (as required)	>2 months old	See malaria protocol	See malaria protocol
MEBENDAZOLE**	Second visit	< 1 year	<b>DO NOT GIVE</b>	None
		12-23 months	250 mg	Single dose on second visit
		—	500 mg	
MEASLES VACCINATION ***	On week 4	From 6 months	Standard	Once on week 4
IRON/FOLIC ACID ****	On day 14 for mild/moderate anaemia	> 2 months old	See iron/folic acid protocol	Give one dose daily for 14 days
VITAMIN A	Only give if signs of vitamin A deficiency or history of measles (do NOT give if oedema)	6 months to 1 year	100 000 IU	Single dose on admission (for children with oedema - single dose on discharge)
		≥ 1 year	200 000 IU	

\*ANTI-MALARIAL: Give if child has fever for more than 48 hours and other cause of fever is absent AND child lives in high malarial area

\*\*ALBENDAZOLE: Albendazole may be used instead of Mebendazole: < 1 year: DO NOT GIVE; 12-23 months: 200mg; ≥2 years 400mg

\*\*\*MEASLES: Children should be referred to EPI for any outstanding vaccinations

\*\*\*\*IRON/FOLIC ACID: Not to be given routinely. Where there is moderate anaemia as identified by some palmar pallor give iron/folic acid after 14 days in the programme and not before (see profile) for severe anaemia refer to inpatient care.



## ANNEX 17: RUTF RATION FOR OTP

RUTF= 92g packets containing 500 kcal (packed in cartons of 150 sachets)

Weight of child (kg)			packets per week <i>Provide double quantity if OTP is every two weeks</i>	packets per day
3.5	-	3.9	11	1.5
4	-	5.4	14	2
5.5	-	6.9	18	2.5
7	-	8.4	21	3
8.5	-	9.4	25	3.5
9.5	-	10.4	28	4
10.5	-	11.9	32	4.5
≥ 12			35	5

### Calculating how much RUTF is needed

Imported RUTF is packed in cartons of 150 sachets.

A	Number of children in OTP	
B	Monthly consumption of RUTF per child (based on average of 20 sachets/week)	80
C	Beneficiaries x monthly consumption	AXB
D	Monthly Carton consumption for OTP	C/150
E	Monthly net weight 13.8kg/1000 (MT) 150x13.8 =X/1000MT	Dx13.8/1000

\*Imported RUTF is made from peanut paste, milk powder, vegetable oil and sugar. A specifically designed micronutrient mix is added. The RUTF is made to the same formulation as F100 and is designed to meet the special needs of severely acutely malnourished children.



**ANNEX 18: IRON AND FOLIC ACID DOSES MEDICAL PROTOCOL FOR OTP**

<b>IRON/FOLIC ACID DOSAGES</b>		
Give one dose daily for 14 days		
<b>AGE or WEIGHT (KG) of child</b>	<b>IRON/FOLATE TABLET</b> Ferrous sulfate 200 mg + 250 mcg folate	<b>IRON SYRUP</b> Ferrous fumarate 100 mg per 5 ml
2 - 4 months (4 - <6 kg)		1.00 ml
4 - 12 months (6 - <10 kg)		1.25 ml
12 months - 3 years (10 - <14 kg)	1/2	2.00 ml
3 - 5 years (14 - 19 kg)	1/2	2.5 ml



## ANNEX 19: NATIONAL SUMMARY TREATMENT PROTOCOL FOR CASE MANAGEMENT OF MALARIA

Diagnosis	Treatment Choices	Contra-Indication/Alternate treatment
Clinical Malaria	<p><b>Firstline drug</b> Chloroquine oral only</p> <p><b>2ndline drug</b></p> <p>During follow up if the response is partial, or the symptoms reappear within 28 days (recrudescence of falciparum case with initial response to CQ but due to resistance to CQ the symptoms reappear)</p> <p><b>Artemether plus lumefantrine</b> for three days</p> <p>In case of developing symptoms of severity the patient should be referred to secondary care facility after pre-referral treatment with IV/ IM or suppository of Artesunate, Artemether IM</p>	<p>IM Quinine in case the patient is a pregnant woman</p> <p>For treatment at secondary care facility see the treatment below for severe falciparum cases</p>
Confirmed uncomplicated falciparum malaria (by RDT or microscopy)	<p><b>First line treatment</b> 3 days treatment with <b>Artesunate+ SP</b></p> <p><b>2nd line treatment in failure cases</b> 3 days <b>Artemether plus lumefantrine</b>(See the dosage)</p>	<p>In 1st trimester of pregnancy give Oral Quinine for 7 days (see the dosage of Quinine oral)<b>Artesunate+ SP</b> can be prescribed during the rest of pregnancy period with confidence</p> <p>In failure cases during pregnancy <b>Artemether plus lumefantrine</b> is contra-indicated. In this case Oral Quinine has to be given as above</p>
Confirmed vivax cases (by RDT or microscopy)	<p><b>Firstline treatment</b> 3 days treatment with <b>oral Chloroquine</b></p> <p><b>2ndline treatment in failure cases</b> Oral Quinine for 7 days should be prescribed to all cases</p>	<p>Resistance to CQ in vivax malaria has not been detected yet in Pakistan however if symptoms or parasitaemia still persists after day 3, Oral Quinine for 7 days should be prescribed to all cases</p>
PF/PV mixed infections	<p><b>Artemether plus lumefantrine</b> for 3 days should be given with fatty diet (milk, butter etc.) Plus 14 days <b>Primaquine</b> should also be prescribed as in vivax cases</p>	<p>Pregnancy is the contraindication. So only Quinine oral has to be dispensed to treat both the species of parasites</p>
Severe and complicated falciparum malaria	<p>IV Artesunate where not contraindicated once daily till the patient takes the drug orally or 7 days treatment is completed with this monotherapy. Patient is switched over to oral ACT for 3 days (Artesunate plus SP)</p> <p>In areas where parenteral Artesunate is not available, IV Quinine in diluted form should be dispensed under close monitoring</p>	<p>Where Artesunate or any other parenteral artemisinin derivatives are contraindicated, patient should be treated with IV Quinine initially followed by oral Quinine when the patient is able to take the drug orally. Complete 7 days treatment has to be dispensed in this case.</p>



For dosage schedule of recommended drugs see the table below.

S.No	Drug	Dosage schedule
1	Chloroquine Oral	Provided in 250 mg salt with 150 mg base (dose recommended as base)
2	Artesunate plus Sulfadoxinepyrimethamine	Provided in co blister packing both for adults and children Single dose for 3 days See table A and B below
3	Artemether plus lumefantrine	See below table C
4	Artesunate IM/IV	Artesunate IV or IM should be used in preference to parenteral quinine for the treatment of severe malaria. Artesunate: 2.4 mg/kg IV or IM given on admission (time = 0) then at 12 and 24 hours, then once a day until the patient can swallow. It is available in ampoules, containing 60 mg anhydrous artesunic acid with a separate ampoule of 5% sodium bicarbonate solution. Reconstitution: the vial of artesunate powder should be mixed with 1 ml of 5% sodium bicarbonate solution (provided) and shaken 2-3 minutes for better dissolution The solution should be prepared freshly for each administration and should not be stored. Then: IV administration: add 5 ml of 5% glucose or normal saline to make the concentration of artesunate as 10 mg/ml and administer by slow infusion; IM administration: add 2 ml of 5% glucose or normal saline to make the concentration of artesunate as 20 mg/ml.
5	Quinine 300 mg tablets for oral use	20mg/kg body weight loading oral dose followed by 10 mg/kg bw every 8 hours for 7 days.

**A. Artesunate tablets containing 50 mg and sulfadoxine/pyrimethamine (SP) tablets containing 25 mg/500 mg)**

Weight (kg)	Artesunate 50 mg tablets			Sulfadoxine-Pyrimethamine (500/25)
	Day 1	Day 2	Day 3	Day 1(Single Dose)
5 - 10	1/2	1/2	1/2	1/2
>10 - 24	1	1	1	1
>24 - 50	2	2	2	2
> 50	4	4	4	3





**B. Artesunate tablets containing 100 mg and sulfadoxine/pyrimethamine (SP) tablets containing 25 mg/500 mg)**

Weight (kg)	Artesunate 100 mg tablets			Sulfadoxine-pyrimethamine (500/25)
	Day 1	Day 2	Day 3	Day 1
5 - 10	1/4	1/4	1/4	1/2
>10 - 24	1/2	1/2	1/2	1
>24 - 50	1	1	1	2
> 50	2	2	2	3

**C. Artemether-lumefantrine:artemether 20 mg and lumefantrine 120 mg**

Body weight (kg)	Age in years							14 days
		0 hr	8 hrs	24 hrs	36 hrs	48 hrs	60 hrs	Daily
5 - 14	1 - 3	1	1	1	1	1	1	0
15 - 24	≥ 3 - 8	2	2	2	2	2	2	1/4
25 - 34	8 - 12	3	3	3	3	3	3	1/2
> 35	≥ 12	4	4	4	4	4	4	1



## ANNEX 20: ADDITIONAL MEDICINES FOR SEVERE ACUTE MALNUTRITION IN OTP

Name of Product	When	Prescription	Special Instructions
CHLORAMPHENICOL/ CEPHALOSPORIN	To be given as second line antibiotic for children not responding to amoxicillin i.e continued fever that is not due to malaria.	Chloramphenicol, 100mg/kg divided in 6 hourly dosage.	The choice of cephalosporin is to be according to the availability at that particular centre. Dosage is to be adjusted accordingly.
METRONIDAZOLE	For the treatment of all bloody diarrhoea and diarrhoea that has lasted for more than 7 days	See separate protocol	Give 3 times a day for 5 days
TETRACYCLINE EYE OINTMENT	For treatment of eye infection.	Apply 3 times a day, morning, afternoon and at night before sleep	Wash hands before and after use. Wash eyes before application. Continue for 2 days after infection has gone.
NYSTATIN	For treatment of candida.	100,000 units (1 ml) 4 times a day after food (use dropper and show the carer how to use it)	Continue for 7 days
PARACETAMOL	For children with fever over 39°C/102F	See separate protocol	Single dose only - do NOT give to take home.
BENZYL BENZOATE	For treatment of scabies.	Apply over whole body. Repeat without bathing on following day. Wash off 24 hours later.	Avoid eye contact. Do not use on broken or secondary infected skin.
WHITFIELDS	For treatment of ringworm or other fungal infections of the skin.	Apply twice a day	Continue treatment until condition has completely resolved.
GENTIAN VIOLET	For treatment of minor abrasions or fungal infections of the skin.	Apply on lesion	Can be repeated at next visit and continued until condition resolved.
SULFADOXINE PYRIMETHAMINE	2nd line anti-malarial treatment for children who have not responded to first line	See separate protocol	Give single dose in clinic



## ANNEX 21: PARACETEMOL AND METRONIDAZOLE DOSES

### Paracetamol

#### For severely malnourished children use with extreme caution

Give one time treatment only and start antibiotic or anti-malarial immediately. Monitor child - if the fever is greater than 39°C/102°F, where possible, refer to inpatient care. If inpatient care is not possible, give a single dose of paracetamol and tepid sponge the child until fever subsides. Return to clinic if high fever continues at home.

Give a single dose immediately (*stat dose*) for symptomatic treatment of fever.

SYRUP - 125 mg / 5 ml				TABLETS - 100 mg			
Weight of Child kg	Dose			Weight of Child kg	Dose		
< 4.0	25 mg	(1 ml)	single dose	< 4.0	25 mg	(¼ tablet)	single dose
4.0 - 8.0	60 mg	(2.5 ml)	single dose	4.0 - 8.0	50 mg	(½ tablet)	single dose
8.0 - 15.0	120 mg	(5 ml)	single dose	8.0 - 15.0	100 mg	(1 tablet)	single dose
> 15.0	240 mg	(10 ml)	single dose	> 15.0	200 mg	(2 tablets)	single dose

**NOTE:** Always check label on bottles for dosages and dilution of syrups as this can change between different manufacturers. Give ONE DOSE only and start antibiotic or antimalarial.

### Metronidazole

For the treatment of all bloody diarrhoea and diarrhoea that has lasted for more than 7 days

Give 3 times a day for 5 days

SYRUP - 125 mg / 5 ml		TABLETS - 200 mg	
WEIGHT	DOSE	WEIGHT	DOSE
< 4.0 kg	<i>do not give</i>	< 4 kg	<i>do not give</i>
4.0 - 7.9 kg	62.5 mg (2.5 ml) <i>tid</i>	4.0 - 5.9 kg	50 mg (¼ tablet) <i>tid</i>
8.0 - 14.9 kg	125 mg (5 ml) <i>tid</i>	6.0 - 11.9 kg	100 mg (½ tablet) <i>tid</i>
15.0 - 35.0 kg	250 mg (10 ml) <i>tid</i>	12.0 - 15.9 kg	150 mg (¾ tablet) <i>tid</i>
		16.0 - 35.0 kg	200 mg (1 tablet) <i>tid</i>
		> 35.0 kg	400 mg (2 tablets) <i>tid</i>





## ANNEX 22: HISTORY AND EXAMINATION FROM FOR USE IN STABILISATION CENTRE

### History

History

Has the child been eating and drinking (if so what)

Breast feeding	Yes	No	Infant <6 months	Yes	Yes	No
Appetite	Good	Poor	None			
Diarrhoea	Yes	No	Stools per day.....	Normal/watery/soft/blood/mucous/pale		
Vomiting	Yes	No	No.per day			
Breathing	Normal/	fast/	noisy	Difficult for how long.....		
Cough.....						
Fever.....						
Convulsions	Yes	No				
Unconscious	Yes	No				

### Examination

Does the child look:	Not ill/ill/very ill/comatose
Mood and behaviour	Normal/apathetic/inactive/irritable/repeated movements
Eyes	Normal/sunken/staring/conjunctivitis/xerosis/keratomalacia
Ears	Normal/discharging
Mouth	Normal/sore/red/candida/smooth tongue/herpes/angular stomatis
Membrane colour	Normal/pale/jaundiced/cyanosed
Gums	Normal/bleeding
Breathing	Normal/noisy/asymmetrical/labored/wheezing/in-drawing
Chest	Normal/asymmetric/pigeon/sulcus
Hydration	Normal/dehydrated/shock
Passing urine	Yes/no
Oedema	None + ++ +++
Peripheries	Normal/warm/cold
Pulse	Rate.../minute. Normal/strong/weak
Heart sounds	Normal/gallop/murmur
Stool	Not seen/normal/soft/watery/green/pale/mucous/blood
Abdomen	Normal/distended/tender/visible/peristalsis
Bowel	Sounds normal/active/quiet/absent
Splash	No/yes
Liver	.....cm below costal margin, normal/firm/hard/smooth/irregular
Spleen	Not felt/large-normal/ firm/hard-tender/painless
Tone	Normal/stiff/floppy
Meninges	Normal/stiff neck/Brudzinski/fontanelle bulging
Skin changes	None/raw/ulcers/infection/cuts/bruises
Perineum	Normal/rash/raw/candida
Purpura	No/yes
Scabies	None/local/generalised
Lymph nodes	None/groin/axilla/neck tender/painless/soft/firm/hard/fixed
Hair	Normal/easily plucked/balding



## ANNEX 23: STABILISATION CENTRE CARD

In-patient care facility Name	Registration Number		Referred From										
	Age	Sex	8	9	10	11	12						
<b>ANTHROPOMETRIC CHART</b>													
DATE	1	2	3	4	5	6	7	8	9	10	11	12	
Length (cm) (< 6 months only)													
Weight (kg)													
weight-for-length (<6 m only)													
MUAC (cm)													
Oedema (+ ++ +++ +++)													
Diarrhoea	Yes	No		Stools / Day	1-3	4-5	>5		Passing Urine	Yes	No		
Vomiting	Yes	No		Cough	Yes	No			If oedema, how long swollen?				
Appetite	Good	Poor		Breastfeeding	Yes	No		Dietary history					
<b>HISTORY</b>								<b>Reported Problems</b>					
<b>ROUTINE MEDICINES</b>													
DATE	1	2	3	4	5	6	7	8	9	10	11	12	
Amoxicillin													
Chloroquine												7-10 days	
Sulphadoxine - pyrimethamine													
Vitamin A													
Folic Acid													
Mebendazole													
								on discharge		TYPE		RESULTS	









**ANNEX 24: ROUTINE MEDICINES FOR CHILDREN WITH ACUTE MALNUTRITION (6-59 MONTHS) IN STABILISATION CENTRE**

Name of Product	When	Age/Weight	Prescription	Dose
<b>ANTIBIOTIC</b>	From day 1	All beneficiaries	benzyl penicillin or ampicillin 100mg/kg	1st line: Injectable benzyl penicillin or ampicillin IV or IM plus gentamycin 2nd line: Chlorphenicol
<b>ANTIMALARIAL**</b>	Day 1	Children > 2 months As required	See malaria protocol	See malaria protocol
<b>ALBENDAZOLE***</b>	On discharge	< 1 year	<b>DO NOT GIVE</b>	None
		12-23 months	200 mg	Single dose on exit
		= 2 years	400 mg	
<b>MEASLES VACCINATION</b>	On day 1	From 6 months	Standard	Once on day 1 and at 4 <sup>th</sup> week
<b>VITAMIN A</b>	Do not give unless signs of vitamin A deficiency or history of measles	6 months to < 1 year	100 000 IU	Single dose on day 1
		= 1 year	200 000 IU	

**\*\* ANTIMALARIAL:** Give if child has fever for more than 48 hours and other cause of fever is absent AND child lives in high malarial area

**\*\*\* ALBENDAZOLE:** can be given again after 3 months if signs of re-infection appear.



## Annex 25: Treatment of Complications in the severely malnourished child

A severely malnourished child without appetite and/or with medical complications must be referred to inpatient care.

Reference: World Health Organization (2013) Pocket book of hospital care for children: guidelines for the management of common illnesses. Second edition. Geneva: World Health Organization

**Neonates are a group that need particular special care and therefore should be referred to the paediatric ward where protocols for neonates will be followed.**

### Dehydration

**Misdiagnosis and incorrect treatment for dehydration is the commonest cause of death in malnourished children.**

Many of the signs that are normally used to assess dehydration are unreliable in a child with acute malnutrition, making it difficult or impossible to detect dehydration reliably or determine its severity.

Severely acutely malnourished children are deficient in potassium and have abnormally high levels of sodium, therefore **standard Oral Rehydration Solution (ORS) must not be used**. Instead a **Rehydration Solution for Malnutrition (ReSoMal)** is used.

**CAUTION:** The only indication for intravenous infusion in a child with severe acute malnutrition is circulatory collapse caused by severe dehydration or septic shock (excluding cardiogenic shock) as children can quickly suffer from fluid overload. ReSoMal should never be given freely.

**Breastfeeding should be continued wherever possible during re-hydration therapy.**

The rate of re-hydration must be slower for severely malnourished patients than other patients. Do not exceed the recommended doses. This is particularly important in patients with kwashiorkor, who harbour excess fluid and sodium, but who can be hypovolaemic at the same time (decreased fluid circulating in the vascular space). As clinical condition improves with treatment, fluid may quickly be remobilised back into the circulation, making these patients particularly susceptible to fluid overload. Therefore, correction of hypovolaemia in kwashiorkor patients should be done carefully, under close monitoring and should be stopped immediately when clinical condition improves.

#### Diagnosis of dehydration

- Do **NOT** use the skin pinch test to diagnose dehydration – in marasmus skin normally lies in folds and is inelastic.
- Do **NOT** assume that malnourished children with sunken eyes have dehydration – in marasmus eyes are normally sunken without any dehydration.

The main diagnosis of dehydration comes from the HISTORY rather than the examination. There needs to be:

- A definite history of significant fluid loss – usually diarrhoea which is clearly like water and frequent with sudden onset within the past few hours or days.
- A history of a recent change in the child's appearance. If the eyes are sunken, the mother/caretaker must say that the eyes have become sunken since the diarrhoea began





## Diagnosis of shock with dehydration

When there is definite dehydration based on the history and the examination and:

- A weak or absent radial pulse.
- Cold hands or feet.
- Urine flow is diminished or there is no urine flow

Then the child is going into shock. When, in addition to the above signs, there is also decrease in level of consciousness so that the child is semi-conscious or cannot be roused. This is severe shock.

### Treatment of dehydration

Wherever possible children should be rehydration orally as the use of IV fluids can lead to fluid overload very easily resulting in the death of the child.

IV infusions should only be used where there is severe shock with loss of consciousness from confirmed dehydration.

Management is based on an accurate measurement of weight. Weight of the child should be taken on an infant scale or a hanging scale for older children. Clothing (except underclothes) should be removed.

**Use ReSoMal to treat rehydration in acutely malnourished children.** This usually comes in ready prepared packets which are mixed with water. Where pre-packaged ReSoMal is not available, it can be made as follows:

ReSoMAL recipe	
Ingredient	Quantity
Standard WHO -ORS	One packet (1 litre packet)
Mineral-vitamin mix (where available)	6g
Sucrose (sugar)	50g
Water	2000ml (two litres)

During re-hydration breastfeeding should not be interrupted.

### ReSoMal should be administered as follows:

Give 5ml/kg of ReSoMal every 30 minutes. Children who can drink may be given the required amount as sips or by spoon every few minutes. Malnourished children are weak and quickly become exhausted, so they may not continue to take enough fluid voluntarily. If this occurs, the solution should be given by NG tube at the same rate.

See ReSoMal protocol below

Every 30 minutes assess

- Clinical signs of improvement.
- Clinical signs of over-hydration, especially signs of heart-failure (e.g. respiration rate).

As the child gains weight during re-hydration there should be clinical improvement and the signs of dehydration should disappear. ReSoMal should be stopped when:

- The respiratory and pulse rates increase;
- The jugular veins become engorged; or
- There is increasing oedema (e.g. puffy eyelids).

If there is resolution of the signs of diarrhoea and weight gain stop ReSoMal and start the child on F75



**After 2 hours make a thorough assessment:**

- If there is continued weight loss then increase rate of administration of ReSoMal by 10ml/kg/hour Reassess after one hour.
- If there is no weight gain then increase the rate of ReSoMal by 5ml/kg/hour Reassess after one hour.
- If there is weight gain and deterioration of the child's condition, the diagnosis of dehydration was wrong. Stop ReSoMal and start the child on F75.

**Starting F75**

When there is resolution of the signs of diarrhoea and weight gain stop ReSoMal and start the child on F75

F 75 can usually be introduced within 2-3 hours of starting re-hydration. ReSoMAL and F75 can be given alternately for a few hours if there is still some dehydration and continuing diarrhoea.

**Assessing target weight for rehydration with watery diarrhoea**

Weight loss is generally 2-5% of body weight

Do not attempt to increase body weight by more than 5% in conscious children

If there is weight gain of up to 5% of body weight with ReSoMal rehydration therapy, the dehydrated child will show dramatic improvement and treatment can continue with F 75.

**Treatment of shock from dehydration**

If there is definite dehydration (a history of fluid losses, a change in the appearance of the eyes and the patient has all of the following:

- Semi-conscious or unconscious.
- Rapid weak pulse.
- Cold hands and feet.

The child should be treated with IV fluids. Use one of the following solutions (in order of preference):

- Half-strength Darrow's solution with 5% glucose (dextrose).
- Ringer's lactate solution with 5% glucose.
- 0.45% (half-strength) saline with 5% glucose.
- Give 15 ml/kg IV over the first hour and monitor the child carefully for signs of over hydration.
- If there is improvement repeat the 15ml/kg IV over the next hour.
- If there is still no improvement assume the child has septic shock.
- As soon as the child regains consciousness or the pulse rate drops to a normal level, stop the IV fluids and treat the child orally or by NG tube with 10ml/kg of ReSoMal per hour. Continue the protocol above for oral rehydration.

**Resomal protocol**

To be used ONLY after careful diagnosis of dehydration (history and clinical signs).

Monitor regularly

If respiratory rate increases or there is increasing oedema (e.g. of eyelids) or neck veins become distended, stop ReSoMal. Reassess after the first hour.



Weight of Child kg	First 30 Minutes ml	Second 30 Minutes ml	2nd Hour ml
2.0 - 2.9	10	10	20
3.0 - 3.9	15	15	30
4.0 - 4.9	20	20	40
5.0 - 5.9	25	25	50
6.0 - 6.9	30	30	60
7.0 - 7.9	35	35	70
8.0 - 8.9	40	40	80
9.0 - 9.9	45	45	90
10.0 - 10.9	50	50	100
11.0 - 11.9	55	55	110
12.0 - 12.9	60	60	120
13.0 - 13.9	65	65	130
14.0 - 14.9	70	70	140
15.0 - 15.9	75	75	150

### **Septic or toxic shock**

Dehydration and septic shock are difficult to differentiate in a child with severe malnutrition. Most of the signs of true dehydration are seen in septic shock. A careful history and clinical examination can usually lead to the correct diagnosis and appropriate treatment.

#### **Diagnosis of septic shock**

A fast weak pulse with:

- Cold peripheries (hands and feet)
- Altered consciousness
- Absence of signs of heart failure.

**Incipient septic shock:** The child is usually limp, apathetic and profoundly anorexic, but is neither thirsty nor restless.

**Developed septic shock:** The superficial veins, such as the external jugular and scalp veins, are dilated rather than constricted. The veins in the lungs may also become engorged, making the lungs stiffer than normal. For this reason the child may groan, grunt, have a shallow cough and appear to have difficulty breathing. As shock worsens, kidney, liver, intestinal or cardiac failure may occur. There may be vomiting of blood mixed with stomach contents ("coffee-ground vomit"), blood in the stool, and abdominal distension with "abdominal splash". When a child reaches this stage, survival is unlikely.

#### **Treatment of septic shock**

- Give broad-spectrum antibiotics
- -Second and third line together
- -For developed septic shock consider third line antibiotics, antifungal treatment and anti-staphylococcal treatment
- Keep the child warm to prevent or treat hypothermia





- Give sugar-water by mouth or naso-gastric tube as soon as the diagnosis is made (to prevent hypoglycaemia)
- The child should not be handled any more than is essential for treatment. Nor should the child be washed or bathed; after the child has defecated, his or her bottom can be cleaned with a damp cloth.

**Incipient septic shock:** Give the child F75 by NG tube

**Developed septic shock:** If the patient is unconscious give:

- Begin IV rehydration immediately with one of the following:
  - half-strength Darrow's solution with 5% glucose (dextrose)
  - Ringer's lactate solution with 5% glucose<sup>2</sup>
  - 0.45% (half-normal) saline with 5% glucose.<sup>2</sup>
- Give 15 ml/kg per hour.
- Monitor every 10 minutes for signs of over-hydration and congestive heart failure:
  - Increasing respiratory rate
  - Development of grunting
  - Increased liver size
  - Vein engorgement
- If signs of congestive heart failure develop or the child does not improve after 1 hour of IV therapy, give a blood transfusion (10ml/kg slowly over at least 3 hours). If blood is not available, give plasma. During the blood transfusion, nothing else should be given, so as to minimize the risk of congestive heart failure. If congestive heart failure develops (e.g. distension of the jugular veins, increasing respiratory rate or respiratory distress), give a diuretic (the most appropriate choice is furosemide (1 mg/kg) and slow the rate of transfusion.
- If there are signs of liver failure (e.g. purpura, jaundice, enlarged tender liver), give a single dose of 1mg of vitamin K intramuscularly.

**As soon as the radial pulse becomes strong and the child regains consciousness, Start F 75**

**CAUTION:** Steroids, epinephrine or nikethamide are of no value and should never be used.



## Heart failure

This is usually a complication of over-hydration (especially when an IV infusion or standard ORS solution is given), very severe anaemia, blood or plasma transfusion, or giving a diet with a high sodium content.

### Diagnosis of heart failure

- Clinical deterioration with weight gain
- A sudden increase in liver size
- Tenderness developing over the liver
- An increase in respiration rate
- An acute increase in respiration of more than 5 breaths per minute (particular during rehydration treatment)
- 50 breaths per minute up to 1 year of age
- >40 in children 1 – 5 years
- Respiration that has or develops a 'grunting' sounds during each expiration
- Crepitations or rales in the lungs
- Prominent superficial and neck veins
- Engorgement of the jugular vein
- Increase of oedema or reappearance of oedema during treatment
- A rapid pulse,
- Cold hands and feet
- Cyanosis of the fingertips and under the tongue.

Heart failure must be differentiated from respiratory infection and septic shock, which usually occur within 48 hours of admission, whereas heart failure usually occurs somewhat later.

### Treatment for heart failure

- Stop all oral intake and IV fluids. The treatment of heart failure takes precedence over feeding the child. No fluid should be given until the heart failure is improved, even if this takes 24–48 hours. Small amounts of sugar water can be given orally to prevent hypoglycaemia.
- Give a diuretic IV. The most appropriate choice is furosemide (1 mg/kg).
- Do not give digitalis unless the diagnosis of heart failure is unequivocal (jugular venous pressure is elevated) and the plasma potassium level is normal. In that case, 5mg/kg of body weight of digoxin may be given IV as a single dose, or orally, if the IV preparation is not available.
- If heart failure is associated with severe anaemia, the treatment of the heart failure takes precedence over the treatment of anaemia. A patient in heart failure should not be transfused unless there is experience and the necessary facilities to deal with exchange transfusion.
- Children with oedema can go into heart failure without a gain in weight, if the expanded circulation is due to oedema fluid being mobilised from the tissues to the vascular space. Initial over-treatment can lead to death several days later from heart failure when intracellular sodium (marasmus and oedematous malnutrition) and oedema fluid are being mobilised. All children have a fall in Hb during the early phase in treatment. This is known as "dilutional anaemia" and should not be transfused.



## Hypoglycaemia

Hypoglycaemia can be a sign of infection or can occur when the child has to travel far to reach the in-patient care facility. Sugar water should be given to children on arrival at the health facility.

Hypoglycaemia and hypothermia often occur together. Check for hypoglycaemia whenever hypothermia is found.

Frequent feeds will usually prevent hypoglycaemia occurring.

### **Diagnosis of hypoglycaemia**

There are often no signs of hypoglycaemia. One sign that does occur in malnourished children is eye-lid retraction (gives a staring appearance to the eyes or causes the child to sleep with his/her eyes open).

### **Treatment of hypoglycaemia**

If the patient is conscious or can be roused and is able to drink:

- Give 50 ml of 10% glucose or sucrose (sugar).
- **Or**
- Give F-75 diet by mouth

If the child is losing consciousness, cannot be aroused or has convulsions:

- Give IV sterile 10% glucose (5ml/kg), followed by 50ml of 10% glucose or sucrose by naso-gastric tube.

When the child regains consciousness:

- Immediately begin giving F-75 diet.
- Continue frequent oral or NG feeding with F-75 diet to prevent a recurrence.
- All children with suspected hypoglycaemia should also be given the second line antibiotic.

The response to treatment is rapid. If a very lethargic or unconscious child does not respond with treatment, there is another cause for the clinical condition which must be found and treated.





## Severe anaemia

### Diagnosis of severe anaemia

If the haemoglobin concentration is less than 40 g/l or the packed-cell volume is less than 12%, the child has very severe anaemia, which can cause heart failure.

### Treatment of severe anaemia

If children with very severe anaemia need a blood transfusion.

- Give 10 ml of packed red cells or whole blood per kg of body weight slowly over 3 hours.
- It is particularly important that the volume of 10 ml/kg is not exceeded in severely malnourished children. If the severely anaemic child has signs of cardiac failure, transfuse packed cells (5-7 ml/kg) rather than whole blood.

### Ensure that blood is screened for Hepatitis B, C and for HIV

- All children should be fasted during and for at least 3 hours after a blood transfusion
- If the child is dehydrated and has severe anaemia – treat the dehydration first. If the blood is to be given for anaemia it should be given during the first 24 hours after admission. Children who receive blood for anaemia should not be getting ReSoMal.
- **Where a blood transfusion is not available**, the health care provider only has the option of giving folic acid on admission and giving iron once the child has an appetite and is gaining weight (usually after 14 days). The following doses should be given:

Age Group	Dose	Duration
< 2 years	25 mg iron + 100-400 µg folic acid daily	3 months
2-12 years	60 mg iron + 400 µg folic acid daily	3 months

### CAUTION:

Increasing anaemia and heart failure or respiratory distress is a sign of fluid overload and an expanding plasma volume – the heart failure is not being caused by the anaemia; these patients should never be given a straight transfusion of blood or even packed cells

**Do not give iron during the initial phase of treatment**, as it can have toxic effects and may reduce resistance to infection.

### Monitoring the child with severe anaemia

Monitor for signs of transfusion reactions. If any of the following signs develop during the transfusion, stop the transfusion:

- Fever
- Itchy rash
- Dark red urine
- Confusion
- Shock

Monitor the respiratory rate and pulse rate every 15 minutes. If either of them rises, transfuse more slowly. Following the transfusion, if the Hb remains less than 4 g/dl or between 4 and 6 g/dl in a child with continuing respiratory distress, DO NOT repeat the transfusion within 4 days. In mild or moderate anaemia, oral iron should be given for two months to replenish iron stores **BUT this should not be started** until the child has an appetite and is gaining weight (usually after 14 days).



## Hypothermia

Severely malnourished children are highly susceptible to hypothermia. The room where children are treated should be warm especially at night (between 28 and 32°C). There should be adequate blankets. Windows and doors should be shut at night.

### Diagnosis of hypothermia

- Rectal temperature below  $<35.5^{\circ}\text{C}$
- Under arm temperature  $< 35^{\circ}\text{C}$

### Treatment of hypothermia

- Use the skin to skin technique for children with a caretaker. Place the child on the front of the mother / caretaker with the mothers / caretakers arms wrapped round the child. The mother / caretaker and the child are wrapped in blankets together. Give hot drinks to the mother / caretaker so her skin gets warmer
- Put a hat on the child as most heat is lost through the head
- Do not use a hot water bottle – this is too dangerous
- Place a heater or lamp nearby
- Ensure that the room is not cold
- Treat for hypoglycaemia and give second line antibiotic.
- Monitor body temperature during re-warming.



## Dermatosis of Kwashiorkor

Dermatosis presents in children with severe kwashiorkor. It often spontaneously resolves with nutritional treatment. The zinc supplement contained in the nutritional treatment is particularly important in these children, as they are usually severely zinc deficient.

### Diagnosis of dermatosis

- Hypo- or hyperpigmentation
- Desquamation
- Ulceration (spreading over limbs, thighs, genitalia, groin, and behind the ears)
- Lesions (resembling severe burns) often with secondary infection, including Candida

### Treatment of dermatosis

- Atrophy of the skin in the perineum leads to severe nappy dermatitis, especially if the child has diarrhoea. The nappy area should be left uncovered. If the nappy area becomes colonized with *Candida* spp., it should be treated with nystatin ointment or cream (100 000 IU (1 g)) twice daily for 2 weeks and the child should be given oral nystatin (100 000 IU four times daily).
- In other affected areas, application of zinc and castor oil ointment, petroleum jelly or paraffin gauze dressings helps to relieve pain and prevent infection.
- Bathe the affected areas in 1% potassium permanganate solution for 10–15 minutes daily. This dries the lesions, helps to prevent loss of serum, and inhibits infection.
- Polyvidone iodine, 10% ointment, can also be used. It should be used sparingly especially if the lesions are extensive, as there is significant systemic absorption.
- All children with kwashiorkor-related dermatosis should receive systemic antibiotics





## ANNEX 26: AMOUNT OF F75 TO GIVE IN PHASE 1 (STABILISATION CENTRE) AMOUNT OF F100 TO GIVE IN TRANSITION PHASE

### Recommendation:

Provide F75 feeds every 3 hours for the first 1- 2 days and move to six feeds a day if there is no vomiting or diarrhoea.

F75 contains:75 kcal/100 ml and 0.9 g protein/100 ml. 130 ml of F75 = 100kcal

Weight of child (kg)	Volume of F-75 per feed (ml)*			Daily total (130 ml/kg)
	Every 2 hours (12 feeds)	Every 3 hours (8 feeds)	Every 4 hours (6 feeds)	
2.0	20	30	45	260
2.2	25	35	50	286
2.4	25	40	55	312
2.6	30	45	55	338
2.8	30	45	60	364
3.0	35	50	65	390
3.2	35	55	70	416
3.4	35	55	75	442
3.6	40	60	80	468
3.8	40	60	85	494
4.0	45	65	90	520
4.2	45	70	90	546
4.4	50	70	95	572
4.6	50	75	100	598
4.8	55	80	105	624
5.0	55	80	110	650
5.2	55	85	115	676
5.4	60	90	120	702
5.6	60	90	125	728
5.8	65	95	130	754
6.0	65	100	130	780
6.2	70	100	135	806
6.4	70	105	140	832
6.6	75	110	145	858
6.8	75	110	150	884
7.0	75	115	155	910
7.2	80	120	160	936
7.4	80	120	160	962
7.6	85	125	165	988
7.8	85	130	170	1014
8.0	90	130	175	1040
8.2	90	135	180	1066
8.4	90	140	185	1092
8.6	95	140	190	1118
8.8	95	145	195	1144
9.0	100	145	200	1170
9.2	100	150	200	1196
9.4	105	155	205	1222
9.6	105	155	210	1248
9.8	110	160	215	1274
10.0	110	160	220	1300



### Amount of F100 to give in transition phase

Give F100 full strength to children in transition (where RUTF is not available). Provide 6 feeds/day.

**CAUTION:** F100 full strength is NOT given to infants less than 6 months or less than 3kg. These infants should be given F100 diluted.

Weight(kg)	6 feeds/day
3-3.4	80
4-4.4	85
4.5-4.9	95
5-5.4	110
5.5-5.9	120
6-6.9	140
7-7.9	160
8-8.9	180
9-9.9	190
10-10.9	200
11-11.9	230
12-12.9	250
13-13.9	275
14-14.9	290
15-19.9	300
20-24.9	320
25-29.9	350
30-39.9	370
40-60	400



## ANNEX 27: RECIPES FOR F75 AND F100

### Recipe for locally prepared F75

Type of milk	Milk (g)	Eggs (g)	Sugar (g)	Oil (g)	Cereal powder (g)	CMV* Red scoop =6g	Water (ml)
Dry skim milk	25	0	70	27	35	2	1000
Dry whole milk	35	0	70	20	35	2	1000
Fresh cow (or goat) milk	280	0	65	20		2	1000
Whole eggs	0	80	70	20	40	2	1000

\*CMV=special mineral and vitamin powder mix designed for the treatment of severe acute malnutrition. This can be obtained from Nutriset. This should be used wherever possible. Where this is not available use the mineral and vitamin mix recipes below. Add 20ml of mineral mix and 140ml of vitamin mix

#### How to prepare the recipe:

- Cereal powder should be cooked for about 10 minutes.
- Add the milk, sugar, and oil to the cereal powder
- Add some water and mix.
- Boil mixture for 5–7 minutes.
- Allow to cool, then add the mineral mix and vitamin mix and mix again.
- Make up the volume to 1000 ml with water.

### Recipe for locally prepared F100

Type of milk	Milk (g)	Eggs (g)	Sugar (g)	Oil (g)	CMV* Red scoop =6g	Water (ml)
Dry skim milk	80	0	50	60	2	1000
Dry whole milk	110	0	50	30	2	1000
Fresh cow (or goat) milk	900	0	50	25	2	1000
Whole eggs	0	220	90	35	2	1000

### Recipes for mineral solution and vitamin mix used in the preparation of F75

#### Mineral solution

Weigh the following ingredients and make up to 1000 ml. Add 20 ml of electrolyte/mineral solution to the recipe for F75 above.

Substance	Amount
Potassium Chloride: Kcl	89.5 g
Tripotassium Citrate: C <sub>6</sub> H <sub>5</sub> K <sub>3</sub> O <sub>7</sub> .H <sub>2</sub> O	32.4 g
Magnesium Chloride: (MgCl <sub>2</sub> · 6H <sub>2</sub> O)	30.5 g
Zinc Acetate: Zn(CH <sub>3</sub> COO) <sub>2</sub> .2H <sub>2</sub> O	3.3 g
Copper Sulphate: CuSO <sub>4</sub> .5H <sub>2</sub> O	0.56 g
Sodium selenate*	10 mg
Potassium iodide*	5 mg
Water: Make up to	1000 ml

\* If it is not possible to accurately weigh these small amounts, these substances can be omitted





The solution can be stored at room temperature (or fridge where possible). It is added to the milk at a concentration of 20 ml/litre.

- Dissolve the ingredients in cooled boiled water.
- Discard if it turns cloudy.
- Make fresh each month.
- Store the solution in sterilised bottles

### Vitamin Mix

Vitamin	Amount per litre of liquid diet
<b>Water soluble:</b>	
Thiamine (vitamin B1)	0.7 mg
Riboflavin (vitamin B2)	2.0 mg
Nicotinic acid	10 mg
Pyridoxine (vitamin B6)	0.7 mg
Cyanocobalamin (vitamin B12)	1 µg
Folic acid	0.35 mg
Ascorbic acid (vitamin C)	100 mg
Pantothenic acid (vitamin B5)	3 mg
Biotin	0.1 mg
<b>Fat soluble:</b>	
Retinol (vitamin A)	1.5 mg
Calciferol (vitamin D)	30 µg
γ-Tocopherol (vitamin E)	22 mg
Vitamin K	40 µg

**ANNEX 28: ROUTINE MEDICINES FOR ACUTELY MALNOURISHED INFANTS (1- 6 MONTHS) IN INPATIENT CARE (NEONATES WHO TREATED IN PAEDIATRIC WARD)**

Name of Product	When	Age/Weight	Prescription	Dose
<b>AMOXICILLIN + GENTAMYCIN</b>	At admission	All infants > 2 kg	No antibiotic treatment is provided unless there are signs of infection.  If there is any sign of infection, give Amoxicillin (for infants weighing a minimum of 2 kg) 30 mg/kg bodyweight, two times a day (60 mg/kg bodyweight/day) in association with Gentamycin 7.5 mg/kg bodyweight/day IM or IV for seven days.	2 times a day for 7 days
<b>IRON SYRUP Ferrous Fumarate 100 mg per 5 ml)</b>	On week 4	2 months to 4 months	1.0 ml	Give one dose on day 1
		4 months to 6 months	1.25 ml	
<b>ANTIMALARIAL*</b>	On day 1	Infants >2 months	see malaria protocol	see malarial protocol
<b>VITAMIN A**</b>	On day 1	Only give if signs of vit A deficiency or history of measles	50,000 IU	Single dose on admission Do not give with oedema

\*ANTIMALARIAL: Give if child has fever for more than 48 hours and other cause of fever is absent AND child lives in high malarial area

\*\*VITAMIN A: Do not give unless there are signs of vitamin A deficiency such as corneal ulceration of a history of measles as the amount in therapeutic foods is enough.





**ANNEX 29: MONTHLY REPORT - SUPPLEMENTARY FEEDING PROGRAMMES**

NAME OF HEALTH FACILITY									
DISTRICT									
Tehsil/Taluka									
Target group	Total in SFP beginning of the month (A)	New Admissions (B)		Moved In		TOTAL ADMISSIONS (D)	Moved In		TOTAL IN
		MUAC 11.5 - <12.5cm (B1)	MUAC < 21.0 cm (B2)	RELAPSE after cure (B3)	RETURN after defaulting (B4)		Transfer from OTP or INPATIENT (C1)	OTHER (C2)	
6 - 59 months						0			0
Pregnant and lactating women						0			0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**DEFINITIONS:**

B3: Relapse after cure: previously exited as cured but currently fulfills enrolment criteria with 2 months

B4: Other - admission which does not fulfil age criteria or anthropometric criteria but who need monitoring and treatment

B4: Return after defaulting: Children or pregnant and lactating women who have returned to the programme after defaulting within 2 months

E1: Cured = child or mother that have reached the exit criteria

E3: Defaulter = child or mother absent for 2 consecutive visits

E4: Non recovered = child or mother that does not reach the exit criteria after 4 months in SFP

E6: Medical transfer = transfer to a health facility for medical reasons where there is no nutrition treatment





Report prepared by										
MONTH / YEAR										
Exits (E)						TOTAL DISCHARGE (G)	Moved out (F)		TOTAL OUT	Total in SFP end of the month (I)
RECOVERED (E1)	DEATH (E2)	DEFAULTER (E3)	NON-RECOVERED (E4)	TRANSFER TO TFP (E5)	MEDICAL TRANSFER (E6)		SAN discharges (H1)	Other (H2)		
						0			0	0
						0			0	0
0	0	0	0	0	0	0	0	0	0	0
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Additional information										
Male										
Female										



**ANNEX 30: MONTHLY REPORT - OUT-PATIENT THERAPEUTIC PROGRAMMES**

NAME OF HEALTH FACILITY									
DISTRICT									
Tehsil/Taluka									
Age group	Total in OTP beginning of the month (A)	New Admissions (B)			Moved In	TOTAL ADMISSIONS (D)	Moved In		TOTAL IN
		MUAC < 11.5cm (B1)	OEDEMA (B2)	RELAPSE (B3)	Return after default (B4)		Transfer from SC (C1)	Other (C2)	
6-59 months						0			0
<b>TOTAL</b>	0	0	0			0	0	0	0

**DEFINITIONS:**

**B3: Relapse after cure: previously exited as cured but currently fulfills admission criteria within 2 months**

**B4: Return after defaulting: Children who have returned to the programme within 2 months**

**C2: Other - admission which does not fulfil age criteria or anthropometric criteria but who need monitoring and treatment**

**E1: Recovered= children that have reach the exit criteria**

**E3: Defaulter = child absent for 3 consecutive visits or 4 visits if OTP every 2 weeks**

**E4: Non recovered = child that does not reach the exit criteria after 4 months in OTP**

**E5: Medical transfer = transfer to a health facility for medical reasons where there is no nutrition treatment**



Report prepared by							
MONTH / YEAR							
Discharge (E)					Moved out	TOTAL DISCHARGE (G)	Total in in-patient at end of the month (H)
EXIT TO OTP (E1)	DEATH (E2)	DEFAULTER (E3)	NON-RECOVERED (E4)	MEDICAL TRANSFER (E5)	OTHER		
						0	0
						0	0
0	0	0	0	0	0	0	0
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			





**ANNEX 31: MONTHLY REPORT - STABILISATION CENTRE**

NAME OF Health facility									
DISTRICT									
Taluka/Tehsil									
Age group	Total in in-patient care beginning of the month (A)	New Admissions (B)				Moved In			TOTAL ADMISSION (D)
		MUAC < 11.5cm (B1)	OEDEMA (B2)	INFANTS WFH < -3 Z SCORES, WASTED, NO WEIGHT GAIN etc	RELAPSE (B3)	Return after default (C1)	Transfer from OTP (C2)	Other (C3)	
< 6 months									0
6-59 months									0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>						<b>0</b>

**DEFINITIONS:**

**B3: Relapse after cure:** previously exited as cured but currently fulfills admission criteria within 2 months

**C1: Return after defaulting:** Children who have returned to the programme after defaulting and who meet admission criteria within 2 months

**C3: Other - admission** which does not fulfil age criteria or anthropometric criteria but who need monitoring and treatment

**E1: Exit to OTP =** children that have reach the criteria to discharge from in-patient care

**E3: Defaulter =** child absent for 2 days

**E4: Non recovered =** child that does not reach the discharge criteria after 45 days in in-patient care

**E5: Medical transfer =** transfer to a health facility for medical reasons where there is no nutrition treatment



Report prepared by							
MONTH / YEAR							
Discharge (E)					Moved out	TOTAL DISCHARGE (G)	Total in in-patient at end of the month (H)
EXIT TO OTP (E1)	DEATH (E2)	DEFAULTER (E3)	NON-RECOVERED (E4)	MEDICAL TRANSFER (E5)	OTHER		
						0	0
						0	0
0	0	0	0	0	0	0	0
#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			



**Annex 32: NIS Daily Follow Up & Exit Sheet**

NAME Health Facility: \_\_\_\_\_

Serial#	NAME	Program	Reg ID	Family #	Weight (kg)	MUAC (cm)	Oede ma	Date _____				SFP RATION					
								OTF Ration	OTF Ration			RUSF	MIM	Veg. Oil	WSB/F		
								MIM Sach ets	RUTF sach ets	Mebendazol	HEB Packs	Othe r	Sache t#	Sachets/ Tablets	Kgs	BF Kgs	





### Annex 33: Checklists for Supportive Supervision

#### COMMUNITY OUTREACH

Communities: \_\_\_\_\_ Date: \_\_\_\_\_

Community outreach worker(s) \_\_\_\_\_

Referral Health facility: \_\_\_\_\_ Name of Supervisor: \_\_\_\_\_

Quality +++ Correct ++Needs improvement + Weak 0 Not done or done incorrectly	Discussed Y/N	Comments
<b>Community work</b> Regular contact and discussions with community leaders, groups and caregivers made		
<b>Screening</b> Active screening and referral of cases		
<b>Home visit</b> Home visits to absentees and defaulters from previous week done		
Home visits for non-responders home visit done		
IEC on IYCF, health and nutrition (see job aid) to caregivers during the home visit given		
Outreach worker helpful, positive attitude with caregivers observed		



## Targeted supplementary feeding

Health Facility: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_

Name of Health Care providers present: \_\_\_\_\_

Name of Supervisor : \_\_\_\_\_

Quality +++ Correct++ Needs improvement + Weak 0 Not done/done incorrectly	Discussed Y/N	Comments
Number of staff present		Staff
Staff greet the mothers/caregivers and are friendly and helpful		
Registration numbers assigned and written on cards		
Grade of bilateral pitting oedema measured accurately		
Mid-upper arm circumference (MUAC) measured accurately		
Weight measured accurately		
Admission is according to correct criteria (spot check monitoring cards)		
Routine medications given according to protocol and recorded accurately		
Ration given		
Appropriate education given to mothers		<i>Note topic:</i>
Cases for follow up are correctly identified		
Priorities for follow up home visits are discussed with a outreach worker if needed		
Follow-up carried out		
Beneficiaries discharged according to protocol		
Correct number of absentees/defaulters passed to outreach worker for follow up		
Reports correctly completed (spot check)		
Appropriate IYCF/health education given to mothers/caregivers at home		
Outreach worker feedback provided on a timely basis (before the next session)		

RECOMMENDATIONS: \_\_\_\_\_ IMMEDIATE ACTION TAKEN: \_\_\_\_\_

**OUTPATIENT CARE**

Health Facility: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_

Name of Health Care providers present: \_\_\_\_\_

Name of Supervisor : \_\_\_\_\_

Quality ++ Needs improvement + Weak 0 Not done/done incorrectly	Discussed Y/N	Comments
Number of staff present		Staff
Staff greet the mothers/caregivers and are friendly and helpful		
Registration numbers assigned and written on cards		
Grade of bilateral pitting oedema measured accurately		
Mid-upper arm circumference (MUAC) measured accurately		
Weight measured accurately		
Admission is according to correct criteria (spot check monitoring cards)		
Medical history recorded accurately		
Physical examination performed accurately		
Child's appetite assessed using (RUTF) (on admission and at all followon visits)		<i>Note topic:</i>
Routine medications given according to protocol and recorded accurately		
Amount of RUTF needed is correctly calculated		
Appropriate education given to mothers		
Follow-on medicines given according to protocol and recorded accurately		
Cases for follow up are correctly identified		
Reports correctly completed (spot check)		
Priorities for follow up home visits are discussed with a outreach worker if needed		
Follow-up carried out		
Beneficiaries discharged according to protocol		

RECOMMENDATIONS: \_\_\_\_\_ IMMEDIATE ACTION TAKEN: \_\_\_\_\_





Staff greet the mothers/caregivers and are friendly and helpful		
Correct number of absentees/defaulters passed to outreach worker for follow up		
Reports correctly completed (spot check)		
Appropriate IYCF/health education given to mothers/caregivers at home		
Mother/caregiver referred for additional care or services if appropriate		
Timely and appropriate referral to the clinician made for non-responders		
Follow-up carried out		
Outreach worker feedback provided on a timely basis (before the next outpatient session)		

RECOMMENDATIONS: \_\_\_\_\_

IMMEDIATE ACTION TAKEN: \_\_\_\_\_

RESOURCES NEEDED: \_\_\_\_\_

**INPATIENT CARE<sup>1</sup>****Checklist for Inpatient Care - Ward Procedures**

Health Facility: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_

Name of Supervisor : \_\_\_\_\_

OBSERVE	Yes	No	Comments
<b>Feeding</b>			
Are feeds prepared correctly with appropriate hygiene?			
Are correct feeds served in correct amounts?			
Are feeds given at the prescribed times, even on nights and weekends? (timings)			
Are children held and encouraged to eat (never left alone to feed)?			
Are children fed with a cup (never a bottle or other)?			
Is food intake (and vomiting/diarrhoea) recorded after each feed?			
Are leftovers recorded accurately and removed?			
Are leftovers recorded accurately and removed?			
Are amounts of F75 adapted with weight changes?			<i>Note topic:</i>
Are milk amounts correctly measured and are leftovers discarded after use if no refrigeration?			
Are safe measures used for rewarming children?			
Are temperatures taken and recorded correctly?			
<b>Weighing</b>			
Are scales functioning correctly and standardised?			
Are weights taken correctly? Do staff adjust the scale to zero before weighing?			

<sup>1</sup>Adapted from: WHO. 2002. Training Course on the Management of Severe Malnutrition. Geneva: WHO.



<b>Giving medications AND supplements</b>		
Are antibiotics given as prescribed (correct dose at correct time) and recorded?		
Is folic acid given daily and recorded?		
Is vitamin A given according to schedule?		
Are medical complications treated correctly as per the protocol?		
Is there a good level of hygiene?		
Is the stabilisation centre clean?		
Are the patient cards filled in accurately?		
Are the reports filled in accurately?		







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