

Chapter 7

Outpatient Therapeutic Programme



The Outpatient Therapeutic Programme provides medical treatment and food in the form of RUTF for severely malnourished children with appetite through weekly visits to decentralised sites.

7. OUTPATIENT THERAPEUTIC PROGRAMME

The majority of severely acutely malnourished children are treated in the outpatient therapeutic feeding component of a CTC programme. The OTP provides home-based treatment and rehabilitation for children who are severely acutely malnourished but who have appetite and are free of medical complications. Around 85%-90% of severely acutely malnourished children are normally treated in the OTP. Children can be admitted directly into the OTP, treated with routine drugs and given RUTF to eat at home. They attend the OTP every week for a medical check up, to receive additional medical treatments if required and to be given their one-week supply of RUTF. This chapter describes issues involved in the planning of an OTP, the admission and discharge criteria that define its target group, the treatment provided and protocols used, and the data that needs to be collected to enable effective monitoring and evaluation.

7.1 Planning

An OTP is implemented through a large number of decentralised points. Existing health structures are used wherever possible and appropriate. There should be an OTP at as many MoH or other health facilities as possible. If there is no such structure, an OTP can be run from a temporary shelter such as under a tree or in a community building or other space offered by the community.

In planning the location, number and schedule of OTP days, the following should be considered:

- The availability and capacity of existing health facilities.
- The distance people will need to travel to reach the service; ideally, OTP facilities should be a maximum of three hours' walk away (a one-day round trip).
- The predicted number of target beneficiaries according to nutrition survey findings, where available.
- The opinions of key community figures on appropriate sites.
- Areas with the highest malnutrition levels, either according to existing data or local opinion where data is lacking.
- How access to sites may be affected by climate or other factors (e.g. rain affecting roads and river crossings).

- The timing of market days and general distribution days, and the schedule for health facilities' outreach activity (i.e. days when health centre/clinic workers are away from their facility).

During a nutritional emergency, the OTP should always be run alongside an SFP. The OTP and SFP should be close to each other, but sufficiently separate so that the OTP is not disturbed by the large numbers attending the SFP.

OTPs can also be implemented in non-emergency settings (i.e. relatively food-secure situations) where there are severely acutely malnourished children who require therapeutic care as part of the primary health care service. The OTP offers a way for clinics to treat the severely acutely malnourished and prevent excess mortality. In these circumstances, it may not be necessary or feasible to set up an SFP as well as the OTP (see Section 4.3).

7.1.1 Staff

The OTP is run by clinic staff who are ideally at the level of a nurse or where MoH policy allows, a health worker. They are given specific CTC training and support throughout the programme. If the number of severely acutely malnourished children is low, it may be possible for the existing MoH staff to do the screening, admission and follow up themselves. A clinic worker treating OTP children as well as their existing caseload may be able to treat ten to fifteen OTP children in a day. If sites are able to admit and follow up OTP children on any clinic day, the numbers of cases they can treat each week may be considerably more. Support staff, such as cashiers and guards, can be trained to take measurements and perform other tasks. If numbers are high (particularly during emergencies and at the start of a programme), and clinic staff are stretched beyond their capacities, additional support staff will be needed to do measurements, treat children and supervise the programme.

If there are insufficient staff based at each site, or temporary programme sites have to be set up, they may be managed by mobile teams. Each team can usually visit five sites a week (more if the sites are close together). Each mobile team should comprise four team members:

- A team leader, who should be a qualified health worker (a nurse or medical assistant).

- Two measurers, to carry out measures on the children. They can also help the OTP team leader with tasks such as counting packets of RUTF and checking that carers understand instructions given by the team leader. They may be part of the mobile team or they could be extension workers based at programme sites who, on non-programme days, lead mobilisation and follow-up activities in their area.
- One assistant for the health worker (if numbers at the programme site make it necessary).

In addition, an overall CTC supervisor is needed to manage the teams and ensure coherence between the SFP, OTP, SC and community components of the programme.

As a general rule one health worker, with support for taking measurements, can treat up to thirty children on a programme day. If there is a high proportion of new admissions, or if health workers are new to CTC, twenty children per day is a more realistic guide.

An initial one or two days' training is normally sufficient for OTP teams. A suggested plan for a training day is given in Annex 15. This must be followed immediately by on-site training. A trainer or the CTC supervisor should work with clinic or NGO staff as they admit and follow up children in the clinics. Direct supervision should be given for at least the first two days when children are being admitted for the first time, and then for the first follow-up a week later. Supervision should include decision-making concerning transfer to inpatient care.

7.1.2 Equipment and Supplies

The equipment and supplies needed for an OTP are listed in Annex 16. This annex includes a table to calculate the quantities of RUTF required. All equipment and supplies, including the RUTF, can be either kept and managed at clinics stores if there is capacity, or transported by mobile teams in a strong equipment box. If numbers are small and storage sufficient, SFP food may also be kept at clinics. If numbers are large, however, a network of main and sub-stores will be needed for provision of supplementary food at programme sites. Transport is also needed for the small number of children who have to be transferred to the stabilisation centre. In an emergency context, transport is normally provided by the implementing NGO. In a longer-term programme, a transport provider must be identified.

7.2 Target Group and Admission/Discharge Criteria

The target group for CTC to date is primarily children aged 6-59 months. Other severely acutely malnourished individuals such as adolescents and adults who are identified according to standard assessment criteria may be admitted to the OTP and the protocols adapted accordingly (Woodruff and Duffield, 2000) (Collins et al., 2000). Severely malnourished infants should be transferred to the stabilisation centre (see Chapter 8).

7.2.1 Admission Criteria

Children are screened, referred and admitted by MUAC and presence of bilateral pitting oedema (see Annex 1 for definitions of grades of oedema). Figure 13 (overleaf on page 76), describes the admission criteria that apply to OTP.

If children fulfil any of the above criteria, they are given a medical check and their appetite is assessed. Children can be admitted directly to the OTP as long as they have no major medical complications and are able to eat the RUTF.

The child's medical condition is assessed by a health worker. The assessment includes a history of the child's condition, taken from the carer. The health worker also gives the child a full medical examination to rule out complications requiring inpatient care. The examination includes checks for oedema, appetite, vomiting, temperature, respiration rate, anaemia, superficial infections, alertness and hydration status⁷. All information from the medical check is recorded on the child's OTP card (an example is given in Annex 17).

Appetite is assessed by giving the child some RUTF to try at the site. A child may refuse to eat RUTF because it is unfamiliar and because the child is in a strange environment. In this case, the carer should move to a quiet, private area and slowly encourage the child to take the RUTF. This may take some time. It is, however, essential that the health worker observes the child eating the RUTF before the child can be accepted for outpatient treatment. A child who continues to refuse to eat should be sent to the SC for inpatient care until appetite is re-established. Appetite must be tested

⁷ Due to the difficulties of using standard clinic signs to identify dehydration in the severely malnourished child, this is based primarily on recent history of diarrhoea, vomiting, fever and sweating, and on recent changes in the standard clinical signs of dehydration (WHO, 2000/b) as reported by the carer.

each time the child visits the OTP as lack of appetite may indicate a deterioration in nutritional status and poor liver or gastrointestinal function.

Figure 13: OTP Admission Criteria (all with appetite and free from severe medical complications).

New Admissions Children aged 6-59 months (or ≥ 60 months - up to height 130cm)	Bilateral oedema grade + or ++ AND MUAC ≥ 110 mm. <hr/> MUAC < 110mm* (See Chapter 2).
Other Admissions	Admissions who do not fulfil age criteria (e.g. teenagers, adults) or anthropometrical criteria for admission (e.g. clinically very wasted moderate cases who had complications and need closer monitoring in OTP after stabilisation).
Choice	Carer refuses inpatient care despite advice (though these are treated as a new admission).
Inpatient Discharges	From inpatient care (SC/TFC/nutrition rehabilitation unit (NRU)/hospital) after 'stabilisation' treatment.**
Readmission / Relapse	Previously discharged as cured, but again fulfils OTP criteria.
Returned	After defaulting, or from inpatient care (hospital/TFC/SC).***

* If current national guidelines require, < 70% weight for height can be used as well as MUAC.

** In addition, infants who have been discharged from the SC can be admitted to the OTP so that their weight and general medical condition can continue to be monitored. They do not receive RUTF.

*** Returned defaulters are readmitted into the programme to complete their treatment if, on return, they have not yet reached the criteria for discharge.

7.2.2 Discharge Criteria

The discharge criteria currently in use are shown in Figure 14. In addition, any child discharged as cured from the OTP should be clinically well. Where MUAC admission criteria are being used (see Chapter 2), children should also remain in the OTP programme for a minimum of two months as some may reach discharge criteria by WHM within a few weeks, even though their MUAC remains low, and consequent mortality risk remains high.

Figure 14: OTP Discharge Criteria

Discharged cured*	Minimum stay of two months in the programme, MUAC >110mm, no oedema for two consecutive weighings, sustained weight gain** and clinically well.***
Defaulted	Absent for three consecutive weeks.
Died	Died during time registered in OTP.
Transferred to inpatient care	Condition has deteriorated and requires inpatient therapeutic (SC/TFC/NRU) or hospital care.
Non-cured	Has not reached discharge criteria within four months.****

* All OTP discharges should be sent to the SFP where they stay for a minimum of two months (longer if they have not attained the SFP discharge criteria by that time).

** Sustained weight gain is a gain in weight every week for two consecutive weeks.

*** Where national guidelines require the use of WHM for admission, discharge should be when the child reaches 80% weight for height and no oedema for two consecutive weighings and is clinically well.

**** Before this time, children must have been followed-up at home and should be transferred to SC inpatient care for investigations where possible. Discharged non-cured children should be sent to the SFP; they can be readmitted to the OTP if they fulfil entry criteria again and are therefore once more at high risk of mortality. No child should be discharged as non-cured if their MUAC is still <110mm.

7.2.3 Modifications to Admission and Discharge Criteria in the Absence of SFP

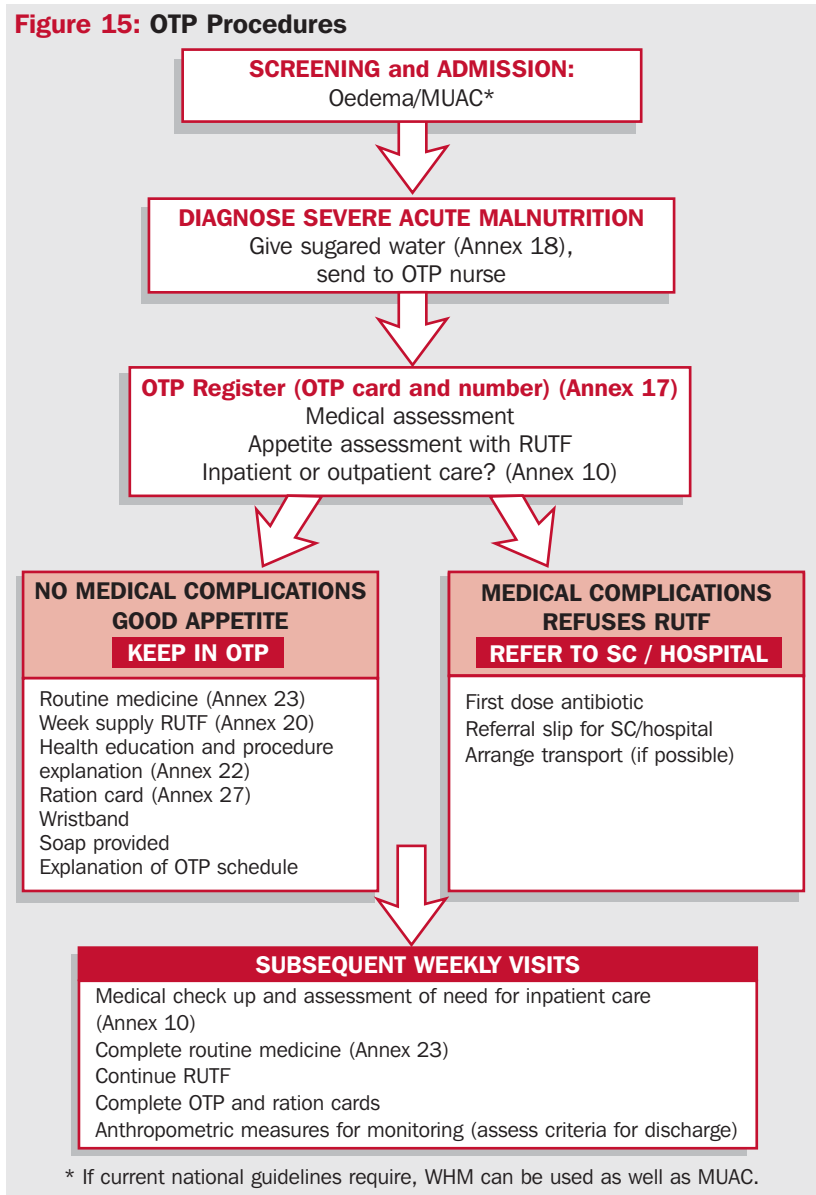
In some situations there may be no SFP. This can be because the SFP has not yet been set up due to a lack of resources or capacity, or if the situation is relatively food secure and an SFP is not required.

In these situations, admission and/or discharge criteria of OTP may be increased. Admission criteria can be increased to MUAC 115mm (or if current national guidelines require 72% or 75% WHM) to ensure that children at risk are identified and to prevent further decline. Discharge criteria can also be increased to a longer minimum length of stay (or 85% WHM where national guidelines require), in order to ensure recovery and avoid readmission.

On arrival at the OTP, all children are given sugared water (10% solution) to aid general hydration (see Annex 18) while they are waiting to be assessed by a health worker. Health workers should move through the lines to triage obviously urgent cases to examine them first. OTP admission procedures are shown in Figure 15.

7.3 Treatment Protocols and Procedures

Figure 15: OTP Procedures



See Annex 19 for a pictorial diagram of OTP procedures.

7.3.1 Nutritional Treatment

Nutritional treatment is through the use of RUTF, an energy-dense mineral and vitamin-enriched food designed to treat severe acute malnutrition. It has a similar nutrient profile but greater energy and nutrient density than F100 the diet recommended by the WHO in the recovery phase of the treatment of severe acute malnutrition (Briend et al., 1999).

RUTF typically used in CTC programmes is oil-based: it does not have to be mixed with water and therefore avoids problems of contamination if clean water is not available for mixing and if storage of the mixed food is inadequate. The amount of RUTF a child should consume is determined by the need for an intake of about 200kcal per kilogram of body weight per day (200kcal/kg/day). This is the same energy level as a child in phase 2 of treatment in an inpatient setting and is sufficient to begin the rehabilitation of a severely acutely malnourished child. The number of packets consumed per day is based on the weight of the child and simplified to make it easier for the carer to follow (see Annex 20).

Experience shows that in the case of twins where one is severely acutely malnourished and the other is not, sharing of RUTF between the twins can be assumed. In this case the severely acutely malnourished twin should be registered and given a double ration of RUTF to compensate for this.

Non-oil based therapeutic foods such as BP100 are sometimes used in emergency situations. BP100 is a solid food based on the F100 formula with some iron added. It can be eaten as a biscuit or as a porridge mixed with water or breast milk (the porridge is recommended for children under two years). Because of this need to mix the BP100 biscuit with water or breast milk for the younger age group, CTC programmes recommend that where BP100 is used it is in combination with oil-based RUTF. This ensures that the younger children also have a ready-to use food that does not require mixing (see Annex 21).

The carer is taught how to open the packet and to give RUTF to the child in small frequent amounts (up to eight times a day), carers are also encouraged to allow their child to finish all of the allocated daily ration each day before giving the child any other food. If the mother is still breastfeeding, she is advised to continue breastfeeding as before and give the RUTF after breast milk. Apart from breast milk carers are advised, at least for the initial weeks of treatment, to give RUTF and no other foods to the child. Health workers must emphasise that the RUTF is both a medicine

and a food, and that it is vital to the recovery of the child. They must also explain that water should always be given to a child eating RUTF to maintain sufficient hydration. Carers are also asked to return empty packets of RUTF each week. This is meant to avoid littering (packets can then be buried or burnt) rather than as a 'policing' method to ensure that packets are not sold. (See key messages in Annex 22).

A ration of CSB/UNIMIX is also given to the carer. This is provided for the other children in the family to try to avoid the RUTF being shared. It is given every two weeks as part of the supplementary feeding programme and may vary between 1000 and 1200kcal/person/day. Where OTP is functioning without an SFP in a non-emergency setting, it may not always be possible to supply this ration, though in such contexts we would expect the general food security of the household to be such that sharing of RUTF is less of a risk.

On discharge from the OTP to the SFP each child is given seven packets of RUTF and the normal SFP ration. This is to ensure that RUTF is not removed too abruptly from the child's diet. Carers of children approaching discharge should be encouraged to begin feeding more of the supplementary food in addition to the RUTF ration.

7.3.2 Medicines

Routine medicines are given to all children admitted to the OTP. Treatment is based on the principles used for medical treatment in a TFC and drugs are based on the Essential Drug List for the country and should be adapted to national protocols. (See routine medicines protocol Annex 23 and drug dosages Annex 24). The protocol has been adapted so that, where possible, medicines are given as a single dose which means that the health worker can observe them being taken and avoid problems with compliance. The exception is the first line antibiotic, Amoxycillin. The first dose of Amoxycillin should be given in front of the health worker and a clear explanation given to the carer on how to continue the treatment at home. The carer should then be asked to repeat the instructions back to the health worker to make sure he/she has clearly understood the dose instructions. Additional medicines are given to children based on clinical diagnosis during each weekly medical check according to protocols. Supplemental medicines are given in Annex 25 and the rationale for all medical protocols is given in Annex 26.

7.3.3 Health Education

When a child is first admitted to the programme, it is essential to ensure that information about how to give RUTF, how to take the antibiotic at home and basic hygiene are clearly understood. Key messages have been developed for this (see Annex 22). No other health education messages should be given on the first visit to avoid overloading the carer with new information. It is also important to encourage carers to return to the clinic at any time between OTP visits if their child's condition deteriorates. At the end of the first OTP visit, it is vital to check whether carers have understood the advice given by the health worker by asking some simple questions before they leave.

To accompany basic hygiene messages, soap should be given to all OTP carers every two weeks so that carers can wash their hands and the child's hands before feeding of RUTF. Additional health, nutrition and hygiene messages can be provided during follow-up visits to the OTP site each week, as part of an extended health and nutrition education programme. These messages should be based on discussion with the target group to identify appropriate messages and vehicles of communication. Links should be made with any existing programmes providing health and nutrition education at community level.

7.3.4 Follow-Up

Children's progress is monitored on a weekly basis at the programme site.⁸ It can also be monitored for particular cases, where required, through visits by outreach workers or volunteers, so that issues can be discussed in the home environment. CTC experience to date has been that routine home follow-up between clinic visits is not required. However, in some cases follow-up is called for to check whether a child should be referred back to the clinic between visits and to discuss aspects of the home environment that may be affecting the child's progress in the OTP (see Annex 10). Cases include instances where health workers have identified weight loss or mild deterioration in the medical condition, where the carer has refused admission to the SC, and cases in the first two weeks after discharge from the SC. In these situations, the need for follow-up is identified by the health worker after discussion with the carer. The health worker can then liaise with outreach workers or volunteers.

⁸ If access is difficult or the capacity of health services is limited, monitoring may be carried out every two weeks.

All absences from the OTP should be followed up by outreach teams, volunteers, key community figures or other carers. It is important to gain an understanding of the reason for absence and to encourage return. The absentee should not be reprimanded as this can discourage return. Instead, information on reasons for absence should be used to see if there are ways that the organisation of the programme could be modified to facilitate carers being able to attend each distribution.

7.3.5 Links to Other Programmes

The CTC model actively encourages links between the CTC programme and other sectors such as general food distributions, health education, food security and water and sanitation. Advocacy for beneficiaries to be enrolled in general ration programmes is important. Information gained through carers in the OTP programme may help in understanding the needs of the population in the area, and therefore help with the design of programmes in other sectors. However, the OTP should not be used as the only indicator of poverty for targeting non-health and non-nutrition inputs: OTP beneficiaries are a small and manageable group for the targeting of additional inputs, but it is inappropriate to assume that they are the most in need.

7.4 Data Collection and Monitoring

Essential data are recorded to ensure the child can be tracked through the CTC programme components, ensure the follow up of defaulters, and to monitor the effectiveness of the programme. (The CTC monitoring system and procedures are covered in detail in Chapter 9).

When an eligible child arrives at the OTP site, the health worker begins to fill out an OTP card (see Annex 17). All OTP cards should be kept in a file, which can either stay at the clinic or move around with the mobile teams. The file should have divisions so that cards of the defaulters, deaths, recovered and transfers can be filed separately.

A ration card is also filled out with basic information about the child; this is updated on each visit (see Annex 27). The card stays with the carer as a record of the child's progress. Carers should bring the card with them to the site each week. On discharge, the card should be marked as exited from the programme, but it should stay with the carer when they go to the SFP. A non-removable wristband is also given to the child marked with his or her registration number.

If the child is assessed to have poor appetite, grade three oedema or major medical complications, the OTP card is still completed and an OTP number assigned but the carer is also given a transfer slip and the child is taken to the SC for inpatient care. The OTP card will stay at the OTP site in a separate section in the OTP file until the child returns after stabilisation treatment.

Once a child has been assigned a number on entry to the CTC (either at SFP, OTP or SC) they retain the same case number in all CTC programme records, including the OTP card, OTP ration card and the identification wristband and SFP card when discharged recovered. This enables monitoring data on the child to be tracked in different programme components (SFP, OTP and SC).

At the end of each programme day, the health worker or supervisor fills in a tally sheet that records OTP activity and outcomes. The number of children registered in the programme is checked against the number of 'active' cards in the file, (i.e. not including exits). The tally sheet is used in monitoring the overall effectiveness of the programme.

Chapter 8

Stabilisation Care



Children with severe medical complications or no appetite are treated in small inpatient facilities like this paediatric ward of the general hospital Blantyre, Malawi.

8. STABILISATION CARE

In a CTC programme, intensive inpatient care is provided in stabilisation centres. These cater for the small proportion of children with acute malnutrition, complicated by anorexia, severe medical complications, or severe oedema. These children are at the highest risk of death and receive 24-hour care until their condition is stabilised and appetite returns. Normally around 10%-15% of severely acutely malnourished children admitted into the programme require treatment in the SC. SCs are therefore small (a maximum of thirty children) and operate with few staff and infrastructural requirements.

This chapter describes the key issues involved in the planning of an SC, the admission and discharge criteria that define the target group, the treatment provided and protocols used, and the data collected for monitoring.

8.1 Planning

The SC focuses on treatment for a small number of complicated cases. Its impact on the malnourished population is therefore small in comparison to the other components of an emergency CTC programme. The priority at the start of a CTC programme is to reach the majority of children by focusing time and resources on establishing the OTP and SFP and maximising community mobilisation. In emergencies, alternatives should be explored for transporting complicated cases to existing TFCs run by other organisations, or to hospital paediatric wards with some nutritional capacity.

Like OTP sites, stabilisation care should be set up within existing structures and, where possible, with existing MoH staff. This allows paediatric capacity in hospitals or health centres to be strengthened. It also means that inpatient facilities can be set up quickly as infrastructure and staffing already exist. As often some treatment protocols are already in place, the programme may only need to discuss protocols and systems with health staff and provide training and supplies. Decisions regarding the opening and location of the inpatient SC should be taken jointly with the local MoH, where this is possible and appropriate, and should take into account existing capacity (e.g. staff, bed space, 24-hour cover). Local health authorities should lead the detailed planning for the SC in order to gain a sense of ownership and to ensure the integration of the SC into the wider management of health facilities. In all cases discussion and agreement on CTC protocols with senior MoH staff is essential.

Where there is insufficient local capacity, or where it is not appropriate to work with government institutions (in some conflict situations, for example), separate small SC facilities need to be set up.

SCs require relatively little infrastructure and only one or two skilled medical staff. The resources needed are largely determined by the context in which the SC is set up, the degree of integration with local structures and the expected caseload. A larger number of admissions can be expected at the beginning of an emergency, when many cases will be presenting in an advanced state of malnutrition. However, case turnover is usually quick. The length of stay is normally a maximum of seven to ten days, and the initial influx of cases can be treated and discharged quite rapidly. The number of complicated cases is likely to decline as the OTP and SFP programmes expand their coverage and treat more cases of acute malnutrition before complications develop. A surge in admissions is possible if, for example, there is population movement with high numbers of malnourished, or an epidemic or seasonal disease outbreak occurs.

8.1.1 Staff

There are no strict rules on how staff roles are filled in an SC; it all depends on the level of integration with local structures and the capacity and staff of those structures. The SC should aim to adhere to the SPHERE recommendation of one feeding assistant/health worker per ten inpatients. The following staff roles are required:

- Health staff: a minimum of one per shift for 24-hour care. Staff should be qualified according to national policy.
- Nutrition/assistant health staff: the number and role vary according to patient numbers. Assistants are primarily responsible for helping health staff, in particular at meal times and during medication rounds.
- Support staff: to prepare or help prepare therapeutic milk and food for carers and to clean the SC.
- NGO liaison/support staff: to facilitate admissions and discharges and to help with coordination with other components of the programme, liaison with local MoH (if the SC is a Ministry facility), transport arrangements for referrals, reporting and troubleshooting. Liaison staff have an advisory or training role and are not responsible for the direct care of children.

The physiology and medical treatment of the severely acutely malnourished is very different from that of normally nourished children. A short orientation

period in the OTP is useful, even for nursing and medical staff who have previous experience in this area. In particular, it makes staff more confident in following SC discharge guidelines, keeping the length of stay in the SC short and allowing resources to be used more efficiently.

8.1.2 Equipment and Supplies

The supplies and equipment needed for an SC are generally the same as those required for phase 1 care in a TFC albeit for a smaller number of children. The main requirements are:

- F75 therapeutic milk and RUTF.
- Essential medicines and medical equipment.
- Food for the carers and others accompanying inpatients. As far as possible this should be according to local preferences.
- Soap for washing hands and general hygiene.
- Reliable source of clean water.
- Equipment for food preparation and distribution (jugs, cups etc.).
- Protocols and supporting documents (WHO and national guidelines).

Where the SC is integrated into existing MoH services, most of the equipment may already be available. In addition, transport is needed to take discharged children and their carer home. In emergency contexts, transport is normally provided by the implementing NGO. In development programmes an alternative transport provider must be identified.

8.2 Target Group and Admission/Discharge Criteria

The target group for CTC to date is primarily children 6-59 months. Other severely acutely malnourished individuals such as adolescents and adults who are identified according to standard assessment criteria may be admitted to the SC and the protocols adapted accordingly (Woodruff and Duffield, 2000) (Collins et al., 2000). Severely malnourished infants should be admitted to the stabilisation centre and treated according to WHO protocols (Interagency Working Group, 2001) and (ENN et al., 2004) (see Section 8.2.1).

8.2.1 Admission Criteria

Children are admitted to the SC either directly through self-referral or, more commonly, by transfer from the OTP or SFP according to the medical action protocol (see Annex 10) because they have severe acute malnutrition with complications or lack of appetite.

Oedema. Oedema of + or ++ without severe complications can be treated successfully in an outpatient setting. However children with oedema of +++ or with Marasmic-Kwashiorkor should be transferred to the SC.

Appetite. A poor appetite, demonstrated by refusal of RUTF, may be the result of poor liver and/or gut function due to severe acute malnutrition. Alternatively, it may be due to infection or could be a behavioural issue. These causes can be difficult to distinguish and the carer should spend time trying to coax the child to eat the RUTF. Continued refusal indicates admission to the SC.

Medical Complications. Underlying or acute medical conditions other than those outlined above may require specialised diagnosis and treatment which is not available in the SC. These cases should be identified and referred for medical treatment to an appropriate facility, such as a hospital or TFC. If the child is referred to hospital for medical treatment they can continue to be registered in the CTC programme and return once their treatment is complete. If the child has appetite and the hospital lacks nutritional care, the child can be sent with one week's supply of RUTF. If the child's stay in the hospital is prolonged, an arrangement may need to be made to provide an additional supply of RUTF.

Infants. Infants younger than six months with WHM <70%, oedema or visible wasting may be admitted initially to the SC to receive special inpatient care. Management of infants requires a combination of:

- Improved or re-established breastfeeding (unless the infant has to be artificially fed);
- Temporary or longer term therapeutic feeding; and
- Nutritional, psychological and medical care for mothers.

Feeding severely acutely malnourished young infants is labour intensive and requires different skills to those needed for older children. Training is essential for staff to understand the particular needs of malnourished infants. For detailed treatment guidelines, see *Infant and Young Child Feeding in Emergencies* that have been developed as a joint effort by WHO, UNICEF, UNHCR, WFP and international NGOs (Interagency Working Group, 2001) and (ENN et al., 2004) and the 2004 review of current WHO guidelines (WHO, 2004).

Figure 16: SC Admission Criteria

New Admissions Children 6-59 months (or including >=60 months and up to 130 cm height)	Anthropometry/oedema	Bilateral oedema grade +++ or Marasmic-Kwashiorkor*. MUAC <125mm**, Bilateral oedema grade + or ++ AND no appetite/severe medical complications.
	Appetite	No appetite or unable to eat test dose of RUTF.
	Severe medical complications	Intractable vomiting.
		Fever > 39°C or hypothermia < 35°C. Lower respiratory tract infection according to IMCI guidelines for age: <ul style="list-style-type: none"> • ≥ 60 respirations/minute for under two-months. • ≥ 50 respirations/minute from two to twelve months. • ≥ 40 respirations/minute from one to five years. • ≥ 30 respirations/minute for over five years.
		Any chest in-drawing.
		Severe anaemia – very pale (severe palmar pallor), difficulty breathing.
		Extensive superficial infection requiring intramuscular (IM) treatment
		Very weak, apathetic, unconscious, convulsions.
Severe dehydration based primarily on recent history of diarrhoea, vomiting, fever or sweating and on recent appearance of clinical signs of dehydration as reported by the carer.		
Other Admissions	Severely acutely malnourished infants under six months of age – see Section on Infants below.	
Choice	Carer refuses outpatient care.	
Transfer***	From OTP due to: <ul style="list-style-type: none"> • Severe medical complication or anorexia. • Worsening oedema. • Weight loss for three weeks. • Non recovery after three months in the OTP programme. From SFP due to : <ul style="list-style-type: none"> • Severe medical complications.**** 	
Readmission/Relapse	Previously discharged and again fulfils criteria.	

* Marasmic-Kwashiorkor – a child with MUAC<110mm or WHM<70% who also has oedema grade +, ++ or +++

** If current national guidelines require, < 80% WHM can be used as well as MUAC.

*** Transfer is according to the action protocol for OTP (see Annex 10). Before admission to the SC, the reasons for non-recovery in the OTP should be investigated by discussion with the carer at the programme site and through home visits by the outreach team.

**** These children are referred to the SC for treatment of life-threatening medical complications whilst also receiving nutritional support to prevent nutritional deterioration.

8.2.2 Discharge Criteria

Children discharged from the SC are transferred to the nearest OTP to continue their therapeutic treatment, except moderately malnourished children, who are referred to the SC from the SFP on development of medical complications. These children can be discharged directly back to the SFP once their complications have resolved.

Figure 17: SC Discharge Criteria

Appetite	Appetite returned (eats at least 75% of RUTF). *
Medical Complications**	Controlled.
Oedema	Resolving.

* Eating 75% of the RUTF ration would provide the child with the minimum requirement of 150kcal/kg/day.

** These should be resolved before transfer to the OTP for continued therapeutic feeding. Where the condition is chronic, the symptoms should be controlled by giving appropriate medical treatment in the outpatient setting.

If at any point a carer no longer wants to stay in the SC, the importance of treating the child should be explained. If they still want to leave, the child should be transferred to the OTP to continue treatment, with follow-up by the outreach/volunteer team.

All children discharged from the SC are a priority for outreach follow-up during their first week in the OTP (see Annex 10). Home visits support the carer with any problems in feeding the child, and ensure that the child is referred to the nearest health facility if his/her condition deteriorates. If a child dies in the SC, the cause of death should be reported as required by local regulations and, if applicable, in accordance with regulations concerning notifiable diseases. If possible, help should be given to transport the bereaved carer and the child's body to their home.

8.3 Treatment Protocols and Procedures

Medical and nutritional treatment for severely malnourished children and infants in the stabilisation centre should be carried out according to standard WHO protocols for phase 1 inpatient care. This section should therefore be used alongside:

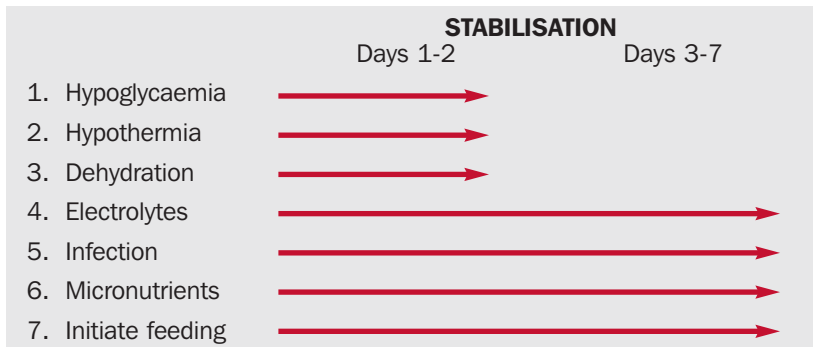
- WHO. *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, Geneva, 1999.
- WHO. *Report of a Consultation to Review Current Literature on Severe Malnutrition*, Geneva, 2004.
- WHO. 'Management of the Child with Serious Infection or Severe Malnutrition: Guidelines for Care at the First-Referral Level in Developing Countries'. *WHO Department of Child and Adolescent Health and Development*, Geneva, 2000.

These guidelines provide detailed information on the ten step treatment of severely acutely malnourished children. The first seven steps are appropriate for treatment in the stabilisation centre before the child is discharged to OTP; they are outlined in Figure 18.

Care in the SC follows standard protocols for the initial stage of inpatient treatment for severe acute malnutrition. Life-threatening problems are identified and treated, specific deficiencies are corrected, metabolic abnormalities are reversed and feeding is begun. The process should take four to seven days to complete.

Medical treatment for moderately malnourished children referred to the SC as a result of medical complications should be according to WHO/IMCI protocols for the management of the child with serious infection and standard WHO paediatric treatment protocols (WHO, 2000/b). RUTF should be given to these children during their stay to prevent nutritional deterioration.

Figure 18: Timeframe for the Management of a Child with Severe Malnutrition (WHO, 2000/b)



When these seven steps have been accomplished, the child's appetite for RUTF is tested (on day five, six or seven) (see Section 8.3.2), to determine whether they can be transferred to the OTP for continued nutritional rehabilitation. Discharge should take place (see Section 8.3.6) once the child can eat more than 75% of their RUTF ration, medical complications are controlled and oedema is resolving (maximum seven to ten days).

Where possible, SC protocols should be integrated with existing national drug and feeding protocols provided that they follow the principles of care for this patient group set out in the WHO manual (WHO, 1999/a).

8.3.1 On Admission

Transfers to the SC are triaged and the most urgent cases treated first. When first seen, the child must be examined, a history and measurements taken and a decision made on the treatment to be given. Treatment should begin immediately after the history and examination are completed. For children coming from the OTP or SFP, anthropometric measurements (weight, height, MUAC) and other information will already have been taken and recorded on a transfer slip and use of this information can speed up the process. (A sample transfer slip is given in Annex 28).

Treatment for severely malnourished children then begins according to the seven steps outlined in Figure 18.

All details are recorded on the patient card and the admission register is completed using the case number that was assigned by the OTP/SFP. Direct admissions are assigned a number with an SC code on it. If the child does not already have one, an identity bracelet with the case number is fastened to his/her leg. SC routines and treatments are explained to the carer, including meal times, good hygiene routines and safe feeding methods. Carers should also be given soap for hand-washing and general hygiene.

8.3.2 Nutritional Treatment

Initial nutritional treatment for the majority of children is provided with F75 therapeutic milk feeds (100kcal/kg/day) at regular intervals according to the WHO protocol. Depending on the context and the capacity of the SC, feed may either be at regular three-hourly intervals (thus eight feeds in 24 hours), or five or six feeds at regular intervals throughout the day.

Infants less than six months of age are also treated with F75 (or expressed breast milk, if available) according to the protocol for infant feeding in

emergencies (WHO, 2004) (Interagency Working Group, 2001). These children should not be given RUTF and appropriate breast feeding should be promoted at all times.

Following initial stabilisation care and nutrition treatment with F75, the child's appetite is assessed (on day 2-3 of treatment) by testing the desire to eat RUTF at alternate feeds. Once the child is able to eat at least 75% of their RUTF ration at each meal in a day, nutritional support can continue with RUTF (200kcal/kg/day) according to the RUTF protocol (see Annex 21). If the child refuses the RUTF, the carer is encouraged to try to get the child to start eating. In the meantime, F75 is continued until appetite returns. At this point, the correct use of RUTF and basic hygiene are discussed with the carer (see Annex 22).

Moderately malnourished children referred to the SC from the SFP with medical complications can be given RUTF immediately to prevent nutritional deterioration unless they do not have appetite (in which case they can initially be given F75).

Children transferred to the SC as a result of static weight or loss of weight, rather than with severe complications, may also be treated immediately with RUTF if they already have appetite. It is therefore important to conduct a medical check on admission in order to prescribe the correct diet. If a child's medical condition requires them to be transferred for further diagnosis or treatment to a medical facility that is not within the CTC programme, the child can remain registered in the CTC programme. If the child has appetite and the hospital lacks nutritional care, the child can be sent on with a supply of RUTF as noted above.

8.3.3 Medical Treatment

Medical treatment and protocols for severely malnourished children with complications in the SC follow standard WHO protocols for the seven steps of initial phase care. Protocols should also take national policy into account. Routine CTC medications should be given if they have not already been administered in OTP (see Annex 23 and Annex 24). Medication should be closely coordinated with the site that transferred the child.

Care must be taken in the calculation of weight-related paediatric dosing of medications. The routine use of IV fluids is discouraged and they should only be used to resuscitate severely acutely malnourished children from hypovolaemic collapse (shock). They should only be given by a skilled health

worker, experienced in the care of the severely acutely malnourished.

Medical treatment for moderately malnourished children referred to the SC for treatment of severe medical complications should be according to standard WHO/IMCI paediatric treatment protocols.

8.3.4 Observation and Monitoring

Meal times should be observed and the proportion of the feed consumed should be recorded, with any instances of vomiting noted so that appropriate and timely action can be taken if needed (e.g. inserting a nasogastric tube). The medical condition of the child should be fully checked each day. Routine observation should take place at least twice a day and more frequently according to the severity of the child's condition. Findings are recorded on the SC patient card, an example of which is in Annex 29.

The information on the patient card includes:

Personal information. Home location and the names of carers to enable follow-up after discharge or if the patient defaults.

Anthropometry. MUAC, weight and height are recorded on admission and the child's weight is then measured daily. This information is correlated with other medical findings to decide on the treatment to be given that day.

Feeding information. The proportion of the calculated feeds that the child consumes and any vomiting can be correlated with medical findings to determine treatment.

Clinical data/medical findings. Deterioration can occur quickly in severely acutely malnourished children, and this information is vital in making a correct diagnosis and providing timely treatment.

Medications. Indications for medications and their administration are recorded. Medical or assistant health staff should directly observe the medication being taken and the child's response to treatments and the therapy's outcome.

8.3.5 Hygiene

Stabilisation centres gather immuno-compromised children and their carers together, which means that it is vital that a reliable safe water source is obtained and standard hygiene practices are observed for sanitation,

general centre hygiene, storage, preparation and handling of food. It is essential that workers, carers and children wash their hands with soap after defecation and before handling food. Food should be hygienically prepared, thoroughly cooked and served promptly (cooked food should not be stored for more than two hours). All carers should be given soap on admission to the SC. Detailed hygiene standards and guidelines for therapeutic feeding centres and health facilities can be found in:

- SPHERE Project Team. *The SPHERE Humanitarian Charter and Minimum Standards in Disaster Response*. 2 ed. Geneva: The SPHERE Project, 2004.
- CDC. *Guidelines for Environmental Infection Control in Health-Care Facilities*, 2003.
- WHO. *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*, Geneva, 1999.

8.3.6 On Discharge

When a child is ready to be discharged, weight, height, MUAC and oedema are measured. The register and a discharge transfer slip are completed, including a summary section informing workers at the OTP of any medical interventions and medicines given to the child. The carer is supplied with a ration of RUTF and CSB or an equivalent (for the family) sufficient to last until the next OTP appointment. The key education messages regarding the correct use of RUTF and basic hygiene are discussed again with the carer (see Annex 22). Carers are also given any remaining medications and instructions on how to use them. It is important to check that these instructions have been understood.

Discharge from the SC may take place on any day, particularly if the SC is in a hospital. It is therefore important for the SC team or liaison officer to explain the following to the carer:

- The appropriate use of RUTF at home;
- The OTP follow-up routine;
- The next appointment at the OTP site; and
- Where they can seek urgent medical care if the child's condition deteriorates.

Where possible, the SC liaison officer should inform the OTP site to which the child is being transferred.

8.4 Data Collection and Monitoring

Essential data are recorded to ensure that the child can be tracked through the inpatient and outpatient therapeutic care process and to monitor the effectiveness of the programme. (The CTC monitoring system and procedures are covered in detail in Chapter 9).

8.4.1 Tracking the Child

Children transferred from the OTP/SFP to the SC have already been assigned an OTP/SFP number, and this is recorded on the child's individual patient card along with the other information from the transfer slip. On discharge from the SC, the child's number is recorded along with treatment information on a transfer slip that is taken to the OTP health worker or SFP team. Direct admissions are assigned a number at the SC. A child keeps this number for the duration of its time in the CTC programme.

8.4.2 Monitoring the Programme

Information on children transferred from the OTP is already included on the tally sheets. If one of these children defaults or dies in the SC, the supervisor of the OTP site should be informed by the SC team or liaison worker so they know not to expect their return. Information on direct SC admissions should be given to the OTP site to which they will be discharged, so that they are expected. In order to monitor the effectiveness of the SC, a simple register is kept recording all admissions and exits and tally sheets are filled in weekly.

