Treatment Guidelines
for
OUT PATIENT TREATMENT
in
Community Based
Management of Acute Malnutrition

NEPAL

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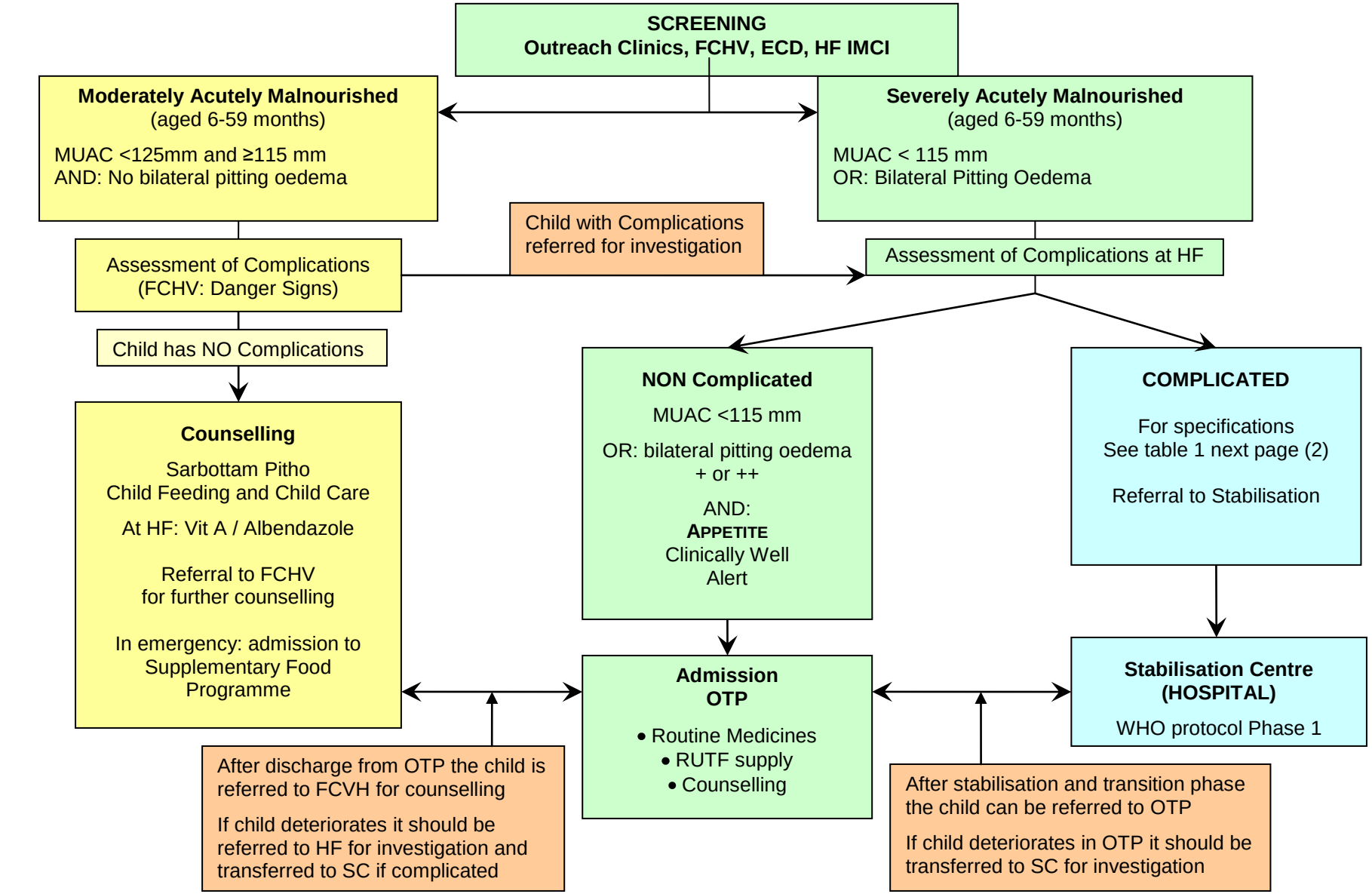
SCREENING AND REFERRAL LOGIC



Out-Patient Treatment Programme Guidelines

Target: Uncomplicated Severe Acute Malnutrition

Identified by: Children 6 months to 5 years **MUAC < 11.5 cm** (or W/H < -3 Z-score)
OR
Bilateral Pitting Oedema (+ and ++)

All children less than 6 months of age identified with severe acute malnutrition should be treated in in-patient care till complete recovery, as per the international WHO protocol.

Assessment:

Within IMCI triage, screen for malnutrition, especially for cases referred from the community level

Anthropometrical Measurements

- MUAC
- Bilateral pitting oedema
- Weight (for weight gain assessment during follow up visits and W/H assessment)
- Height (for W/H assessment – if also admission on weight for height)

Table 1. Criteria for admission to in- or out-patient care:

Factor	In-patient care	Out-patient care
Oedema	Bilateral pitting oedema Grade 3 (+++) (next page) OR Marasmic kwashiorkor (W/H<-3 Z-score / MUAC < 11.5 cm AND oedema)	Bilateral pitting oedema Grade 1 to 2 (+ and ++)(see next page)
Appetite	No appetite or unable to eat	Good appetite
Medical complications		NO medical complications
Vomiting	Intractable (empties contents of stomach)	
Temperature	Fever > 101.3 °F under arm pit (102.2°F rectal) Hypothermia < 95 °F under arm pit; (96°F rectal)	
Respiration rate	≥ 50 resp/min from 6 to 12 months ≥ 40 resp/min from 1 to 5 years Any chest in-drawing (for children > 6 months)	
Anaemia	Very pale (severe palmor pallor), difficulty breathing	
Skin infection	Extensive skin infection requiring Intra-Muscular injection treatment	
Alertness	Very weak, apathetic, unconscious Fitting/convulsions	
Hydration status	Severe dehydration based primarily on recent history of diarrhoea, vomiting, fever, anuria, thirst, sweating & clinical signs	

Severity of Oedema	Where	What
Mild (+)	Usually confined to feet and pre-tibia	Pit stays for 3 seconds
Moderate (++)	On both feet and legs	Intermediate
Severe (+++)	Whole body, legs, hands, and eyes (moonface)	Pit is deep and stays for 3 minutes or more

Assess condition of child and presence of complications

- Take history for Diarrhoea, Vomiting, Stools, Urine, Cough, Appetite, Breastfeeding, Swelling, Oedema (See annex)
- Carry out medical assessment as per IMCI guidelines, paying special attention to conditions mentioned in Table 1.
- Assess the **appetite**; try if the child does accept RUTF for feeding – test in a quiet area. The health worker must observe the child eating the RUTF before the child can be admitted to out-patient care programme

Admission

- If there are no complications present the child can be treated in OTP
- If complications are present: explain to the carer the child can not be treated in OTP at the (Sub) Health Post / PHC and needs in-patient care: refer to Stabilisation Centre (SC).
- Give all cases referred to inpatient care at SC treatment for hypoglycaemia as per IMCI guidelines (page 11)!

Systematic Treatment / Routine Medicines

In order to treat probable and potential underlying causes that might cause only sub-clinical symptoms in severely malnourished children, ALL cases admitted to OTP should be treated according to the following systematic treatment schedule.

Drug/Supplement	When	Age/Weight	Prescription	Dose
VITAMIN A*	At Admission (EXCEPT children with oedema)	6 – 12 months	100,000 IU	Single dose (for children with oedema single dose on discharge)
		> 12 months	200,000 IU	
		Do not use with Oedema		
AMOXYCILLIN	At Admission	All SAM cases	See IMCI protocol	3 times a day for 7 days
CHLOROQUINE	At Admission in malaria areas (Terai)	All SAM cases	See IMCI protocol	1 time a day for 3 days (on admission)
ALBENDAZOLE	Second visit	6 – 12 months	DO NOT GIVE	None
		12 – 23 months	200 mg	Single dose, on second visit
		≥ 24 months	400 mg	
MEASLES VACCINATION	On week 4 (Except children that have not yet completed 9 months of age)	6 – 8 months	DO NOT GIVE until they complete 9 months of age.	Once; when they complete 9 months, after at least 4 weeks in OTP.
		≥ 9 months	Standard	Once

* Vitamin A: Do not give if the child has already received Vitamin A in the last month. DO not give to children with oedema until discharge from OTP, unless there are signs of Vitamin A deficiency

IRON and FOLIC ACID: *NOT to be given routinely*. Where severe anaemia is identified according to IMCI guidelines, the severely malnourished child should be referred to in-patient care. Where moderate anaemia is identified treatment should *begin after 14 days* in the programme and not before because a high-dose may increase the risk of severe infections. Treatment should be given according to IMCI protocol (one dose daily for 14 days).

Supplemental medicines

Other medical conditions/symptoms – eye infections, ear discharge, mouth ulcers, minor skin infections and lesions – should be treated according to the IMCI guidelines (see annex 1)

Nutrition Treatment

Nutritional rehabilitation is through the use of Ready-to-Use Therapeutic Food. (Plumpy'Nut® is the imported RUTF produced by Nutriset in France).

The amount of RUTF a child should consume is determined by the need for an intake of 200 kcal/ kg/ day.[1] The amount given to each patient is according to its current weight. The table below gives the amounts of RUTF to feed and take home rations.

Table 3. Amount of RUTF to feed and take home in OTP*

Plumpy'Nut®				
92 g (1 sachet) of PN has 500Kcal (average amount to feed: 200kcal/kg/day)				
Weight of child (kg)			**Ration per week (No of Sachets)**	**Ration per day (No of sachets)**	**Consumption per day (No of sachets)**
3.5	**-**	**3.9**	14	**2**	**1.5**
4	**-**	**5.4**	14	**2**	**2**
5.5	**-**	**6.9**	21	**3**	**2.5**
7	**-**	**8.4**	21	**3**	**3**
8.5	**-**	**9.4**	28	**4**	**3.5**
9.5	**-**	**10.4**	28	**4**	**4**
10.5	**-**	**11.9**	35	**5**	**4.5**
> 12			35	**5**	**5**
Give small amount every 3 hours (day and night), with water to drink					

* Since open packages could not be kept overnight in case of rats and other infestations, the number of sachets has been rounded-up for the take-home rations.

When giving the ration, the mother/caretaker should get key messages on the use of RUTF, continuation of breastfeeding, the need to feed plenty of drinking water, and orientation on hygiene and sanitation.

[1] This is comparable to the WHO recommendation of 150 to 220 kcal/kg/day for nutritional rehabilitation in phase 2 of the in-patient management of SAM

Follow-up visits

Children's progress is monitored on a weekly basis[2] at the health facility ((S)HP/PHC)

- Weight is measured, and weight gain assessed
- Degree of oedema (0 to +++) is assessed
- MUAC is taken.
- Medical assessment is completed as per IMCI guidelines
- Appetite is discussed and RUTF appetite test performed only if there seem to be problems
- Give new ration according to current weight
- Discuss home situation and needed changes in care, hygiene, and feeding practices
- Arrange for home-visit by FCHV or VHW if weight gain is unsatisfactory (static weight or even weight loss since last visit)

The medical check and appetite test will show if children should be transferred to in-patient care.

Also, all children not showing weight gain for 5 weeks, or weight loss for 3 weeks, should be referred for inpatient treatment.

Based on the medical check, additional supplemental medicines may be given to children, as required and according to IMCI protocols.

Discharge from OTP

Discharge Criteria

(for all cases, both admitted on MUAC and on W/H)

- If target weight gain (15%) has been reached (see table Annex 2)
- No oedema for two consecutive visits
- AND weight gain has been satisfactory for last two consecutive visits

Upon Discharge

- Children admitted with Oedema will get one dose of Vit A (other children do not get this discharge dose)
- If the child has completed 9 months of age during its treatment in OTP, and did not yet get a measles vaccination the caretaker should get a very firm appointment for follow-up visit during EPI hours, or to visit the nearest EPI outreach clinic as soon as possible to receive the vaccination.
- Children admitted at age 6 to 8 months should get follow-up appointment (during EPI hours, or outreach clinic) for second measles vaccination after one month
- All children will get a last ration for 7 sachets of RUTF (for one week)
- The caretaker should get Counselling on care practices, hygiene, feeding practices, food preparation for children etc. and will be referred to their FCHV for follow-up after two weeks / one month/ and two months

[2] Out-patient care can be carried out fortnightly depending on the situation. E.g., if mothers are defaulting because they are too busy or the HF is far, they may attend a fortnightly session.

SUPPLEMENTAL MEDICINES FOR OTP

Medicine	Use	Specification	Prescription	Special Instructions
Chloramphenicol syrup or tablets (second line antibiotic for non-response)		Capsules 250 mg Syrup 125mg/5ml	See SC protocol	Continue for 7 days
Metronidazole	Bloody diarrhoea, longer than 7 days	Syrup 100mg/5ml and 200 mg/5ml	Dose 20-30 mg/kg/day*	Continue for 5 days
Tetracycline eye ointment	Eye infection		Apply 3 times per day	Wash eyes before application Continue for 2 days after infection has gone
Clotrimazole	Candida	Mouth paint	Candida	Continue for 7 days
Paracetamol	Fever over 101ºF (38.5ºC) (1 dose only)	Syrup 125 mg/5ml	Lower doses according to weight than for IMCI**	Single doses only – do NOT give to take home[3]
Benzyl benzoate	Scabies	Lotion 25%; 200ml	Apply over whole body below neck; repeat without bathing following 3 days. Wash off 24 hours later.	Avoid eye contact. Do not use on broken or secondary infected skin.
Whitfields or zinc ointment	Ringworm and other fungal infection	Ointment	Apply twice a day	Continue treatment until condition has completely resolved
Gentian violet	Minor abrasions or fungal infections	1% watery solution	Apply on lesion	Can be repeated at next visit and continued until condition is resolved
Betadine solution	Disinfection		Apply on lesion	
Sugar (to make sugared water 10% dilution)	Hypoglycaemia	10 g sugar in 100 ml drinking water	50 ml to all children refusing RUTF	All children referred to SC (before leaving); if possible all children waiting for OTP

[3] Patients with fever over 101.3ºF /38.5 ºC (axillary) should be referred to hospital or stabilisation centre; the single doses should be given at health facility before transfer.

Medicine	Use	Specification	Prescription	Special Instructions
Ferrous Sulphate/Folate	Moderate anaemia according to IMCI guidelines		According to WHO protocols (INACG 1998)	ONLY to be given after 14 days in the programme
Second line anti-malarial	For non-response to first line treatment		According to national malaria treatment protocol	Do NOT give Intravenous infusion of Quinine to severely malnourished children

***Metronidazole dosages**

Syrup: 125 mg / 5 ml	
< 4.0 kg	Do not give
4.0 – 7.9 kg	62.5 mg (2.5 ml) *tid*
8.0 – 15.0 kg	125 mg (5 ml) *tid*
> 15.0 kg	250 mg (10 ml) *tid*

****Paracetamol dosages**

Syrup: 125 mg / 5 ml	
< 4.0 kg	25 mg (1 ml) *stat*
4.0 – 7.9 kg	62.5 mg (2.5 ml) *stat*
8.0 – 15.0 kg	125 mg (5 ml) *stat*
> 15.0 kg	250 mg (10 ml) *stat*

15% Weight Gain Table

ADMISSION Weight (kg)		MINIMUM DISCHARGE Weight (kg)		ADMISSION Weight (kg)		MINIMUM DISCHARGE Weight (kg)
3.0	⇨	3.5		6.9	⇨	7.9
3.1	⇨	3.6		7.0	⇨	8.1
3.2	⇨	3.7		7.1	⇨	8.2
3.3	⇨	3.8		7.2	⇨	8.3
3.4	⇨	3.9		7.3	⇨	8.4
3.5	⇨	4.0		7.4	⇨	8.5
3.6	⇨	4.1		7.5	⇨	8.6
3.7	⇨	4.3		7.6	⇨	8.7
3.8	⇨	4.4		7.7	⇨	8.9
3.9	⇨	4.5		7.8	⇨	9.0
4.0	⇨	4.6		7.9	⇨	9.1
4.1	⇨	4.7		8.0	⇨	9.2
4.2	⇨	4.8		8.1	⇨	9.3
4.3	⇨	4.9		8.2	⇨	9.4
4.4	⇨	5.1		8.3	⇨	9.5
4.5	⇨	5.2		8.4	⇨	9.7
4.6	⇨	5.3		8.5	⇨	9.8
4.7	⇨	5.4		8.6	⇨	9.9
4.8	⇨	5.5		8.7	⇨	10.0
4.9	⇨	5.6		8.8	⇨	10.1
5.0	⇨	5.8		8.9	⇨	10.2
5.1	⇨	5.9		9.0	⇨	10.4
5.2	⇨	6.0		9.1	⇨	10.5
5.3	⇨	6.1		9.2	⇨	10.6
5.4	⇨	6.2		9.3	⇨	10.7
5.5	⇨	6.3		9.4	⇨	10.8
5.6	⇨	6.4		9.5	⇨	10.9
5.7	⇨	6.6		9.6	⇨	11.0
5.8	⇨	6.7		9.7	⇨	11.2
5.9	⇨	6.8		9.8	⇨	11.3
6.0	⇨	6.9		9.9	⇨	11.4
6.1	⇨	7.0		10.0	⇨	11.5
6.2	⇨	7.1		10.1	⇨	11.6
6.3	⇨	7.2		10.2	⇨	11.7
6.4	⇨	7.4		10.3	⇨	11.8
6.5	⇨	7.5		10.4	⇨	12.0
6.6	⇨	7.6		10.5	⇨	12.1
6.7	⇨	7.7		10.6	⇨	12.2
6.8	⇨	7.8		10.7	⇨	12.3

15% Weight Gain Table (continued)

ADMISSION Weight (kg)		MINIMUM DISCHARGE Weight (kg)		ADMISSION Weight (kg)		MINIMUM DISCHARGE Weight (kg)
10.8	⇨	12.4		14.2	⇨	16.3
10.9	⇨	12.5		14.3	⇨	16.4
11.0	⇨	12.7		14.4	⇨	16.6
11.1	⇨	12.8		14.5	⇨	16.7
11.2	⇨	12.9		14.6	⇨	16.8
11.3	⇨	13.0		14.7	⇨	16.9
11.4	⇨	13.1		14.8	⇨	17.0
11.5	⇨	13.2		14.9	⇨	17.1
11.6	⇨	13.3		15.0	⇨	17.3
11.7	⇨	13.5		15.1	⇨	17.4
11.8	⇨	13.6		15.2	⇨	17.5
11.9	⇨	13.7		15.3	⇨	17.6
12.0	⇨	13.8		15.4	⇨	17.7
12.1	⇨	13.9		15.5	⇨	17.8
12.2	⇨	14.0		15.6	⇨	17.9
12.3	⇨	14.1		15.7	⇨	18.1
12.4	⇨	14.3		15.8	⇨	18.2
12.5	⇨	14.4		15.9	⇨	18.3
12.6	⇨	14.5		16.0	⇨	18.4
12.7	⇨	14.6		16.1	⇨	18.5
12.8	⇨	14.7		16.2	⇨	18.6
12.9	⇨	14.8		16.3	⇨	18.7
13.0	⇨	15.0		16.4	⇨	18.9
13.1	⇨	15.1		16.5	⇨	19.0
13.2	⇨	15.2		16.6	⇨	19.1
13.3	⇨	15.3		16.7	⇨	19.2
13.4	⇨	15.4		16.8	⇨	19.3
13.5	⇨	15.5		16.9	⇨	19.4
13.6	⇨	15.6		17.0	⇨	19.6
13.7	⇨	15.8		17.1	⇨	19.7
13.8	⇨	15.9		17.2	⇨	19.8
13.9	⇨	16.0		17.3	⇨	19.9
14.0	⇨	16.1		17.4	⇨	20.0
14.1	⇨	16.2		17.5	⇨	20.1

Medical Equipment required at OTP facility

Medical Equipment / Supply	Use	Specification	Number
Thermometer	Hypothermia	Low Reading	3
MUAC tapes	Nutritional status assessment	Cut-off at 115 and 125 mm	10
Salter scale	Weight measurement	(25 kg, 100 g) plus pants	2
Height board	Length/height measurement		1
Weight for Height Z-score table	Nutrition assessment	laminated	1
% weight gain table	Nutrition assessment	laminated	1
OTP cards			100
Marker pens			3
Medicine slips	To dispense medicines to be taken home	Symbols to indicate proper dosage	100
Bucket with lid	Water for washing		2
Soap	Hand washing		1
Nail clippers			1
Hand towels / paper towels			2
Examination gloves			100
Plastic cups	Serving sugar solution		10
Small spoons	Serving sugar solution		10
Water jug with lid	Sugar solution		2
Water purification tablets, or water guard	For drinking water		100
Jerry can	For water		1
Gauze 10 x 10			20
Small bandage			10
Tape			2 rolls
Dressing scissors			2 pairs
Normal saline for wounds	100 or 200 ml		10
Cotton wool			5 rolls
Mortar and pestle		To crush tables	1

OTP instructions for Treatment of Children aged less than 6 months and over 5 years

The CMAM programme is targeting children aged 6 months to 59 months.

The under-limit of the target group is determined by the fact that children less than 6 months of age have specific needs and can not yet digest the RUTF efficiently. Severely acutely malnourished children under the age of 6 months (weighing less than 3 kg) should therefore always be referred to the hospital or therapeutic feeding centre to receive specialised medical attention and nutrition treatment. The aim of the treatment is to restore exclusive breastfeeding and the rehabilitation of the nutritional condition of the children.

The upper-limit is determined by vulnerability criteria related to the age less than 5 years. There can be exceptional cases of extreme severe acute malnutrition in children over the age of 5 years that would warrant treatment. Therefore, children with increased vulnerability due to HIV/AIDS (either identified in the child or in the mother), which have elevated nutrition requirements, will be admitted for treatment if identified as severely acutely malnourished. Admission of such cases should always be reported to the overall CMAM programme managers.

OTP instruction for use of Multi-Micronutrient supplementation

The Nepal Ministry of Health has a new policy for the Multi-Micronutrient supplementation for children aged 6 to 24 months, to prevent anaemia and improve overall nutritional status. In 2009 the supplementation programme will be piloted in selected districted to try out the distribution process and relevant messages. Furthermore, under food insecurity crisis, the international protocol for emergencies recommends multi micronutrient supplementation for all children aged 6 to 59 months. A common name for the multi micronutrient powder that is used for this supplementation is “Sprinkles”.

Children under treatment for SAM following the CMAM outpatient protocol receive RUTF that has been formulated to provide the exact balance of micronutrients and electrolytes required for children suffering from acute malnutrition. These children should therefore not receive any supplementation with multi micronutrients.

Children suffering from acute malnutrition in combination with (moderate) anaemia are treated specifically for anaemia as per the national CMAM protocol. Even these children should not receive any supplementation with multi micronutrients.

In areas where multi-micronutrients supplementation is already in place, caretakers of children under treatment by the CMAM programme should be explicitly informed that their child should not take the multi-micronutrients until it has been discharged. After discharge it can be recommended to give multi-micronutrients as per the standard protocol for supplementation.