



MSF Nutrition Training Package

Module 4 Session 11 Treatment Phases	Duration: 45 min	Reccomeded Prerequisite Sessions: M4 - S10
General Objectives: To understand the different phases of nutritional treatment in a nutritional programme the specific objectives of each phase and the criteria for moving between phases.		

Target Profiles:	
Must attend	Supervisors, Nurses, Nurse assistants, nutrition assistants and Doctors. Psychologist and HPs for the treatment phases part
Should attend	
Could attend	

Specific Objectives
At the end of this session participants will be able to: 1. Understand the different phases of nutritional treatment in a nutritional treatment, 2. Understand the objective and specifics of each of the phases, 3. Understand the criteria for moving between phases.

Contents
1. Phases of nutritional treatment, 2. Objective of each phases, 3. Criteria to move from one phase to another,

Methodology Overview: This is a 45-minutes session where the participants will have the opportunity to learn about the different **phases of nutritional treatment:**
1. Facilitator introduces the objectives of the session and launches a case study. 2 The facilitator will explain the phases of nutritional treatment 3 Participants will work with case studies to practice using the criteria to decide whether to change phases 4. Wrap up and delivery of takeaways

Time	Activities	Description of Learning Activities	Method	Materials
5'	Activity 1: Introduction	Explanation of the learning objectives and introduction to the session with an example of a case study	Whole Group and pairs for the case	PPT: NP_M4_S11_TreatmentPhases
20'	Activity 2: Presentation	-The facilitator will explain the phases of nutritional treatment using a PPT -At the end the facilitator reviews the answers of the case study of the introduction and gives the correct answer.	Whole Group	-Computer and projector PPT: NP_M4_S11_TreatmentPhases
15'	Activity 3: Practice change of phases	The facilitator distributes different cards with case studies and the participants must decide if they have to change phases.	Pairs	Case studies cards
5'	Activity 4: Wrap up + Takeaways	-The facilitator will ask the participants what they learnt during the session, and will add any important key message that have not been mentioned -The facilitator will deliver the takeaway	Whole group	-NP_M4_S11_SummaryPhasesTFP_Takeaway -NP_M4_S11_Takeaway_KeyMessages



Materials

- Computer and projector
- Flipchart and marker
- (Ppt) NP_M4_S11_TreatmentPhases
- (Ppt) NP_M4_S11_CaseStudies
 - **Print:** Copies according to the number of participants. Each pair receives 4 cards (i.e. for 8 participants there will be 2 copies of each card)
- (PDF) Takeaway to be **printed or emailed:**
 - NP_M4_S11_SummaryPhasesTFP_Takeaway
 - NP_M4_S11_Takeaway_KeyMessages



Activities Description



Activity 1: Introduction

(In group/pairs, 5 minutes)

- (1 minute) Whole group
 - The facilitator will introduce the objectives of the module.
- (4 minutes) In pairs
 - The facilitator will present a case using the Ppt NP_42_S11_treatmentphases and will ask:

Do you think this child can change phases (from inpatient to outpatient phase)? Why?

- The facilitator does not provide the answer yet. He/she will come back to this case at the ends of the activity 2.

Case Study: Annika

3 years old. Ward round. ITFC. 3rd day in Transition Phase. Marasmus

She is in Transition Phase taking RUTF paste very well. She has repeatedly requested more quantities of food. No medical symptoms.

Examination: Alert. Respiratory Rate: 28 rpm. Heart Rate: 95 bpm. O₂ Sat.: 100%. No fever. No respiratory distress. Normal pulse, warm hands and feet. Capillary Refill 1 second. 4 cm enlarged spleen. Rest of examination is normal.

QUESTION: Could Annika move from ITFC to ATFC? Why/why not?

Activity 2: Presentation of Theory

(Whole group, 17 minutes)

- The facilitator will explain the phases of nutritional treatment using a Ppt (NP_M4_S11_TreatmentPhases)

Note: It is very important that the facilitator emphasises the link between the previous session on pathophysiology (session 10) and the treatment phases.

- Nutritional treatment in a nutrition programme is composed of **3 phases: Phase 1, Transition phase and Phase 2**. For infants less than 6 months different stages of treatment are used. Discussed in module 6.
- **Phase 1 and Transition phase are delivered in ITFC and Phase 2 in ATFC** (except for rare cases where a child needs to start Phase 2 as an inpatient).
- Each phase has a **specific objective**, specific nutrition products used, and specific activities that must accompany it (e.g. vaccination). The **length of stay** in each phase will vary according to the child's condition and clinical evolution.
- An ITFC should be organised so that it is very clear which patient is on which phase. This could be through different areas of the ward being assigned to each phase or if this is not feasible then each bed has a label on to show which phase the child is in
- In each ITFC, the decision to change children from one phase to another should be made by the clinical team including the staff member who does the daily ward round (usually a doctor) in conjunction with the nutrition assistants and nurses who have first-hand knowledge of how the child has been feeding and any other issues the child/caretaker has that are not discovered in the ward round.
- The **criteria to change phase** must be strictly followed. Make sure patients are not changed from one phase to another too quickly (or take too long to change)

⇒ Criteria for changing from phase 1 to the transition phase

- Medical complications have been stabilised
- Appetite has begun to return, and
- Oedema has reduced (can go to Transition phase if ++ oedema, but meeting the other above criteria).

⇒ Criteria to change from the transition phase to phase 2 (ATFC)

- Good appetite: the child easily finishes his RUTF and asks for more (quantities should not be increased in the transition phase). If the regimen chosen was the F100, the child needs one day with RUTF to evaluate the acceptance
- Medical complications are stabilised.
- Oedema has reduced (can go to Phase 2 if + oedema but meeting the other above criteria).

Note: Patients in Transition Phase may require transfer back to Phase 1 if complications arise.

⇒ Criteria for transfer back to Phase 1: When one of the following signs develops:

- Development of **significant** re-nutrition diarrhoea (white stools 15-30 minutes

after eating) with weight loss. We often see a change in stool consistency and colour when children move phases, but if this is only mild and there is no weight loss then they can still stay in transition phase.

- Re-appearance or worsening of oedema.
- Any signs of fluid overload and/or heart failure
- Diarrhoea with **severe dehydration**

- **Phase 2: ATFC:** Most children who are directly admitted into an ATFC (not referred from an ITFC) are admitted into Phase 2 (without doing phase 1 and transition phase, which are inpatient). There are specific situations that Phase 2 may be delivered in ITFC:
 - ⇒ Children that are transferred from ATFC to ITFC for investigation due to lack of response to treatment with a preserved or normal appetite and who are clinically stable (an unwell child who is seen in ATFC and is thought to be septic, for example, is likely to need to re/start in Phase 1)
 - ⇒ Also, children with MAM and medical complications with a preserved or normal appetite and who are clinically stable (an unwell child who is seen in ATFC and is thought to be septic, for example, is likely to need to re/start in Phase 1)

- **Note:** It is common for the children to get some change in stool frequency when they change diet. This does not need to be treated unless the children lose weight. Several loose stools without weight loss are not a criterion to move back to acute-phase.

Age 6-59 Months		SUMMARY TABLE OF NUTRITIONAL TREATMENT for Children 6-59 months		
	Objective	NUTRITIONAL TREATMENT		Duration
 PHASE 1 : STABILISATION - inpatient -	<ul style="list-style-type: none"> ▪ Restore metabolic function ▪ Stabilise clinical condition ▪ Begin resolution of oedema 	 F-75	F-75 - QUANTITY <ul style="list-style-type: none"> ▪ 135ml/kg/day ▪ 8 meals/day ▪ 100kcal/kg/day maximum 	 Usually 1-7 days
 TRANSITION PHASE - inpatient -	<ul style="list-style-type: none"> ▪ Ensure return of appetite and acceptability of RUTF ▪ Ensure ongoing clinical improvement ▪ Continued improvement of oedema 	 OR F-100	OPTION A : RUTF-Based OPTION B : F-100-Based QUANTITY <ul style="list-style-type: none"> ▪ 6 or 8 meals/day ▪ 135kcal/kg/day 	 Usually 1-3 days
 PHASE 2 : REHABILISATION - outpatient - - rarely ITFC -	<ul style="list-style-type: none"> ▪ Promote weight gain and return to regular development ▪ Recovery 	 RUTF + 	QUANTITY <ul style="list-style-type: none"> ▪ prescribed by weight ▪ 200kcal/kg/day Family meals if still hungry after RUTF consumed.	 30-35 days later ITFC

Introductory case resolution:

At the end of all the explanations, the facilitator comes back to the first case study and asks the question again to the participants.

- **Could Annika be changed from transition to phase 2 (ATFC)? Why/why not?**

Answer for the facilitator to double check with the participant's answers:

Yes, she can go from ITFC to ATFC. Because she has appetite, eats the RUTF well and does not have any medical complications which require her to be in hospital



Activity 3: Practical cases: change of phase

(In pairs, 15 minutes)

- (5 minutes) Set Up
 - The facilitator organises the room with 3 different areas with 3 panels hanging on the wall.
 - Phase 1
 - Transition phase
 - Phase 2 (ATFC)
 - Participants are organised in pairs.
 - There are 8 different cards each with a different case.
 - Each pair will receive 4 cases.

For example, for 10 participants (5 pairs) 20 cards are needed (4 cards per pair). All cards printed twice (8x2=16) and then an extra 4 more.

- The facilitator will make sure that at least one of each case 8 different case cards is distributed among the participants in order to give feedback about each one at the end of the activity.
- (5 minutes) In pairs
 - Participants receive cards with examples of cases, and they must put their card on the correct panel area according to the phase they should follow.
- (5 minutes) Whole group
 - The facilitator goes through the answers with the group

Answers for the facilitator

Mohamed:

24 month old boy, ward round. ITFC. 4th day in Phase 1. Oedema +

Child is fed through a **nasogastric tube**, has been refusing the milk, now takes a small amount of milk orally before refusing the rest (which is given via the NGT), but you are not sure if he is ready to take NGT out.

Weight initially decreased with reduction in oedema. Now is stable.

No other clinical symptoms or signs. Oedema has significantly reduced from +++ on admission.

Examination: Alert. Slightly irritable

Respiratory Rate: 30 bpm. Heart Rate: 90 bpm. O₂ Sat.: 98% on air.

Normal breath sounds, no respiratory distress. Heart rate regular, capillary refill of <2 seconds.

Normal abdominal examinations.

Warm extremities. Mildly inflamed throat. Cutaneous lesions of kwashiorkor. No other abnormalities

COULD MOHAMED BE CHANGED FROM PHASE 1 TO TRANSITION?

Answer: Only in day 4 of Phase 1 so can wait a little longer, try to get Mohamed to take all the milks orally if possible. If he continues to be stable but continues to refuse the milks, could trial some RUTF as maybe he will prefer the taste. Having an NGT does not stop you moving from one phase to another, but it is preferable to get the child taking the food orally and see that he is a bit stronger before transitioning.

Remain in Phase 1 with F-75 (try to remove NGT).

Maimouna:

4 year old girl. 5 weeks in ATFC. Marasmus

Mother tells the nurse that the girl is eating very well, with a very good appetite, and that there are no special concerns. Has been 5 weeks in the programme, but weight curve is completely flat.

Examination: Alert. Good general condition.

Respiratory Rate: 28 rpm. Heart Rate: 95 bpm. O₂ Sat.: 100% on air.

No signs of respiratory distress, Normal pulse, CRT and extremities. Normal skin colour

Presents 1 cm hepatomegaly, rest of abdominal examination normal. No other abnormalities.

MUST MAIMOUNA REMAIN IN ATFC OR BE REFERED TO ITFC? IF SO, IN WHICH PHASE ?

Answer: Referred for investigations to ITFC, good appetite. The main thing we are looking for is to observe how and if Maimouna actually eats the RUTF, what other foods she eats and if she gains weight whilst in ITFC. If she does gain wait, it is likely that she is not getting the full ration of RUTF at home (i.e. likely food sharing or not getting any RUTF). Also an important time to observe the relationship between the mother and Maimouna as this could have a significant impact on her recovery. If the mother refuses to go to ITFC, all efforts should be made to convince her in a supportive manner and if she still refuses then home visits should be organized to try and understand the family dynamics and home environment.

Refer to ITFC for observed Phase 2.

Remark: Usually in ITFC there is no phase 2. Only for exceptional cases as Maimouna, it is possible to do phase 2 in ITFC.

Kevin:

12 month old boy. Ward round. ITFC. 5th day in Phase I. Marasmus

Child looks well. Vital signs completely normal. No special concerns.
Mother says the child has an extremely good appetite. Yesterday a nurse saw him eating his brother's local diet.

Examination: Alert, good general condition.

Respiratory rate: 27 rpm. Heart Rate: 90 bpm. O₂ Sat.: 98% on air.

Normal respiratory examination. Regular pulse, CRT <2 seconds, warm extremities.

Normal abdominal examination. Normal neurological examination.

Papular skin rash, not itchy.

COULD KEVIN BE CHANGED FROM PHASE 1 TO TRANSITION?

Answer: Good appetite, requests more food, medical complications stable.

Change from Phase 1 to Transition.

Fatou:

18 month old girl. Ward round. ITFC. 4th day in Transition. Oedema +.

Girl is stable, no problems. She has taken RUTF paste well, without vomiting.
Actually, she asks for more. Oedema has significantly reduced from +++ on admission.
Burn on right leg has been receiving dressings every other day.

Examination: Alert, good general condition.

Respiratory Rate: 30 rpm, Heart Rate: 120 bpm, O₂ Sat.: 99%. T₀: 37.2°.

No respiratory or circulatory problems. Neurologically absolutely normal. Burn seems healing well, no super-infection signs.

Bilateral oedema +. Cutaneous lesions of kwashiorkor healing well.

COULD FATOU BE CHANGED FROM TRANSITION TO PHASE 2 (ATFC)?

Answer: sufficient reduction of oedema and otherwise stable. Burn still needs dressing.

Change from Transition to Phase 2 IF THERE IS A HEALTH CENTRE NEAR TO THEIR HOME WHERE THE ALTERNATE-DAY DRESSINGS CAN BE DONE. If there is nowhere they can go for this, the patient should move to Phase 2 inpatient (RUTF and family meal) until the burn is healed enough to only need weekly dressings which the child can come back to this ITFC for if there is no where else for them to go.

James:

14 month old boy. Ward round. ITFC. 3rd day Transition Phase. Kwashiorkor.

Boy has a good appetite. No special complaints from the caretaker. Vital signs are normal.

Examination: Alert, good general condition, although slightly irritable.

Respiratory Rate: 35 rpm, Heart Rate: 95 bpm. O₂ Sat.: 97% on air. T₀: 36.5°

Normal respiratory examination. Regular pulse, CRT <2 seconds, warm extremities.

Normal abdominal examination. Normal neurological examination.

Cutaneous lesions of kwashiorkor widespread on legs and arms. Oedema has returned to upper part of legs and face (puffy eyes) since starting transition phase.

SHOULD JAMES RETURN TO PHASE 1 OR REMAIN IN TRANSITION?

Answer: Re-gained oedema in Transition Phase, likely started too soon as only on day 3 of admission.

Must change (return) to Phase 1.

Aitou

3 year old girl. 2nd ATFC scheduled visit. Kwashiorkor ++

Child is brought in because of tender abdominal distension that started 2 days ago. Urinates less. Takes RUTF paste well, she is thirsty, drinking a lot of water. Last Vital Signs (4 days ago): Respiratory Rate: 45 rpm. Heart Rate: 135 bpm.

Examination: Alert, appears in discomfort, irritable.

Respiratory Rate: 57 rpm. Heart Rate: 160 bpm. T_o: 36.4^o

Tachypnoeic, milk basal crepitations bilaterally. Tachycardic but regular pulse.

CRT <2 seconds. Neurologic examination normal.

Skin lesions in healing stage. Oedema ++. Distended abdomen, tender to palpation. No guarding or

rebound tenderness. Liver is enlarged, 4 cm and tender to palpation.

SHOULD SHE BE ADMITTED TO ITFC IN PHASE 1, TRANSITION OR PHASE 2?

Answer: Complicated SAM in ATFC.

Examination points to some kind of fluid overload with secondary heart failure, needs further investigation as to the cause.

ITFC Phase 1 (needs to be stabilised so start from Phase 1

Mamadou:

4 year and a half year old boy. 12th day in ATFC. Marasmus. Unscheduled visit...

Mother tells the nurse that in the last three days, the boy has lost appetite. No fever or other complaints present, but quite tired. Not taken any RUTF paste in the last two days. Lost 200 grams since the last visit 5 days ago.

Examination: Alert, good general condition.

Respiratory Rate: 32 rpm. Heart Rate: 108 bpm. O₂ Sat.: 100% on air.

Normal respiratory examination. Regular pulse, CRT <2 seconds, warm extremities.

Hepatomegaly of 2cm, but otherwise normal abdominal examination.

Normal neurological examination.

SHOULD MAMADOU BE ADMITTED IN ITFC IN PHASE 1 OR REMAIN IN ATFC?

Answer: Loss of appetite must always be evaluated, not taking RUTF.

Admission to ITFC PHASE 1

Jessica

14 month old girl. Ward round. ITFC. 7th day Phase 1. Kwashiorkor +

Girl was diagnosed with kwashiorkor plus bacterial meningitis on admission. General condition is improving with IV antibiotics, vital signs are stabilising. Jessica has been drinking the F-75 slowly with some vomiting episode after feeds. She is also breastfeeding but the mother reports not with her usual appetite.

Examination: Slightly somnolent and a bit irritable still.

Respiratory Rate: 45 rpm. **Heart Rate:** 92 bpm. **O₂ Sat.:** 98% on air. **T₀:** 37.1^o

Normal respiratory examination. Regular pulse, CRT <2 seconds, warm extremities.

Normal abdominal examination. Normal neurological examination. Oedema +

COULD JESSICA CHANGE FROM PHASE 1 TO TRANSITION?

Answer: Medical complication have only started to be stabilised. Dubious oral tolerance

She should remain in Phase 1 and to consider NGT if she keeps vomiting or appetite doesn't improve.



Activity 4: Wrap up

(Whole group, 5 minutes)

- The facilitator will ask the participants what they learnt during the session, and will add any important **key message** that have not been mentioned:

- Nutritional treatment in a nutritional programme has 3 phases: **Phase 1, Transition phase and phase 2**. For children under 6 months another specific stage is followed.
- Phase 1 and Transition phase is delivered in ITFC and Phase 2 in ATFC (except for rare cases where a child needs to start Phase 2 as an inpatient).
- Each phase has a **specific objective**, specific nutrition products used, and specific activities that must accompany it (e.g. vaccination). The **length of stay** in each phase will vary according to the child's condition and clinical evolution.
- In each ITFC, the decision to change children from one phase to another should be made by the clinical team including the staff member who does the daily ward round
- The **criteria to change of phase must be strictly followed**. Make sure the patients are not changed from one phase to another too quickly (or take

too long)



Takeaways

Facilitator will provide the takeaways to the participants or mail the PDF to be used on their mobiles.

- NP_M4_S11_SummaryPhasesTFP_Takeaway
- NP_M4_S11_Takeaway_KeyMessages



On the Job Training

During the ward round, the supervisor can ask to the doctor or nurse in the ITFC to say if each specific child should change phase or not.

