MSF Nutrition Training Package

Module 2 Session 6 **Patient Flow**	**Duration:** 45 min	**Reccomended Prerequisite Sessions:** None

General Objective:
To be able to describe the patient flow from arrival at the waiting area to admission in to a nutrition programme.

Target Profiles:

Must attend	Supervisors, Nurses, Nutrition Assistants, Doctors
Should attend	Psych
Could attend	-

Key Learning Objectives
At the end of this session participants will be able to: 1. Describe the steps a patient flow must follow, from arrival until they are admitted (or not) into a nutrition programme, 2. Describe how sugar water is prepared

Methodology Overview:
This is a 45-minute session based on the participants having the opportunity to design a patient flow from arrival until admission (or not) and receive feedback from the facilitator and from the nutrition advisor at the headquarters.

1. The participants will brainstorm about the correct flow
2. The facilitator provides theoretical content showing a patient flow algorithm
3. Participants propose a patient flow for the current project they are working in
4. Facilitator provides feedback and does a wrap up

Time	Activities	Description of Learning Activities	Method	Materials
10′	Activity 1: Introduction	Explanation of the learning objectives and introduction to the session with a brainstorming from the participants about what a correct patient flow should look like.	Whole group	Flipcharts and markers
12´	Activity 2: Explanation of a patient flow	The facilitator will describe the patient flow from arrival at the waiting area until admission (or not) into a nutrition programme (ITFC or ATFC). He/she will include an explanation of the impact/consequences of not having a correct patient flow.	Whole group	PPT: NP_M2_S6_PatientFlow
15´	Activity 3: Patient flow practice	For trainings where participants are already working in a nutrition programme: participants design the patient flow that should be implemented or adapted to their project. For participants being trained to open a nutrition programme: participants design a correct patient flow. The participants' proposal is sent to the nutrition advisor at the headquarters for feedback	Whole group	Flipcharts and markers
8´	Activity 4: Wrap up + takeaways	Facilitator provides feedback and does the wrap up. Facilitator gives the "quick tips" for participants to take away (a map of the correct patient flow)	Whole group	NP_M2_S6_Takeaway_ATFCFlow NP_M2_S6_Takeaway_ITFCFlow NP_M2_S6_Takeaway_PatientFlow NP_M2_S6_Takeaway_WaterSugar NP_M2_S6_Takeaway_KeyMessages

Materials

- (Ppt) NP_M2_S6_PatientFlow
- Flipcharts and markers
- **To print or email:**
  - NP_M2_S6_Takeaway_ATFCFlow
  - NP_M2_S6_Takeaway_ITFCFlow
  - NP_M2_S6_Takeaway_PatientFlow
  - NP_M2_S6_Takeaway_WaterSugar
  - NP_M2_S6_Takeaway_KeyMessages

Description of Activities

Activity 1: Introduction

(Whole group, 10 minutes)

- (Whole group, 1 minute)
  - The facilitator will introduce the objectives of the module using the PowerPoint (NP_M2_S6_PatientFlow).

- (Whole group, 9 minutes)
  - Brainstorming in plenary. The facilitator will ask the participants:

  - **Describe the correct patient flow from arrival until they are admitted (or not) in a nutrition programme (ATFC or ITFC)?**
  - **What activities should be included at each step?**
  - **If the flow of patients is not completed and/or is not correctly organized, what might happen? What are the potential consequences?**

  - The facilitator writes down the answers on the flipchart

Activity 2: Theory of Patient Flow

(Whole group, 12 minutes)

- The facilitator will explain the patient flow from arrival at the waiting area until the patient is admitted (or not) into a nutrition programme (ITFC or ATFC) with the help of the Ppt: NP_M2_S6_PatientFlow

- During the explanation, there are some concepts that have been already explained in previous sessions. E.g. appetite test, checking for medical complications, MUAC and oedema interpretation, so the facilitator can ask the participants if they remember the concepts:

  - Why is the appetite test important? How it was performed?
  - Why is checking for medical complications important? What were the main aspects of the clinical examination?
  - How are of the colours of MUAC tape interpreted?

1. **Waiting area- Triage** (how this is done may vary from project to project, e.g. some may use Emergency Treatment Assessment Triage (ETAT), other the South African Triage System (SATS) or one from the MoH)**:**

- Some of the below will vary according to whether it is a vertical nutrition project (i.e. only nutrition activities) or if the nutrition programme is integrated into a health centre or hospital/inpatient facility as one of many services provided
- Triage is **the first activity** which must be performed on a patient's arrival to the health facility (normally in the waiting area). This allows staff to rapidly organize the waiting area and **identify life threatening conditions** (emergency signs) in patients that must be treated immediately (priority 1-red card), those with serious conditions that should be treated rapidly (priority 2-yellow card) and those who should be treated in turn (priority 3-green card).
- In most contexts prone to malnutrition, **MUAC and oedema are compulsory as part of the triage.**
- On arrival, the patients are directed to the triage area where they will be assessed for the presence of emergency signs and if there are none needing immediate medical action (red), then they will carry out the **nutritional screening**. The criteria used for this screening will depend on the age of the patient and the projects's strategy (e.g. some projects may only use MUAC and oedema). These measures and criteria include: oedema, MUAC, WHZ, WAZ or other nutritional complications (a criteria most often used for the 1-6 month age group).
- Patients found to have **no acute malnutrition** or nutritional complications **will not be referred to the nutrition programme** (ITFC or ATFC). Emergency/priority signs will be evaluated, and the patient will be referred to the OPD/PHC or paediatric IPD according to his/her condition.
- If the patient is an infant 1-6 months they will either be admitted directly to the ITFC or to the ATFC if the project is set up to treat these infants on an outpatient basis. If the infant is 0-1 month and needs hospital admission, they should be admitted into a neonatal ward/unit.
- <u>Three points to consider for any triage system:</u>
    - **Regularly revaluate the child in the waiting area** to quickly identify sick or weak children who need medical assistance – clinical condition can change/deteriorate quickly in children.
    - The triage system must be efficient to **avoid children having to wait too long** to receive medical attention.
    - The person in charge of the triage should be **someone properly trained** who feels confident managing this busy and important service.
- **For a waiting area of an ATFC**, the triage procedure is the same.
    - It is important if the child needs referral to the ITFC:
        1. To organise the referral **as soon as possible**
        2. The patient should be kept in an **observation room/space** waiting for the referral (do not let them wander outside in

case their condition deteriorates)

3. The **caretakers must be informed** of the importance of the referral to the ITFC and that it is likely that their child will need to be hospitalised for several days. Having a staff such as a **health promoter** assigned to this activity can be very useful.

Note:

- If a patient has been referred directly to the Emergency Department of a hospital, before the MUAC and oedema was taken, then the measurements will be taken there to determine if the patient is SAM or MAM. If so, the patient should be managed according to the nutrition and medical protocols for complicated acute malnutrition and **be quickly referred to the ITFC ward** (or ICU ITFC).
- This training does not have the objective to explain the triage (ETAT) activity in detail.

2. Waiting area- Health promotion

- While patients and caretakers are waiting for the medical consultation, **basic health messages** can be communicated, including information on what patients can expect from the nutrition programme – this should also be a time that caretakers can ask questions
- All efforts should be made to make the caretakers feel welcome and minimise the stress they are experiencing secondary to having a sick child and being in this environment.
- The messages to be given are explained in Module 8

3. Waiting area- General aspects to consider:

- Minimum well-being conditions for children and caretakers should be ensured at the reception and in the waiting room
- Should have a shadow net to protect patients and their carers from sun and some form of shelter to protect them from rain.
- The maximum waiting time should be 2 hours for green cases
- It should be divided in different areas:
    - Area with benches to sit down for the new arrivals and a separate area for the patients that are in the programme and are coming for follow-up
    - Area with benches for the patients classified as P2: orange
    - Areas with benches for the patients classified as P1: green
- Water point with cups for drinking and sugar water freely available. Also, area at water point to wash hands with soap always present.
- Area of the person doing triage should have a table and basic triage equipment (see resources on setting up a triage and triage kits)
- Privacy should try to be maintained for patients in triage. If there is only one person doing triage there has to be a balance of privacy (e.g. using a screen/small wall) versus being able to see all the patients and keep an eye if anyone deteriorates. Ideally triage should be done by more than one person.
- A latrine should be close to the waiting area and set up for adults AND children

4. Waiting area- Sugar water

- **Sugar water** should be available and encouraged for every SAM child in the waiting area
- **To prevent hypoglycaemia**: Often a SAM child will not have been fed for several hours before arriving at the health facility and there may be a period of time before the admission procedures are finished and the first milk feed (in ITFC) or RUTF (in ATFC) is offered.
- Give **50ml** to children **< 10kg**, **100ml** to children between **10 and 20kg** and **200ml** if **> 20kg.** If weight is unknown, children can be sent to the anthropometric measurement area to measure the weight, but usually estimations of weight and amounts are sufficient, and a child can always be given more if they ask for it.
- However, note that **feeding should start as soon as possible** upon admission to the ITFC – this is facilitated by the F-75 and F-100 now being in tins as individual cups can be prepared from the scoops even if it is in between meal times
- Sugar water is only given to children **that can drink** and do not have respiratory distress as this can increase risk of gastric aspiration. Otherwise children will need IV dextrose.
- The sugar water 10% is prepared with the following proportion of water and sugar: **100 ml of drinking water + 10 g of sugar** (1 tea spoon = 5g); 1 litre of water + 100 g of sugar

Table 1: Preparation of sugar water (10% dilution)

AMOUNT OF WATER	AMOUNT OF SUGAR
100ml	10g or 2 heaped teaspoons
200ml (average cup size)	20g or 4 heaped teaspoons
500ml	50g or 10 heaped teaspoons
1 litre	100g or 20 heaped teaspoons

5. Weight and height measurements

- For the patients with medical complications which need urgent treatment, the weight and height will be done when possible, knowing that the priority is to first stabilise the patient.
- For the patients without medical complications needing urgent treatment, the weight and height measurements will be done before the appetite test (this is based on weight).
- In some settings weight and height is done after the triage of the emergency signs while children are waiting in the waiting area
- As the measurements are taken before knowing if the patients will be admitted into the ITFC or the ATFC, the measurements are not yet registered in the nutrition programme register book (they are written down on a separate paper/notebook). They may however be recorded in the emergency department/admission unit register.

6. Checking for medical complications

- Remember that **to correctly assess if the child needs to be admitted into ATFC or ITFC, comprehensive checking for medical complications** should be done after the anthropometric measurements (minimum MUAC and oedema).
- Many of the more serious/severe complications mentioned below will have already been picked up in triage/emergency treatment area, but some will be picked up later in the medical consultation
- Medical complications needing admission into ITFC include:
  - Shock
  - Severe anaemia (<4g/dl or 4-6g/dl with signs of decompensation)
  - Seizures
  - Persistent hypoglycaemia
  - Pneumonia with or without signs of severity
  - Malaria with signs of severity
  - Other severe infections (meningitis, septicaemia, skin/soft tissue)
  - Diarrhoea with some or severe dehydration or dysentery
  - Lethargy, not alert, unconscious
  - Intractable vomiting
  - Other condition needing further investigation or treatment (TB, HIV, fever of unknown origin)
  - Severe skin infection/lesions (including severe kwashiorkor skin lesions)
  - Vitamin A deficiency-related eye conditions
  - Congenital malformations leading to feeding difficulties that cannot be managed at outpatient level

- Patients found to have **MAM or SAM** must be **quickly clinically examined** by a nurse or doctor to evaluate if they have medical complications needing inpatient admission.
  - If the patient has oedema +++ and/or medical complications, they will be **referred and admitted directly into the ITFC** for immediate stabilization and to start treatment.
  - If the patient does not have medical complications and only + or ++ oedema, **the appetite test will be done** to take the decision of whether to treat the child in ITFC or ATFC. The MAM patients without complications will be referred to a Supplementary Feeding Programme (SFP) if available in the area. Some projects may decide to treat the MAM patients in ATFC. MAM patients with medical complications will be referred for inpatient treatment – in many projects this will be in the ITFC but in some it will be in the paediatric inpatient ward, this depends on your operational section and other context specific factors.

7. Appetite test

- Remember that the appetite test is **another essential criterion for deciding if a patient has complicated or uncomplicated SAM or MAM** and if they will be admitted into the ITFC or ATFC. If the child has poor/no appetite (anorexia) and fails the appetite test, s/he should be referred for inpatient treatment (ITFC) even in absence of other complications. If the child vomits after eating the RUTF (but

was willing to eat it), they can be kept in the observation area and you can try the appetite test again a bit later. If they vomit again, they will need to be referred to the ITFC for assessment and likely admission.

- In some settings, the appetite test will be done in a corner of the waiting area (with RUTF and water available) and in other settings a specific room/space will be allocated. The ideal situation is to have a separate quiet area with water for drinking available and staff present to support the caretakers, but this may not always be possible in every project depending on the space and HR available.

8. Registration

- The patient will be **only registered once it is known to which service they will be admitted into (ATFC or ITFC).** This is to avoid registering a patient twice, having a double registering (in the ATFC and in the ITFC). **The patient may be entered into the emergency department/admission unit register so that they can keep track and monitor their activities.**
- Therefore, the register is usually located in a separate room, but in some settings with limited space, the registration might be set up in the waiting room (next to the anthropometric measurements).
- For referrals from one centre to the another or cases not being admitted yet, a list of referrals will be done for double checking.

9. Some bad practices and their consequences

Bad practice	**Consequences**
Staff in ED or admission unit not trained to understand the basics of malnutrition and why malnourished children are different to non-malnourished patients, plus the differences in stabilisation protocols for malnourished and non-malnourished patients.	Mismanagement of malnourished children. Some diagnoses of medical complications and their management in SAM and MAM patients are different than for a non-malnourished patient. For example, severe dehydration, shock, pain management etc, and if not well diagnosed or managed can cause fluid overload, heart failure and other serious consequences, including death.
New patients that arrive at the ATFC and need referral at the ITFC, are first admitted and registered into the ATFC	The same patient will be newly admitted twice in both centres. This will create a bias in the statistics and could lead to a false number of admissions being recorded in the ATFC. The patient can be registered in the ED register to show their workload and for other monitoring indicators. They should be registered in the ITFC as a new admission and source can be the ATFC.
Not having sugar water available in the triage and waiting area	Risk of hypoglycaemia – patients have often not eaten for a while, perhaps have had a long journey and long waiting times can all lead to

	hypoglycaemia
Waiting time too long (e.g. 5 hours)	Patients and caretakers feel tired and disappointed with the service and may even leave before they are seen. In addition, even if they wait to be seen, they may refuse to come back for another appointment if they think they will have to wait for a similar amount of time. Caretakers often have many work and household duties and time is precious. Especially if they have travelled a long way to the clinic
No shadow net in the waiting area	Patients feel too hot, risk of sunstroke, they may leave before being seen and might not want to come back for a future appointment if they think they will again be waiting in the sun for a long time.
Not carrying out regular re-evaluations of patients in the waiting area	Patients clinically deteriorating in the waiting are. A non-urgent case can become an emergency case.

Activity 3: Patient Flow Practice

(Whole group, 15 minutes)

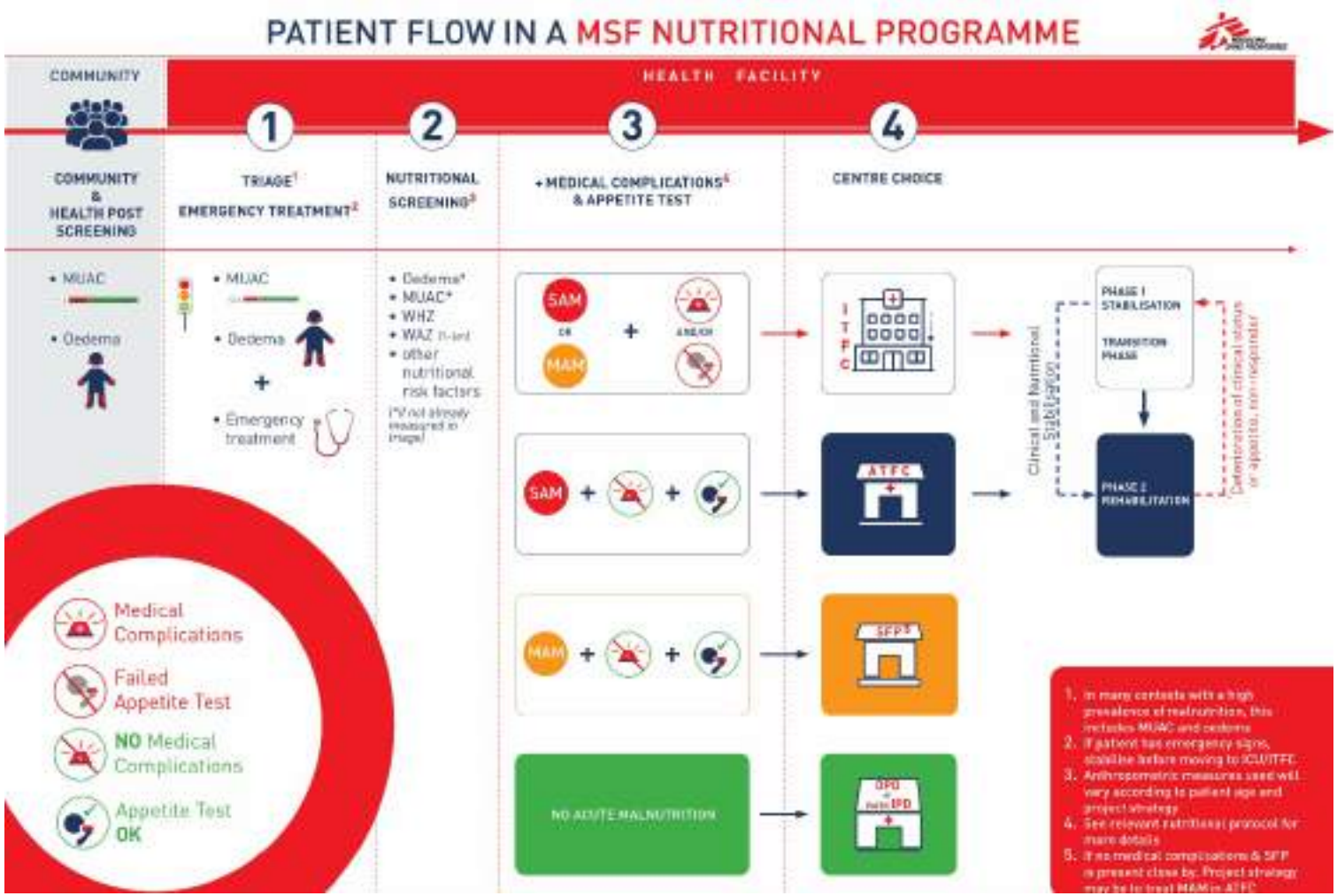
- Depending on the number of participants this can be done with the whole group together or in groups of 3/4.
- Each group will need paper and markers.
    - Participants are asked to design the patient flow from arrival to admission (or referral) in their current project:
        - **How would you improve the patient flow in the ATFC and/or ITFC in your project?**
    - If the training is for a new project and the flow is not set up yet, or it is the MoH who is doing it, we would ask the participants:
        - **How would you design a patient flow/circuit for an ATFC and/or ITFC?**
- If there is more than one group, each can present their ideas in the plenary.
- One option is to take a photo of the flipchart and send the participants' proposals to the nutrition advisor at the headquarters for feedback. When feedback arrives, it can be shared with the participants. Make sure you have an agreement first with the nutrition adviser for your section and you have made them aware when you would be sending the photos (to check they are available!) with a timeframe needed for feedback

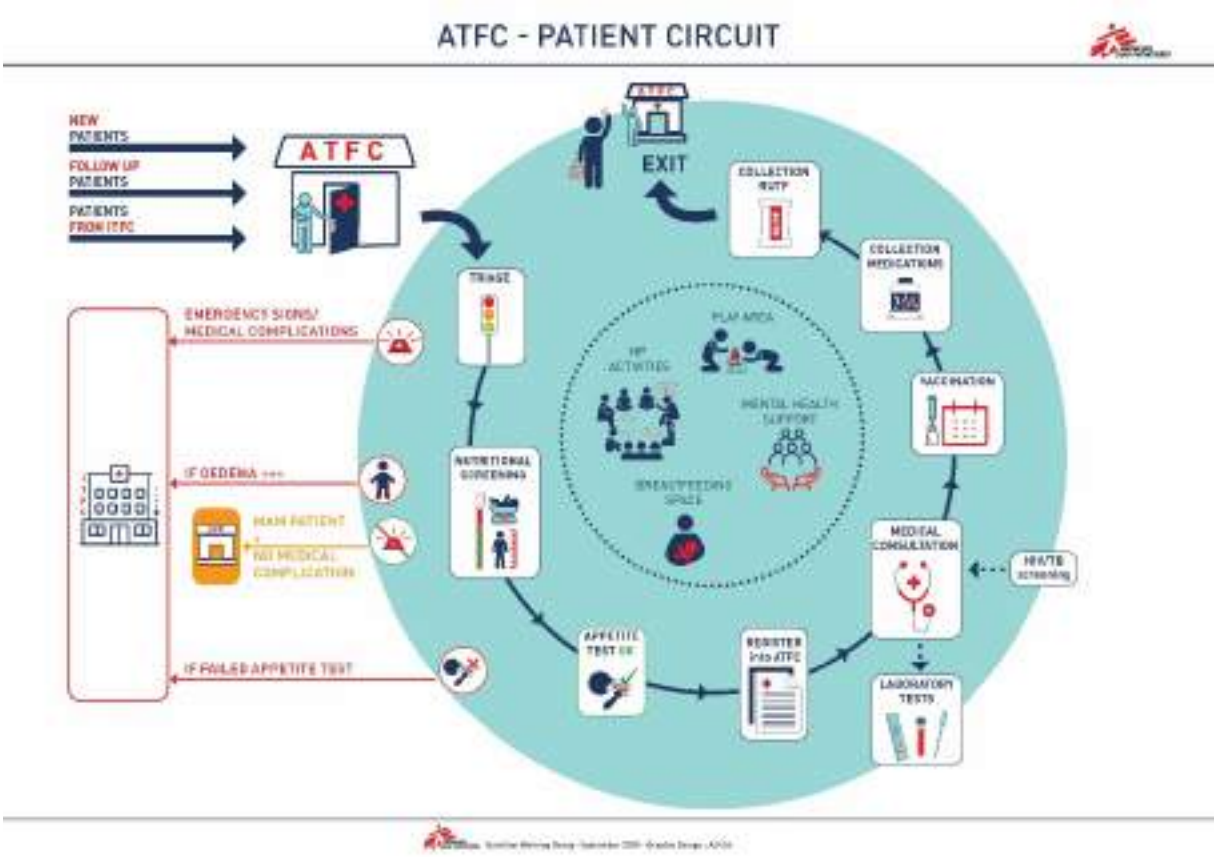
Activity 4: Wrap Up

(Whole group, 8 minutes)

- Facilitator provides feedback to the participants and presents an example of a patient flow with the main messages to be considered and do the wrap up of the session.

Examples of a patient flow **(NB! Patient flow can vary according to the physical space available, whether the ATFC/ITFC are integrated with other services or stand-alone, HR available, etc. What <u>must not</u> vary is a setup which allows children to be quickly triaged and seriously ill children given medical attention immediately):**





- During the wrap up, the facilitator will ensure that all the **key messages** have been mentioned during the session (by him or by the participants) or by the contrary, the facilitator will explain them before closing the session.

1. A triage area should be systematically organised in the waiting area (at arrival) for any nutrition programme. This may be integrated into an emergency department if the nutrition programme is integrated into a health facility or stand-alone if it is a vertical nutrition project
    - This allows staff to rapidly identify life threatening conditions (emergency signs) in patients that must be treated immediately (priority 1), those with serious conditions that should be treated rapidly (priority 2) and those who should be treated in turn (priority 3).
    - MUAC and oedema will be systematically included in the triage of contexts prone to malnutrition
    - At arrival, if it is already known that the child is malnourished (referral from ATFC because of medical complications or visibly wasted) they should be stabilised by staff trained in treating severely ill malnourished children (in the ED and then the ICU) and referred to the ITFC as soon as they are stable enough to move.
2. Checking for medical complications:
    - It is very important that those considered to be SAM or MAM by MUAC and/or oedema are immediately clinically examined
    - If they have medical complications meeting the ITFC admission criteria and/or oedema +++ they will be referred to the ITFC for stabilisation and treatment

3. Appetite test:
    - If they do not have medical complications needing inpatient admission, the appetite test will be done to decide if they will be referred to the ITFC or ATFC
4. Weight and height measurements
    - For the patients with medical complications needing emergency treatment, the weight and height will be done when possible, knowing that the priority is first to stabilise the patient.
    - For the patients without medical complications, the weight and height measurements will be done before the appetite test (the weight is needed to know how much RUTF to give the child in the appetite test)
5. Registration:
    - The patient will be only registered into the nutrition programme when it is known whether the patient will be admitted into the ATFC or ITFC. This is to avoid registering a patient twice and having a double registration (in the ATFC and in the ITFC). The patient may be registered into the emergency department (ED) register (if they are seen in one) to monitor work load of the ED
6. Waiting area
    - Sugar water (10%) should be available for all SAM children in the waiting area to prevent hypoglycaemia.
    - Staff must regularly monitor the children that are waiting to quickly identify sick or weak children who need medical assistance.
    - While patients and caretakers are waiting for the medical consultation, basic health promotion messages should be communicated
    - The system must be efficient to avoid children having to wait too long in the waiting area.

Takeaways

- The facilitators can handout printed copies or email the takeaways to the participants:
    - NP_M2_S6_Takeaway_ATFCFlow
    - NP_M2_S6_Takeaway_ITFCFlow
    - NP_M2_S6_Takeaway_PatientFlow
    - NP_M2_S6_Takeaway_WaterSugar
    - NP_M2_S6_Takeaway_KeyMessages

On the Job Training

The activity 3 could be done on the job training. Supervisors, nurses and nutrition assistants are asked to design or improve the patient flow from arrival to admission/referral in their current project.

- **How would you improve the patient flow in your ATFC and ITFC?**


UPDATED VERSION
NUTRITION WG
APPROVED
UPDATED VERSION