UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH AND SOCIAL WELFARE

TANZANIA FOOD AND DRUGS AUTHORITY


# Accredited Drug Dispensing Outlet Training

# Child Health Facilitation Guide

USAID FROM THE AMERICAN PEOPLE

MSH SPS Strengthening Pharmaceutical Systems

DUKA LA DAWA MUHIMU

TFDA Tanzania Food & Drugs Authority

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# CHILD HEALTH FACILITATION GUIDE

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## About SPS

The Strengthening Pharmaceutical Systems (SPS) Program strives to build capacity within developing countries to effectively manage all aspects of pharmaceutical systems and services. SPS focuses on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems and financing mechanisms, containing antimicrobial resistance, and enhancing access to and appropriate use of medicines.

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## ACRONYMS

| | |
|---|---|
| ADDO | Accredited Drug Dispensing Outlet |
| ALu | artemether-lumefantrine |
| ARI | acute respiratory infection |
| IMCI | Integrated Management of Childhood Illness |
| ITN | insecticide-treated nets |
| mg | milligram |
| ml | milliliter |
| MoHSW | Ministry of Health and Social Welfare |
| ORS | oral rehydration salts |
| SP | sulfadoxine-pyrimethamine |
| TFDA | Tanzania Food and Drug Authority |

## Training Schedule

| Session | Duration |
|---|---|
| **DAY 1** | |
| Session 1: Overview and Orientation | 45 min |
| Pre-training Evaluation | 30 min |
| Break | 15 min |
| Session 2: Framework of practice | 3 hours |
| Lunch | 60 min |
| Session 3: Management of malaria | 2 hours |
| **DAY 2** | |
| Session 3 continued: Management of malaria | 1 hour |
| Session 4: Management of acute respiratory infection | 1 hour |
| Break | 15 min |
| Session 4 continued: Management of acute respiratory infection | 2 hours |
| Lunch | 60 min |
| Session 5: Management of diarrhea | 2 hours |
| **DAY 3** | |
| Session 5 continued: Management of diarrhea | 1 hour and 30 min |
| Break | 15 min |
| Post-training assessment | 30 min |
| Closing | 30 min |

# SESSION 1: OVERVIEW AND ORIENTATION

***Duration: 45 minutes***

## Purpose

The purpose of this session is to welcome participants and provide them with the opportunity to get to know one another. They will familiarize themselves with the rationale, goal, and objectives of the training.

## Objectives

After completing this session, participants will be able to—

1. Give names and some information about the other participants and the facilitators
2. Outline the goal and objectives of the child health training
3. Recall the training schedule

## Getting Started

Spend a few minutes at the beginning of the training to:

- Welcome the participants
- Introduce the facilitators
- Let the participants know the times of coffee and meal breaks
- Any other 'house keeping' items

## Activity 1: Introductions

### *Purpose*

- To start proceedings on a relaxed and informal note
- To introduce each participant
- To share information about group members and facilitators

### *Procedure:*

1. Ask each participant to write his/her name on a piece of card and place it on the table in front of him/her.

2. Ask participants one by one to stand up and present themselves to the large group in 2 minutes or less, giving information on the areas listed below and on the flipchart.

*Note:* The presentations can include whatever information is most relevant to the course participants – see example below.

- Name
- Location of Work
- Likes/Dislikes
- Family Situation
- Favorite Food

## Activity 2: Rationale for the Training, Goals, and Objectives

### *Why Focus on Diarrhea, Malaria, and ARI?*

In Tanzania, malaria, acute respiratory infections (ARI), and diarrheal diseases are the main causes of morbidity and mortality in children under five years of age. Together, they account for over 50 percent of all cases of childhood morbidity and mortality (Health Statistics abstract, Ministry of Health, 1995). Children under the age of five years are the focus of this training because they are particularly at risk for these conditions.

### *Integrated Management of Childhood Illness*

Integrated management of childhood illness (IMCI) is a strategy implemented by the Tanzanian Ministry of Health and Social Welfare (MoHSW) to improve child health as a way of reducing child mortality. It involves seeing the sick child holistically and not just categorizing the sickness as one diagnosis. It also includes preventive measures such as vaccination, nutritional advice, insecticide-treated nets (ITNs) use, and personal hygiene etc.

IMCI was first introduced in 1996, and since then, over 90 districts in the country have implemented this strategy. Nurses; clinical officers; and doctors of public dispensaries, health centers, and hospitals are trained in IMCI for 11 days. Preliminary evaluation of this strategy shows that IMCI has been effective in improving treatment of sick children in public health facilities. Since this improvement is limited to the public sector, it is time for the private sector, including Accredited Drug Dispensing Outlets (ADDOs), to get this training, especially because many caregivers of sick children obtain medicines from private pharmacies.

Children will be effectively and successfully treated if they get timely and appropriate medical care. If parents/caregivers wait for their child to get very sick before seeking care, or if they decide to take their sick child to a traditional healer instead, there is a greater chance that the child will die from the ailment. Therefore, educating caregivers to immediately seek care at a health facility or ADDO is a crucial component of caring of sick children. IMCI implementation in ADDOs has three major components—

1. **Training and continuing education**
   Will focus on strengthening ADDO dispensers' capacities in identifying the danger signs and symptoms of three common childhood diseases (malaria, ARI, and diarrhea), so that they can provide appropriate care (treatment or referral).

2. **Community mobilization**
   Community mobilization aims at enabling communities and caretakers to identify danger signs and symptoms of three common childhood diseases; seeking appropriate care in a timely manner and rational medicine use. Different communication methods will be used in mobilization (radio, flyers, posters, village meetings, seminars, and traditional dances and drama).

3. **Monitoring and supervision**
   Monitoring and supervision of child health activities in ADDOs will be implemented in accordance to the current Tanzania Drug and Food Authority (TDFA) guidelines. Dispensers will have registers, monthly reporting, quarterly reporting, and supervision forms.

This training aims at improving the practices of ADDO dispensers with respect to common childhood conditions: malaria, ARI, and diarrhea. It is designed in line with the IMCI strategy and National Malaria Control Programme guidelines.

## Objectives of the Training

To strengthen and improve ADDO services in the management of malaria, ARI, and diarrhea.

### *Specific Objectives*

- To improve dispensers' capacity in identifying the danger signs and symptoms of three common childhood diseases

- To improve dispensers' capacity in providing care including, decision making, appropriate treatment, counseling, and referral

- To improve dispensers' capacity in educating parents/caretakers on looking for danger signs at home, feeding during illness, and preventing diseases

## SESSION 2. FRAMEWORK OF PRACTICE

***Duration: 3 hours***

### Purpose

The purpose of this session is to outline the necessary steps to be taken in the screening process to determine a rational course of action. These steps will be used by ADDO dispensers when caring for a sick child.

### Objectives

After completing this session, participants will be able to—

- Indicate the elements of the framework of practice
- Describe the necessary steps involved in determining a rational provisional diagnosis
- Understand and list the criteria for referral

### *Teaching and Learning Methods*

- Lecture/discussion
- Group discussion
- Brain storming
- Exercises
- Role play

### *Teaching Materials*

- Facilitators' guide
- Dispensers training manual
- Flip chart
- Job Aids
- Marker pens
- Referral form

### Interactive Presentation

***Duration: 45 minutes***

**Explain:** The ADDOs in the community are often the first stop where patients seek treatment or medical advice. To provide appropriate treatment and medical advice, ADDO dispensers need to

have adequate knowledge to assess the signs and symptoms of ill health presented to them, particularly those of children under five years of age who are at great risk of dying.

In general, when caretakers seek medical advice, the consultation falls into one of the following categories—

- A customer requests a specific product
- A customer presents his or her child's diagnosis
- The customer explains his or her child's signs and symptoms

**Explain:** The outcomes of the above consultation include giving advice, treatment, or referral depending on the condition of the child. ADDO dispensers should always remember that they are to provide services in accordance to the framework of practice and NOT according to what the caretaker/parent wants. Therefore, the dispensers need to be able to carry out a preliminary screening process both quickly and accurately.

**Explain:** ADDO dispensers need sufficient background knowledge to determine a rational course of action. They need sufficient specific knowledge of symptoms, diseases, and treatments to—

- Determine an appropriate course of action
- Decide whether it is within their competence and the caretaker's interest to treat the condition
- Recommend referral to a health facility when appropriate

### *General Framework for Treatment or Referral*

**Activity**

Divide the participants in small groups of six. Provide each small group with an envelope which has small pieces of paper each having a step written out. Participants in their small groups will work to arrange them in such a way that they form a framework to follow in determining appropriate action to take for a sick child

**Explain:** This framework ensures a systematic approach to care in determining treatment or referral.

ADDO dispensers will learn to manage a sick child following the screening process that involves three main steps—

1. Evaluation
   - Assessing signs and symptoms

- Taking a customer history

2. Referral (if appropriate)

3. Management
   - Recommending medicine for purchase
   - Dispensing the medicine
   - Counseling
     - Explaining dosage and duration
     - Advising caretaker to increase fluids intake
     - Advising when to go to the health facility

**Explain:** Observation and careful systematic history taking can provide valuable indicators to help the dispenser recognize the signs and symptoms and recommend the appropriate actions.

## Step 1. Evaluation

***Duration: 45 minutes***

### *Assessing Signs and Symptoms*

Let's first understand the difference between signs and symptoms.

**Ask participants**: What is a **sign** and what is a **symptom?**

Propose some concrete examples to help explain the difference if participants are unsure how to respond. Possible examples could be—

- Is a cough a sign or a symptom? (sign)
- Is vomiting a sign or a symptom? (sign)
- Is abdominal pain a sign or a symptom? (symptom)
- Is a headache a sign or a symptom? (symptom)
- Is loss of appetite a sign or a symptom? (symptom)
- Is thirst a sign or a symptom? (symptom)
- Are sunken eyes a sign or a symptom? (sign)
- Is fast breathing a sign or a symptom? (sign)
- Is unconsciousness a sign or a symptom? (sign)

**Activity**

- Prepare pieces of paper with either a sign or symptom from the above example written on them. Ask one participant to pick a piece of paper, read it aloud, and tell the group if what she/he just read was a sign or symptom. Repeat this activity for about ten people.

OR

- Distribute red and green flashcards to all participants; inform participants that a red card represents signs and green card symptoms. Participants should raise one of the cards as you read out the above signs and symptoms.

## *Provide clear definitions of signs and symptoms*

- A **sign** is any objective evidence of disease. It can be detected by a person other than the affected individual. For example, blood in the stool is a sign of disease.

- A **symptom** is any subjective evidence of disease. It is something only the patient can know. For example, abdominal pain is a symptom.

## *Danger Signs by Age Group*

*Instructions*

- Ask participants to mention any danger sign they know or have seen in their work places
- Write the responses on a flip chart
- Summarize the discussion, emphasizing the danger signs by age group as follows

**Table 1. Danger Signs by Child's Age**

| Below 2 months of age | 2 months up to 5 years of age |
|---|---|
| • Not feeding well<br>• Fast breathing (60 breaths per minute or more)<br>• Severe chest in-drawing<br>• Convulsions<br>• Fever (38°C or more or feels hot)<br>• Low body temperature (less than 35.5°C)<br>• Skin pustules<br>• Umbilicus red or draining pus<br>• Movement only when stimulated or no movement even when stimulated<br>• Grunting | • Not able to drink or breastfeed<br>• Vomits everything<br>• Convulsions<br>• Very sleepy (lethargic) or unconscious |

**Explain:** The relevant signs and symptoms relating to each of the conditions we are considering will be covered in the individual sessions. It is important to recognize the signs and symptoms of these conditions and to determine when they indicate severe illness.

**Note:** A child presenting with any of the above danger signs should immediately be referred to a nearby health facility. A referral note should be prepared for the parent/caretaker to take to the health facility.

### *Taking a Customer History*

**Explain:** Taking a history is important because the history may alter the recommended treatment or action. Therefore, a simple protocol to follow in IMCI/ADDO is to ask the following questions—

- Who is the medicine for? If for a child, ask his/her age.
- How long has the child had the signs and symptoms?
- What other symptoms does the child have?
- Has action already been taken, including any medicines already taken?

## Step 2. When to Refer

***Duration: 30 minutes***

**Explain:** After assessing the signs and symptoms and taking a patient history, you may determine that it would be in the best interest of the patient to refer him/her to a health facility.

**Ask participants:** "In what context would you refer a sick child to a health facility?"

- Encourage participants to offer criteria and provide examples from their own experiences of making the decision to refer a sick child to a health facility.

- Write all responses on flip chart or the board.

- Be sure to include any criteria missed by the participants. (Try to make the stories specific to children under the age of five.)

Basic criteria for referral are as follows—

- If at any stage you identify the presence of any danger sign and specific critical conditions

- If you consider you are not competent to make a decision

- If you think further investigation is needed

- If you think the sick child needs services or treatment available from a health facility that are superior to what you can offer, for example, if injections are required

## *Referral*

### *Four Steps to Follow When Referring a Child*

1. Explain to the parent/ caretaker the need for referral, and encourage him/her to consent to the referral. If he/she does not agree to the referral, find out why. The reason could be that the parent/caretaker—

    - Fears that his/her child will die in the hospital
    - Does not believe that the health facility will be helpful
    - Has other children at home to take care of, has other responsibilities to attend to, or may lose his or her job
    - Cannot afford to pay for transportation, medicines, or food if child is admitted

2. Reassure the parent/caretaker and as much as you can try to help. For example—

    - If he/she fears that the child may die at the health care facility, offer reassurance that health facilities have personnel that are trained and have access to proper medicines and equipment to specifically deal with these problems. If he/she needs help at home, ask whether she/he has a spouse or other family members that could help.
    - Discuss how they will get to the health facility and arrange for transportation if needed.
    - It is important to note that under any circumstances, the dispenser should ensure that the child is taken to a health facility.

3. Give the parent/caretaker a referral note; ask them to present the note to the facility health care worker.

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**Referral form**

Name of a sick person _____ Sex___ Age ____

Address _____ Date _____ Time ___

Name of ADDO _____

Signs observed or from history_____

Treatment provided to the sick person before referral _____

Name of health facility to which the sick person is being referred _____

Name of dispenser giving referral _____

Signature of the dispenser _____

---

*This section should be filled in by the health worker of the receiving health facility and should be returned to the ADDO from where the referral was made*

From_____(name of health facility) which is located at_____(physical address)

To _____(name of ADDO) which is located at_____(physical address)

Name of a sick person_____ Sex_____
Was received at our health facility on_____

Name of the Health Worker_____

Designation_____ Signature_____
Date_____

4. Give pre-referral treatment and instructions necessary to care for the child during transport to a health facility.

- Provide additional medicines and supplies if the health facility is far and give instructions accordingly

- If you think they will not go to a health facility, provide the caretaker with a full course of treatment and teach him/her how to give it

- Advise the parent/caretaker to keep the child warm

- Advise the parent/caretaker to feed the child more frequently

## Step 3. Management

***Duration: 30 minutes***

Effective disease management involves much more than simply selling medicine. It requires selling the appropriate medicine for the condition and for the patient. A sick child must also be given the medication correctly, and parents or caretakers should be able to realize when or whether they should return for an additional or alternative treatment. Dispensers help parents/caretakers understand how a medication should be taken to be most effective. If they succeed in providing the medication correctly, the medication will be more effective.

### *Recommendation of Medicine for Purchase*

The choice of medicine will depend on the evaluation of the patient, and recommendations should always comply with accepted national guidelines.

**Ask participants:** "What is your role in treating a sick child?"

Possible responses are—

- Selling appropriate medicines
- Advising parent/caretaker on correct medicine use
- Advising parent/caretaker on when to return for additional or alternative treatment
- Referring the patient

Write all responses on flip chart. Be sure to discuss any points missing from participant responses.

### *Dispensing*

**Explain:** One major difference between supply in medicines and supplying other goods is that with medicines the customer usually does not know the correct use and is unable to judge the quality of the product he or she receives. Therefore, the responsibility for the correctness and quality of medicines lies entirely with the person dispensing or selling them. This is true whether the dispenser is recommending a product or dispensing from a prescription.

## *Counseling*

**Explain:** Just labeling a medicine is not sufficient. The customer must also be given these instructions verbally; both for reinforcement of the message and also in case the caretaker forgets the oral instructions or cannot read the label.

**Ask participants:** "What kind of information should you provide to parents/caretakers about the medication you are selling to them?"

Write all responses on flip chart. Be sure to discuss any points missing from participant responses.

Basic information that should be given to parent/caretakers includes—

- Why the child is taking the medication
- The amount of medicine to take
- How often to take the medicine
- How long to take the medicine
- The importance of completing a treatment course unless serious adverse effects occur
- Possible adverse effects and what action to take if they occur
- When to take in relation to food, whether to take with water
- Interactions with other substances (e.g. food) and medications
- Storage requirements for the medicine at home with regard to heat, light, and moisture

For ORS—

- When dispensing ORS for home preparation, how the caretaker/parent should prepare it

If the parent/caretaker has a prescription, he/she may have received some of this information; it is important, however, for the dispenser to repeat the information and ensure understanding.

If the condition of a sick child does not respond to the recommended treatment or signs and symptoms worsen, it is possible that—

- The assessment may have been incorrect
- The disease is resistant to the medication

In either case, the patient should be referred to a health facility for further management.

## *Complementary Advice*

- In all cases, emphasize the need to provide extra fluids or increase frequency of breastfeeding (if appropriate). Also, as the child recovers, he/she will need an extra meal every day for two weeks to regain his/her strength.

- Where appropriate, additional advice relating to the condition should be given, for example, about rehydration, nutrition, hygiene, vaccination, use of ITNs.

**Summarize the Session**

***Duration: 30 minutes***

Distribute the handout (Annex 1) on framework of practices and summarize the chapter by highlighting the importance of following the framework of practice in determining a rational course of action

1. Evaluation
    - Assessing signs and symptoms
    - Taking a patient history

2. Referral (if appropriate)

3. Management
    - Recommending medicine for purchase (when there is no prescription)
    - Dispensing
    - Counselling
        - Dosage and duration (administration)
        - Failure to improve
        - Complementary advice

## SESSION 3. MANAGEMENT OF FEVER/MALARIA

***Duration: 3 hours***

### Purpose

The purpose of this chapter is to review the signs and symptoms of childhood malaria and to explain the appropriate treatment guidelines for the new combination therapy, artemether/lumefantrine (ALu). In this session, we shall learn about the necessary steps for attending to a child with fever.

### Objectives

After completing this session, the participants will be able to—

- Identify the correct antimalarial for treatment
- Describe desired practices for malaria based on IMCI and National Malaria Control Program (NMCP) guidelines

#### *Teaching and Learning Methods*

- Lecture/discussion
- Small group discussion
- Brain storming
- Exercise
- Role play

#### *Teaching Materials*

- Facilitators guide
- Dispensers training manual
- Flip chart
- Marker pens
- Patients' register
- Referral form
- Red and green flash cards

### Interactive Presentation

**Explain**: When a parent/caretaker enters your ADDO with a child that has fever/malaria, follow the framework of practice that we outlined in the previous session. You will need to assess the

signs and take a patient history. In doing so, you can determine the severity of illness and provide appropriate advice concerning treatment, referral, or both. In this section, we will review specific desired practices for cases of childhood fever/malaria that will need to be incorporated into the management.

## *Assess the Severity of the Illness*

***Duration: 25 minutes***

| **Activity** |
| --- |
| Distribute red and green flashcards to all participants; inform participants that a red card represents severe malaria and green card uncomplicated malaria. Participants should raise one of the cards as you read out signs and symptoms of malaria. |

### *Severe Malaria*

The signs of severe malaria, as discussed in the previous session, include the following—

- Unable to drink or breast-feed
- Vomits everything that is eaten or drunk
- Convulsions
- Lethargic (very weak and not alert to what is happening around him/her) or unconscious (sleeping all the time and not responding to stimulation)

Also for malaria—

- Severe pallor
- Fever

Remind the participants of the urgency of getting immediate clinical care at a referral site for any child with the above signs.

## *Uncomplicated Malaria*

- Fever
- Chills
- Vomiting
- Diarrhea
- Poor appetite

## *Treating Fever/Malaria*

***Duration: 25 minutes***

### *Severe Malaria*

Promptly refer a child with severe malaria to a health facility and write a referral note for a caretaker.

### *Uncomplicated Malaria*

The MoHSW recommends an artemisinin-based combination therapy (ACT) of 20 mg artemether and 120 mg lumefantrine (ALu) for treating uncomplicated malaria.

The following table is a summary of the first-line national treatment guidelines for uncomplicated malaria.

**Table 2. Guidelines for ALu**

| | | Day 1 | | Day 2 | | Day 3 | |
|---|---|---|---|---|---|---|---|
| WEIGHT | AGE | Start Dose | After 8 hrs* | Morning | Night | Morning | Night |
| 5 - 15 kg | 3 months up to 3 years | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 - 25 kg | 3 years up to 8 years | 2 | 2 | 2 | 2 | 2 | 2 |
| 25 - 35 kg | 8 years up to 12 years | 3 | 3 | 3 | 3 | 3 | 3 |
| 35 kg and above | 12 years and above | 4 | 4 | 4 | 4 | 4 | 4 |

*Strictly after 8 hours

**Example: Time schedule for first and second dose of ALu**

| *1st dose* | *2nd dose* | *1st dose* | *2nd dose* |
|---|---|---|---|
| 1:00 AM | 9:00 AM | 1:00 PM | 9:00 PM |
| 2:00 AM | 10:00 AM | 2:00 PM | 10:00 PM |
| 3:00 AM | 11:00 AM | 3:00 PM | 11:00 PM |
| 4:00 AM | 12:00 PM | 4:00 PM | 12:00 AM |
| 5:00 AM | 1:00 PM | 5:00 PM | 1:00 AM |
| 6:00 AM | 2:00 PM | 6:00 PM | 2:00 AM |
| 7:00 AM | 3:00 PM | 7:00 PM | 3:00 AM |
| 8:00 AM | 4:00 PM | 8:00 PM | 4:00 AM |
| 9:00 AM | 5:00 PM | 9:00 PM | 5:00 AM |
| 10:00 AM | 6:00 PM | 10:00 PM | 6:00 AM |
| 11:00 AM | 7:00 PM | 11:00 PM | 7:00 AM |
| 12:00 PM | 8:00 PM | 12:00 PM | 8:00 AM |

The dispenser should give the first dose as DOT; the second dose should exactly be given after eight hours; subsequent doses could be given twice daily (morning and evening) in the second and third day of treatment until completion of six doses.

**Explain:**

- All fevers in children should be treated as malaria.
- The first dose of ALu should preferably be administered at the ADDO.
- ALu should be taken after a meal or breastfeeding to enhance its absorption.
- Re-administer ALu 30 minutes after vomiting or spitting out tablets.
- Explain the importance of completing the treatment course: to reduce the risk of developing severe malaria and also the risk of developing resistance to ALu.

If the sick child does not get better after three days of using ALu or signs and symptoms worsen, it is possible that:

- He/she has vomited the medication.
- The dosage was not appropriate for the child's age, or she/he did not complete treatment.
- The fever was not due to malaria.

In the case that the child does not get better after three days of ALu treatment or signs and symptoms worsen, the child should be referred to a health facility for further management.

### *Fever*

In addition to the antimalarial treatment, the child needs an antipyretic like paracetamol to bring the fever down. Commonly available brand names for paracetamol are Panadol and Sheladol. A generic medicine is of equal quality.

**Table 3. Guidelines for Paracetamol**

| Give Paracetamol every 4 to 6 hours | | | |
|---|---|---|---|
| **Age** | **Tablet (100 mg)** | **Tablet (500 mg)** | **Syrup 125 mg/5 mls** |
| 2 to 35 months | 1 | ¼ | 5 ml (1 tsp) |
| 3 to 5 years | 2½ | ½ | 10 ml (2 tsp) |

**ml = milliliter, mg = milligram, tsp = teaspoon**

## *Provide Advice on How to Give the Child Medication*

***Duration: 10 minutes***

As mentioned in the framework—

- Explain to the parent/caretaker what the correct dose is and how to give the medicine (refer to dosage chart for the correct dose for age)
- Show how to measure a dose, especially for syrup form
- Explain in detail how to administer the medicine (number of times per day and for how long), and then write instructions on the packet
- Explain that the medicine should be taken until the end of the course, even if the child gets better before
- Discuss the most common side effects of ALu. These include—
  - Insomnia, sleeplessness
  - Headache
  - Dizziness
  - Nausea and loss of appetite
  - Abdominal pain
  - Urticaria, mild skin irritation or Pruritus
  - Mild cough
  - Joint pains and mylagia
  - Transient ataxia
- If the side effects are severe, refer the child to a health facility
- Side effects of ALu should be reported in the Adverse Drug Reaction forms (Annex 2)

## *Recommend Giving Fluids and Continuing Feeding/Breastfeeding During Illness*

***Duration: 5 minutes***

Inform the parent/caretaker that fluids and food are very important to help the child fight the malaria parasite and recover more quickly. Fluids also help reduce the child's fever and compensate for the fluids lost in sweating.

## *Check/Inquire about Cough and Difficult/Rapid Breathing and Diarrhea*

***Duration: 5 minutes***

Children often have more than one illness, and the parent/caregiver may not think to mention all of the child's symptoms; therefore, it is necessary to inquire about any other symptoms.

- If the child also has a cough and difficult/rapid breathing, follow the procedures and treatment outlined in the session on cough and difficulty breathing

- If the child also has diarrhea, he/she should be treated following the procedures and treatment outlined in the session on diarrhea

## *Explain Symptoms That Require Immediate Medical Care*

***Duration: 10 minutes***

Explain to the parent/caretaker symptoms that require immediate medical care. Explain that these signs can lead to death in young children. Be sure to mention the following signs—

- The danger signs (unable to drink or breastfeed, vomits everything, convulsions, lethargic, or unconscious)

- Fever persists two days after treatment of malaria

- No improvement or getting worse

Make sure that the parent/caregiver has understood instructions before leaving by asking him/her to repeat the instructions.

**Explain:** ADDO dispensers have an important role to play in advising parents/caretakers what these symptoms are that require urgent medical care. If a parent/caretaker observes any of these symptoms, the child should immediately be taken to a health facility.

## *Insecticide-Treated Nets (ITNs) for Children and Pregnant Women*

***Duration: 10 minutes***

**Explain:**

- ITNs provide a physical barrier to mosquitoes at night, the time when they are most likely to bite.
- ITNs are impregnated with a safe insecticide that provides extra protection if, for example, there are holes in the net.
- Preventing malaria in pregnant women is important because malaria can cause complications during pregnancy.

**Ask participants:** "Are you involved in the National Discount Voucher System for ITNs?"

If they are not, discuss why not and what are the barriers to stocking the nets.

## Activity: Small Group Practice/Role Play

***Duration: 60 minutes***

### *Instructions*

- Divide the participants into groups of four. Each group will need to identify two people to participate in the role play and two people to observe and report on the interaction. For the second role play, participants switch roles and actors become observers and observers become actors. Everyone should have the opportunity to participate in the role play.
- Distribute the patients' register to the groups, so they can fill in their assessment and decisions during the role play.
- During the role play, participants should look for the following—
  - Was the assessment done as outlined in the framework of practice?
  - Did the patient need referral? If yes, was it appropriately given?
  - Was the recommended treatment given and the dosage correct?
  - Was the proper advice on how to give medication given?
  - Was advice given on nutrition (feeding and drinking) and ITN use?
  - Was the register filled in appropriately?
- At the end of this role play, each group should discuss what worked, what was missing, whether the correct advice was provided, and what could have been done better.
- Allow 15 minutes for each role play and discussion.

- Facilitators should circulate among the small groups, giving advice as necessary.

- After the activity is completed, bring the group together again to discuss reactions and comments from the role play.

**Role Play 1.** A parent/caretaker has gone to the ADDO to buy antimalarials for his/her one-year-old child who has been having fevers for the past 2 days.

**Role Play 2.** A parent/caretaker has come to your ADDO for consultation because his/her child has been having fevers for the past three days and had convulsions yesterday.

**Summarize the Session**

*Duration: 30 minutes*

Distribute the handout (annex 3) on Management of Malaria and summarize the chapter by highlighting the importance of following the framework of practice in managing malaria

## SESSION 4. MANAGEMENT OF ACUTE RESPIRATORY INFECTIONS

***Duration: 3 hours***

### Purpose

Childhood cases of ARI are often mistakenly diagnosed as pneumonia and incorrectly treated with antibiotics. The purpose of this chapter is to examine the signs and symptoms of pneumonia and to discuss ARI management while limiting the potential for the development of drug resistance and irrational use of antibiotics.

### Objectives

After completing this session, participants will be able to—

- Distinguish between pneumonia and non-pneumonia ARI based on an assessment of signs and symptoms
- Describe target practices for ARI based on IMCI guidelines
- Treat children who have coughs and common colds but no pneumonia

### *Teaching and Learning Methods*

- Lecture/discussion
- Small group discussion
- Brainstorming
- Exercise
- Role play
- IMCI video

### *Teaching Materials*

- Facilitator's guide
- Dispensers training manual
- Flip chart
- Marker pens
- Patients register
- Referral form
- Watch (digital or analog with a second hand)

## Interactive Presentation

***Duration: 25 minutes***

**Explain:** There are three categories of ARIs

- Non-pneumonia cough or cold
- Pneumonia
- Severe pneumonia

Distinguishing between the three categories is important because the treatment will depend on this determination. Therefore, signs and symptoms must be carefully assessed.

**Ask participants:** "What are the signs and symptoms for a child with cough or cold and no pneumonia?"

Signs and symptoms of a child with cough or cold but without pneumonia are as follows—

- Runny nose
- Sneezing
- Sore throat
- Headache
- Cough
- Possible fever

**Ask participants:** "What are the signs and symptoms for a child with pneumonia?"

**Explain:** Signs and symptoms of pneumonia include cough and/or difficulty in breathing and fast breathing.

**Ask participants**: "What is considered rapid breathing?"
"Have you seen a child with rapid breathing?

The table below shows what is considered "rapid breathing."

**Table 4. Fast Breathing**

| Age | Breathing is fast when Respiratory Rate is |
|---|---|
| Less than 2 months | 60 breaths per minute or more |
| 2 months up to 12 months | 50 breaths per minute or more |
| 12 months up to 5 years | 40 breaths per minute or more |

**Explain:** It is important to correctly assess the signs and symptoms to determine the appropriate treatment. Management of ARIs is aimed at treating the cause of infection, that is, bacteria in the case of pneumonia or virus in the case of cough/cold.

The following table presents signs and symptoms of cough/cold, pneumonia, and severe pneumonia.

**Table 5. Signs and Symptoms of Non-Pneumonia, Pneumonia, and Severe Pneumonia**

| Category | Signs and Symptoms |
|---|---|
| Non-pneumonia/cough | Cough, runny nose, sneezing, sore throat, headache, and possible fever |
| Pneumonia | Difficulty in breathing, fast breathing, possible cough, and possible fever |
| Severe pneumonia | Unable to drink or breast-feed<br>The child vomits everything<br>Convulsions<br>Lethargic or unconscious<br>Stridor/wheezing<br>Lower chest indrawing |

**Explain:** When a parent/caretaker brings a child that has ARI to your shop, follow the framework of practices that we outlined in the previous sessions. You will need to assess the signs and symptoms and take a patient history. In so doing, you can determine the severity of illness and provide appropriate advice concerning treatment, referral, or both.

## Assess the Severity of the Illness

***Duration: 60 minutes***

**Explain**: Signs of severe illness are (as previously discussed)—

- Not able to drink or breast-feed
- Vomits everything he/she drinks
- Convulsions
- Lethargic or unconscious

In addition to the signs mentioned above, others symptoms specific to ARI are

- Chest in-drawing
- Stridor/wheezing

### *IMCI Video*

Show the danger signs, chest in-drawing and rapid breathing on the video and do the corresponding exercises (30 minutes).

### *Check/Inquire about Rapid Breathing for Pneumonia*

If rapid breathing is present, the child has pneumonia and should be referred to a health facility where he/she can get a prescription for the antibiotic co-trimoxazole. If the health facility is far away, then recommend the appropriate dosage for co-trimoxazole.

**Ask participants**: "How do you treat ARI?"

## Treatment for Acute Respiratory Infections

***Duration: 20 minutes***

### *Cough/Cold (Non-Pneumonia)*

If a child has a cough/cold and no danger signs or rapid breathing, the child most likely does not have pneumonia. Most cases of cough or cold are caused by viruses and therefore will not respond to antibiotics. The appropriate treatments are:

- Paracetamol for fever and headache
- Inoffensive remedy, such as lemon tea and honey, for children over six months of age or breast milk for infants

**Emphasize**: Antibiotics are not useful in treating non-pneumonia cough or cold, neither are cough syrups (expectorants and suppressants). Most cases of non-pneumonia cough or cold are caused by a virus and therefore will not respond to an antibiotic.

### *Rapid Breathing (Pneumonia)*

If rapid breathing is present, an antibiotic is urgently needed to treat pneumonia. Refer the child to a health facility; if the health facility is far, then give the child co-trimoxazole, the recommended first-line antibiotic for treating pneumonia. Other brand names for co-trimoxazole available in the local shops include Bactrim® and Cotrim.®

**Table 6. Guidelines for Co-trimoxazole**

| | **Co-trimoxazole (trimethoprim + sulfamethoxazole) Give twice a day for 5 days** | |
|---|---|---|
| **Age** | **Adult tablet** (80 mg trimethoprim + 400 mg sulfamethoxazole) | **Syrup** (40 mg trimethoprim + 200 mg sulfamethoxazole) |
| 1–2 months | 1/4 | 2.5 ml (1/2 tsp) |
| 2–12 months | 1/2 | 5.0 ml (1/2 tsp). |
| 12 months–5 years | 1 | 7.5 ml (1–1/2 tsp) |

### *Provide Advice on Giving Medication to the Child*

***Duration: 10 minutes***

- Explain to the parent/caretaker what the correct dose is and how to give the medicine (refer to the dosage chart for the correct dosage by age)
- Show the parent/caretaker how to measure a dose, especially for syrup

- Explain to the parent/caretaker how to administer the medicine (number of times per day and for how long) and then write instructions on the packet

- Explain the potential side effects of co-trimoxazole: hypersensitivity reactions, blood effects, and skin reactions and that if the side effects are bad, take the child to a health facility

- Explain that the medicine should be taken until the end of the course, even if the child gets better before finishing medicine

### *Recommend Fluids and Continued Feeding/Breastfeeding During Child's Illness*

***Duration: 5 minutes***

**Ask the participants**: "Why is it important to give a child plenty of fluids and to continue feeding/breastfeeding in the case of ARI?" (Encourage brainstorming)

**Explain**: Fluids soften the mucus in the chest and help the child get rid of it. Feeding is essential to maintaining nutrition and helping the child fight the virus causing cough/cold.

### *Check/Inquire about Fever and Diarrhea*

***Duration: 5 minutes***

Children often have more than one illness and the parent/caregiver may not think to mention all of the child's symptoms. Therefore, it is necessary to inquire about any other symptoms.

- If the child also has a fever, follow the procedures and treatment outlined in the chapter on malaria

- If the child also has diarrhea, he/she should be treated following the procedures and treatments outlined in the chapter on diarrhea

### *Explain Signs That Require Immediate Medical Care*

***Duration: 10 minutes***

Explain to the parent/caretaker symptoms to watch for that would require immediate medical care. Explain that these signs can lead to death in young children. Be sure to mention the following signs:

- Danger signs (unable to drink or breastfeed, vomits everything, convulsions, lethargic or unconscious)

- Fever persists two days after treatment of malaria

- No improvement or getting worse

Make sure that the parent/caregiver has understood before she/he leaves by asking him/her to repeat the instructions.

**Explain:** ADDO dispensers have an important role to play in advising parents/caretakers what the signs are that require urgent medical care. If a parent/caretaker recognizes any of these signs, the child should immediately be taken to a health facility.

## Activity: Small Group Practice/Role Play

***Duration: 75 minutes***

### *Instructions*

- Divide the participants into groups of four. Each group will need to identify two people to participate in the role play and two people to observe and report on the interaction. For the second role play, participants switch roles and actors become observers and observers become actors. Everyone should have the opportunity to participate in the role play.

- Distribute the patients' register to the groups so that they fill in their assessment and decisions during the role play.

- During the role play, participants should look for the following—
  - Was assessment done as outlined in the framework of practice?
  - Did the patient need referral? If yes, was it appropriately given?
  - Was the recommended treatment given and the dosage correct?
  - Was proper advice on how to give medication given?
  - Was advice on nutrition (feeding and drinking) given?
  - Was the register filled in appropriately?

- At the end of this role play, each group should discuss what worked, what was missing, whether the correct advice was provided, what could have been done better.

- Allow 15 minutes for each role play and discussion.

- Facilitators should circulate among the small groups, giving advice as necessary.

- After the activity is completed, bring the group together again to discuss reactions and comments from the role play.

***Role Play 1.*** A parent/caretaker has come to your ADDO with a seven-month-old child who has been coughing for two days.

***Role Play 2.*** A parent/caretaker has come to your ADDO with a one-year-old child who is coughing and has a breathing rate of "64 breaths per minute."

***Role Play 3.*** A parent/caretaker who has a two-year-old child has come to your ADDO because the child has a cough, difficulty breathing, and chest in-drawing.

**Summarize the Session**

*Duration: 30 minutes*

Distribute the handout (annex 4) on management of ARI and summarize the chapter by highlighting the importance of following the framework of practice in the management of ARI

## SESSION 5. MANAGEMENT OF DIARRHEA

***Duration: 3 and 1/2 hours***

### Purpose

Diarrhea causes dehydration that, if left untreated, can lead to death in young children. The purpose of this session is to explain the aims of managing diarrhea while outlining the signs of severe illness. Appropriate treatment guidelines are reviewed and the use of ORS/oral rehydration therapy and zinc treatment for diarrhea is emphasized.

### Objectives

After completing this session, participants will be able to—

- Recognize danger signs and symptoms of diarrhea
- Identify the aims of managing diarrhea
- Describe target practices for diarrhea based on IMCI guidelines
- Explain how to mix and use ORS packets for rehydration
- Explain the benefits and administration of zinc in the treatment of diarrhea

### *Teaching and Learning Methods*

- Lecture/discussion
- Small group discussion
- Brainstorming
- Exercise
- Role play/demonstration

### *Teaching Materials*

- Facilitators guide
- Dispensers training manual
- Flip chart
- Marker pens
- Patients' register
- Referral form
- ORS sachets
- Measuring cups/substitutes such as clean, empty cola or beer bottles
- Spoon for mixing the solution
- Clean water
- Zinc tablets

## Interactive Presentation

***Duration: 30 minutes***

**Ask participants:** "What is diarrhea?"
"What is the main aim of treating diarrhea?**"**

**Write:** all responses on a flip chart. Include—

- Loose and frequent stools
- Watery stools more than three times a day

**Explain**: There are three primary aims in managing diarrhea.

### *Prevent Dehydration and Replace Fluids*

Diarrhea causes dehydration, which is a severe lack of body fluids. If it is not treated, dehydration can result in death in young children. Any loss of body fluids can be dangerous; therefore, ADDO dispensers should be able to recognize the signs of dehydration.

Symptoms of dehydration—

- Sunken eyes
- Excessive thirst
- General weakness (lethargy)
- Irritability

Children with signs of dehydration should be referred to a health facility where they can get intravenous fluid replacement.

### *Maintain Personal Hygiene*

Several strategies are known to reduce the frequency of childhood diarrhea—

- Keep food and all food preparation areas clean
- Keep water clean and protected from fecal contamination
- Wash hands regularly with soap and water before eating and after using the toilet
- Proper disposal of feces

**Explain:** Diarrhea is almost always a result of fecal contamination. People become infected when material contaminated by feces enters their mouth—through drinking contaminated water or eating contaminated food, having dirty contaminated hands, or using dirty food preparation utensils, also demonstrated as six Fs in figure 1.

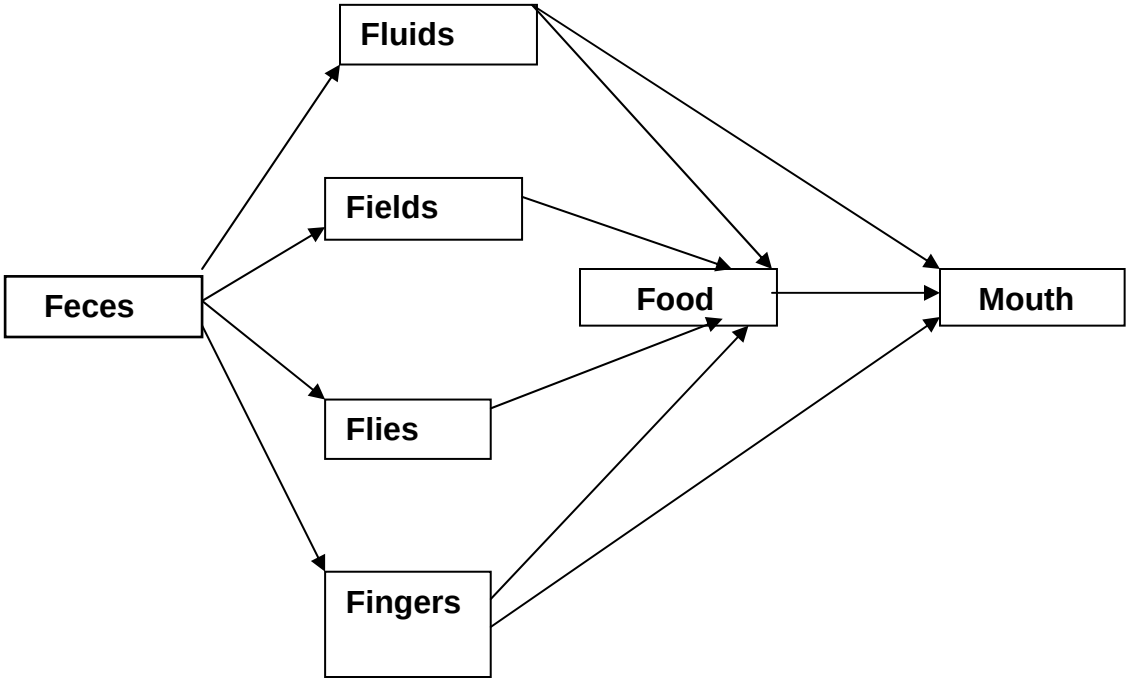



**Figure 1. Fecal-oral routes of disease transmission**

### *Maintain Nutrition*

Children with diarrhea need food/breast milk to keep them strong so they can recover more quickly. Diarrhea is a cause of nutritional loss in infants and young children. It is advised to give them as much to eat as usual; diarrhea is not a reason to change diet.

When a parent/caretaker enters your ADDO with a child that has diarrhea, follow the framework of practice that we outlined during the previous sessions. You will need to assess the signs and take a patient history so you can determine the severity of illness and provide appropriate advice concerning treatment, referral, or both.

## Assess the Severity of the Illness

***Duration: 10 minutes***

### *Diarrhea Severity*

**Explain**: The signs of severe illness are the same signs discussed in the previous session—

- Unable to drink or breastfeed
- Vomits everything
- Convulsions
- Lethargic or unconscious

In addition to the signs mentioned above, others symptoms specific to diarrhea are—

- Signs of dehydration (sunken eyes, excessive thirst, irritability)
- Dysentery (blood in stool)
- Persistent diarrhea (two weeks or longer)

ADDO dispensers should understand the urgency of getting immediate clinical care (such as intravenous fluids) at a referral site for any child with the above signs to save the child's life.

### *Diarrhea Duration and Frequency*

***Duration: 10 minutes***

**Explain:** The duration and frequency can indicate a severe case of diarrhea. A child should be referred to the health facility if the child—

- Is younger than one year of age and has had diarrhea for more than one day
- Is younger than 3 years of age and has had diarrhea for more than two days
- Is older than 3 years of age and has had diarrhea for more than three days
- Is experiencing more than five episodes of diarrhea per day

A child who has diarrhea for 14 days or more has **persistent diarrhea,** which requires special dietary and clinical care. Unless treated, the child will not grow properly and will be susceptible to disease and malnutrition.

### *Blood in Stool*

Blood in stool is an indication of bloody diarrhea/dysentery. Dysentery is a serious infection that can cause death in young children. If there is blood in the stool, immediately refer the child to a health facility. The child will need a prescription to receive the appropriate antibiotic. If the health facility is far, then the dispenser can sell the recommended first-line antibiotic (co-trimoxazole) in addition to ORS and zinc treatment.

## Treatment of Diarrhea

***Duration: 40 minutes***

### *Non-Bloody Diarrhea*

After it has been established that there are no danger signs, no dehydration, no signs of persistent diarrhea, and no blood in the stool, the recommended treatment is ORS, fluid replacement, and zinc treatment. These new recommendations developed by the United Nations Children's Fund and WHO incorporate zinc treatment because of recent research findings demonstrating the benefits of zinc treatment for diarrhea.

Antibiotics are ineffective in treating simple, non-bloody diarrhea. Most cases of non-bloody diarrhea are caused by a virus and therefore will not respond to an antibiotic. Treating non-bloody diarrhea with antibiotics is dangerous for public health and the community because when antibiotics are used inappropriately, drug-resistant strains of bacteria can develop and spread throughout the community. As a result, bacterial infections that had before been treatable with an antibiotic no longer will respond to this treatment.

All cases of non-bloody diarrhea are self-limiting and will stop by themselves. ORS are a special formulation designed to prevent dehydration. Although it would not stop the diarrhea, it helps the body replace the lost fluids and minerals. This process is essential for preventing dehydration.

### *How to Prepare ORS*

- Always wash your hands
- Use water that has been boiled, then cooled
- Measure one liter of water into a clean container (two empty beer bottles or three empty cola bottles)
- Add all the contents of a sachet of ORS powder into the water and use a clean spoon to dissolve
- Put the prepared solution into a clean container with a lid
- Use all the solution on the same day that it is prepared and discard any leftover solution

### *How Much ORS to Give?*

Feed after every loose bowel movement or about 10 minutes after vomiting.

- For a child under age two—between one-fourth and one-half cup
- For older children—between one-half and one cup

If ORS are not available, advise the parent/caretaker to give the child extra fluids, such as fruit juice, soup, porridge, coconut milk, or water. If the infant is still breastfeeding, explain to the mother that she should breastfeed more often and for longer.

In addition to ORS, zinc treatment is now recommended for all children with diarrhea. Zinc treatment is available in several forms, but in Tanzania only zinc dispersible tablets are currently available.

**Table 7. Guidelines for Use of Zinc Sulfate Tablets**

| Age group | Zinc sulfate (20 mg) |
|---|---|
| Below six months of age | ½ tablet daily for 10 days |
| From six months up to 5 years | 1 tablet daily for 10 days |

When possible, give the first tablet to the child. Demonstrate and explain to the parent/caretaker how to administer the zinc tablet as follows —

- Place the tablet in a spoon or small cup
- Add a small amount of breastmilk, ORS, or clean water
- Let the tablet dissolve (around 45 seconds)
- Give the entire spoonful or cupful to the child

These tablets can also be chewed if the child is old enough; however, the child may prefer the taste of the dissolved tablet. Give zinc treatment daily for 10 days even if diarrhea stops before the 10 days.

Benefits of giving zinc to a child with diarrhea—

- Shortens duration and severity of diarrhea
- Reduces the incidence of diarrhea episodes in the following two to three months
- Can help improve the sick child's appetite

Non-bloody diarrhea should be treated with—

- Extra fluids, ORS, or recommended home fluids
- Continued feeding (encourage ongoing breastfeeding when applicable)
- Zinc tablet

## Bloody Diarrhea/Dysentery

Bloody diarrhea/dysentery should be treated with—

- Extra fluids, ORS, or recommended home fluids
- Continued feeding (encourage ongoing breastfeeding when applicable)
- Zinc tablet
- The recommended antibiotic co-trimoxazole
- Referral if indicated

**Table 8. Guidelines for Co-trimoxazole Use**

| **Age** | **Cotrimoxazole®<br>(trimethoprim + sulfamethoxazole)<br>Give twice a day for 5 days** | | |
|---|---|---|---|
| | **Adult tablet**<br>(80 mg trimethoprim + 400 mg sulfamethoxazole | **Pediatric tablet**<br>**(**20 mg trimethoprim + 100 mg sulfamethoxazole | **Syrup**<br>(40mg trimethoprim + 200 mg sulfamethoxazole) |
| 1–2 months | 1/4 | 1 | 2.5ml<br>(1/2 teaspoon) |
| 2–12 months | 1/2 | 2 | 5.0ml<br>(1/2 teaspoon) |
| 13 months–5 years | 1 | 3 | 7.5ml<br>(1 ½ teaspoon) |

## Persistent Diarrhea

Persistent diarrhea should be treated with—

- Extra fluids, ORS, or recommended home fluids
- Continued feeding (encourage ongoing breastfeeding when applicable)
- Zinc tablet
- Referral to health facility for further investigation and treatment

### *Provide Advice on How to Give the Child Medication*

***Duration: 10 minutes***

- Explain to the parent/caretaker what the correct dose is and how to give the medicine
- Show the parent/caretaker how to measure a dose, especially for syrup form
- Explain the parent/caretaker how to administer the medicine (number of times per day and for how long) and then write instructions on the packet

- Explain the potential side effects of co-trimoxazole: hypersensitivity reactions, hematological effects (decrease of blood cells), and skin reactions and that if the side effects are bad, take the child to a health facility

- Explain that the medicine should be taken until the end of the course, even if the child gets better before medicine is finished

### *Recommend Giving Fluids, Continuing Feeding/Breastfeeding During Illness*

***Duration: 5 minutes***

**Explain:** Diarrhea causes loss of salt and fluids in the body. A child with diarrhea needs extra fluids to prevent dehydration**.** Feeding is essential to maintaining nutrition and helping the child fight the virus causing diarrhea or bacteria causing dysentery.

## Check/Inquire about Fever or Cough

***Duration: 5 minutes***

Children often have more than one illness and the parent/caretaker may not remember to mention all of the child's symptoms.

- If the child also has a fever, follow the procedures and treatments outlined in the session on fever.

- If the child also has cough, he or she should be treated following the procedures and treatments outlined in the session on ARI.

## Signs That Require Immediate Medical Care

***Duration: 10 minutes***

Explain to the parent/caretaker symptoms to watch for that would require immediate medical care. Explain that these signs can lead to death in young children. Be sure to mention the following signs—

- Danger signs (unable to drink or breastfeed, vomits everything, convulsions, lethargic, or unconscious)

- Fever

- No improvement or getting worse

- Persistent diarrhea

- Dysentery

Make sure that the parent/caregiver has understood before she/he leaves by asking him/her to repeat the instructions.

**Explain:** ADDO dispensers have an important role to play in advising parents/caretakers what these signs are that would require urgent medical care. If a parent/caretaker recognizes any of these signs, the child should immediately be taken to a health facility.

## Activity: Small Group Practice/Role Play

***Duration: 60 minutes***

## Instructions

- Divide the participants into groups of four. Each group will need to identify two people to participate in the role play and two people to observe and report on the interaction. For the second role play, participants switch roles and actors become observers and observers become actors. Everyone should have the opportunity to participate in the role play.

- Distribute the patients' register to the groups so they can fill in their assessment and decisions during the role play.

- During the role play, participants should look for the following—
  - If assessment was done as outlined in the framework of practice
  - Did the patient need referral? If yes, was it appropriately given?
  - If the recommended treatment was given and the dosage was correct
  - If the dispenser gave correct ORS preparation and zinc administration instruction
  - If advice on how to give medication was properly given
  - If advice on nutrition (feeding and drinking) was given

- At the end of this role play, each group should discuss what worked, what was missing, whether the correct advice was provided, what could have been done better

- Allow 15 minutes for each role play and discussion

- Facilitators should circulate among the small groups, giving advice as necessary

- After the activity is completed, bring the group together again to discuss reactions and comments from the role play

***Role Play 1.*** A parent/caretaker has come to your ADDO with a seven-month-old child who has had diarrhea for two days

***Role Play 2.*** A parent/caretaker has come to your ADDO with an 11-month-old child who has had bloody diarrhea for two days

***Role Play 3***. A parent/caretaker has brought a two-year-old child to your ADDO because the child has diarrhea for fifteen days

**Summarize the Session**

*Duration: 30 minutes*

Distribute the handout (annex 5) on management of diarrhea and summarize the chapter by highlighting the importance of following the framework of practice in the management of diarrhea

# ANNEXES

## ANNEX 1. FRAMEWORK OF PRACTICE AND DANGER SIGNS HANDOUT

### Framework of practice for treatment or referral when there is no prescription

- Evaluation
  - Assess the signs and symptoms
  - Take the customer history
    - Who is sick?
    - Since when?
    - Are there other symptoms?
    - What action/medicine has already been taken?

- Refer (if necessary)—
  - The first option is the pharmacist
  - If the pharmacist is not there, refer to a nearby health facility

- Management
  - Recommend medicine for purchase
  - Dispense the medicine
  - Counsel
    - On the dosing and duration of treatment
    - On what to do if there is failure to improve
    - Complementary advice

### Danger Signs: When to Refer

#### *General Danger Signs*

- The child is not able to drink or breast-feed
- The child vomits everything he/she eats or drinks
- The child has had convulsions
- The child is lethargic and unconscious
- The child shows signs of severe weight loss
- The child has already sought care and his/her condition has not improved

#### *Signs Specific to Diarrhea*

- Bloody diarrhea
- Persistent diarrhea (two weeks or more)
- Signs of dehydration (for example, sunken eyes, excessive thirst)

### *Signs Specific to ARI*

- Chest in-drawing
- Wheezing (for a child less than 12 months)

### *Signs Specific to Malaria*

- Fever continuing for two days after taking the malaria treatment

## ANNEX 2. ADVERSE DRUG REACTION FORM

### TANZANIA FOOD AND DRUGS AUTHORITY

**Patients' medicines complaints form**

**PATIENT PARTICULARS**

Patient name or serial number: _____

Sex:_____

Date of Birth:_____ Weight (Kg): _____

**DESCRIPTION ON DRUG EFFECTS**

☐ Headache ☐ Shock /anaphylaxis ☐ Rashes

☐ Diarrhea ☐ Nausea and vomiting ☐ Others

Description of effects_____

_____

Date effects started ……..

Date effects ended …….

Additional description, for example, patient history, pregnancy status, allergy, smoking, alcohol, etc. (Please attach laboratory results if available.)

_____

_____

**DESCRIPTION OF DRUGS USED BY THE PATIENT**

| Name of drugs used(please include the brand name if known) | Dose | | Route | Treatment date | | Batch and expiry date | Reasons for using the drug |
|---|---|---|---|---|---|---|---|
| | | | | Start | End | | |
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| **(Other drugs used including herbal drugs )** | | | | | | | |
| 1. | | | | | | | |
| 2. | | | | | | | |

**OUTCOME AND TREATMENT**

Did the effects disappear when the drug was stopped? Yes ☐ No ☐ Not known ☐

Did the effects reappear when the drug was used again? Yes ☐ No ☐ Not known ☐

Do you think the effects were serious? Yes ☐ No ☐ Not known ☐

If yes, give reasons for you to think effects were serious **(Tick which applicable)**

☐ The patient died ☐ The patient was hospitalized for a long period

☐ The effects was life-threatening ☐ It caused disability

☐ Caused child malformation ☐ Other (explain)_____

Treatment was provided? Yes ☐ No ☐ Not known ☐ If Yes, explain _____

Outcome of effects ☐ Did not recover ☐ Recovered ☐ Died (Date): ____/____/____

## ANNEX 3. MALARIA HANDOUT

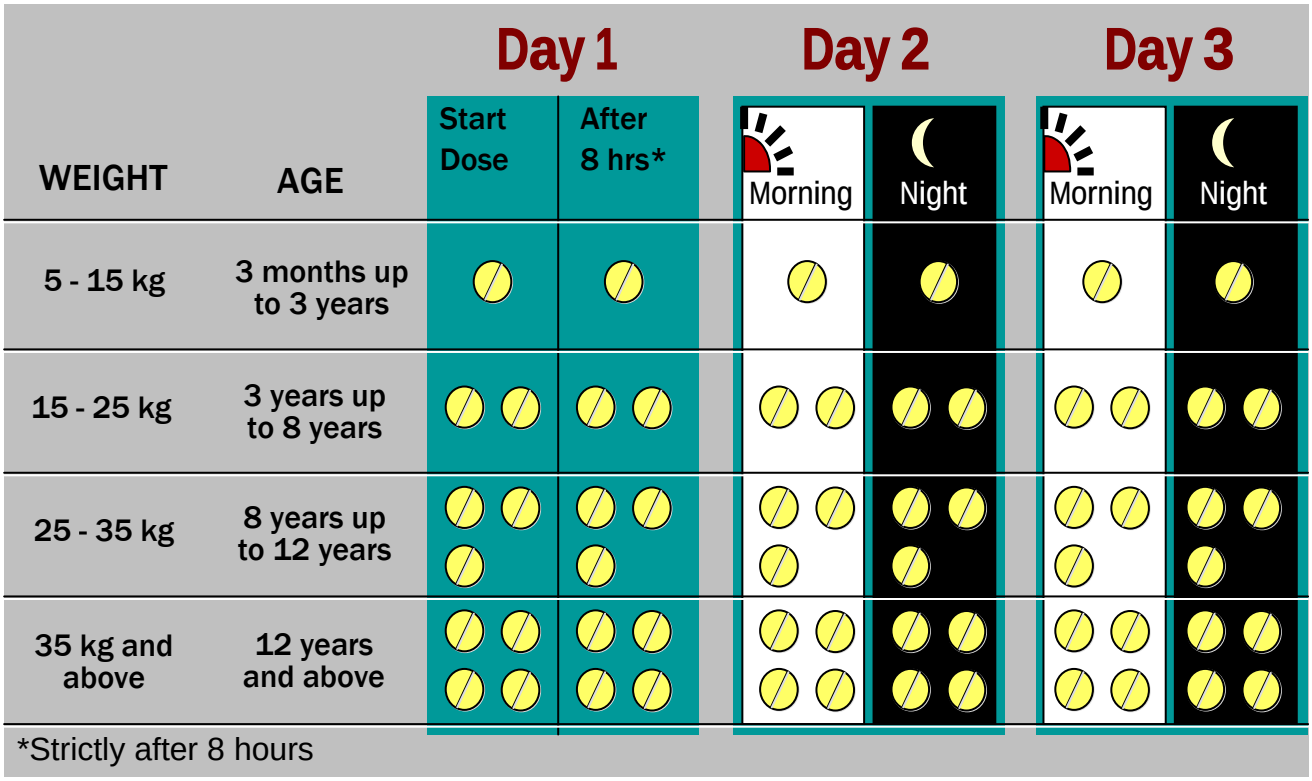
### Target Practices for Malaria

1. Assess the severity of the illness
2. Treat malaria with artemisinin-based combination therapy (ACT); currently artemether-lumefantrine (ALu)
3. Treat all fevers in under-five children as malaria
4. Provide advice on how to give the medication to the child
5. Recommend giving the child plenty of fluids
6. Recommend continuing feeding/breastfeeding during the child's illness
7. Check/inquire about cough, difficult/rapid breathing, and/or diarrhea
8. Explain signs to watch for that require immediate medical care
9. Recommend buying a long-lasting ITN and advise children and pregnant women to sleep inside the bed nets

**Correct Paracetamol Dosing for Children under Five Years of Age**

| Paracetamol | | | |
|---|---|---|---|
| **Age** | **Tablet (100 mg)** | **Tablet (500 mg)** | **Syrup 125mg/5ml** |
| **2 months up to 3 years** | 1 | 1/4 | 5ml (1 tsp) |
| **3 to 5 years** | 2 1/2 | 1/2 | 10 ml (2 tsp) |

**Correct Coartem (ALu) tab 20/120 Dosing for Children under Five Years of Age[1]**




**Example: Time schedule for first and second dose of ALu**

| *1st dose* | *2nd dose* | *1st dose* | *2nd dose* |
|---|---|---|---|
| 1:00 AM | 9:00 AM | 1:00 PM | 9:00 PM |
| 2:00 AM | 10:00 AM | 2:00 PM | 10:00 PM |
| 3:00 AM | 11:00 AM | 3:00 PM | 11:00 PM |
| 4:00 AM | 12:00 PM | 4:00 PM | 12:00 AM |
| 5:00 AM | 1:00 PM | 5:00 PM | 1:00 AM |
| 6:00 AM | 2:00 PM | 6:00 PM | 2:00 AM |
| 7:00 AM | 3:00 PM | 7:00 PM | 3:00 AM |
| 8:00 AM | 4:00 PM | 8:00 PM | 4:00 AM |
| 9:00 AM | 5:00 PM | 9:00 PM | 5:00 AM |
| 10:00 AM | 6:00 PM | 10:00 PM | 6:00 AM |
| 11:00 AM | 7:00 PM | 11:00 PM | 7:00 AM |
| 12:00 PM | 8:00 PM | 12:00 PM | 8:00 AM |

For practical purposes, a simpler dosage regimen is recommended to improve compliance: the first dose should be given as DOT by the dispenser; the second dose should exactly be given after eight hours; subsequent doses could be given twice daily (morning and evening) in the second and third day of treatment until completion of six doses (see illustration below).

[1] Adapted from the National Guidelines for Diagnosis and Treatment of Malaria (2005).

## ANNEX 4. ARI HANDOUT

### Target Practices for Acute Respiratory Infections

1. Assess the severity of the illness

2. Check/inquire about rapid breathing

3. Treatment for ARIs—
   - Non-pneumonia: honey and lemon, paracetamol, but no antibiotics
   - Pneumonia: co-trimoxazole (prescription or recommendation of a health worker )
   - Severe pneumonia: first dose of cotrimoxazole® and referral to nearby health facility

4. Provide instructions on how to give the medicine to the child

5. Recommend giving the child plenty of fluids

6. Recommend continuing feeding/breastfeeding during the child's illness

7. Check/inquire about fever and diarrhea

8. Explain signs to watch for that require immediate medical care

**Definition of Rapid Breathing**

| Age | Respiration Rate |
|---|---|
| **Less than 2 months** | 60 breaths or more per minute |
| **2–12 months** | 50 breaths or more per minute |
| **13 months–5 years** | 40 breaths or more per minute |

## Correct Dosing for Co-trimoxazole for Children Under 5 Years of Age

| | Co-trimoxazole (trimethoprime + sulfamethoxazole)<br>Give two times per day during five days | |
|---|---|---|
| **Age** | **Adult tablet**<br>**480 mg** | **Syrup**<br>**240 mg** |
| **1 to <2 months (3–4 kg)** | **1/4** | **2.5 ml (1/2 teaspoon)** |
| **2–12 months** | **1/2** | **5.0 ml (one teaspoon)** |
| **13 months–5 years** | **1** | **7.5 ml (one and one-half teaspoons)** |

## ANNEX 5. DIARRHEA HANDOUT

### Target Practices for Diarrhea

1. Assess the severity of the illness

2. Assess the duration and frequency of diarrhea

3. Ask about dehydration

4. Inquire about blood in the stool

5. Treatment of diarrhea
   - Non-Bloody: ORS and zinc treatment

   - Bloody: ORS, Zinc treatment plus co-trimoxazole (prescription or recommendation from a pharmacist)

   - Persistent diarrhea: ORS, zinc treatment and referral

6. Provide instructions on how to give the medication

7. Recommend continued feeding/breastfeeding during illness

8. Provide information on how good personal hygiene and cleanliness can help in preventing many cases of diarrhea

9. Check/inquire about fever, cough, and difficult/fast breathing

10. Explain the signs to watch for that require immediate medical care to the child's caregiver

## ANNEX 6. HOW TO PREPARE ORS

1. Always wash your hands before preparing the ORS
2. Use clean water (boiled then cooled)
3. Measure one liter of water into a clean container (two beer bottles or three cola bottles)
4. Add the contents of a sachet of ORS powder into the water and stir using a clean spoon
5. Put the prepared solution into a clean bottle or container with a lid
6. Use all the solution on the same day that it is prepared; any solution left over should be discarded, and then re-prepare the solution the next day

**Correct Dosing For Zinc Sulfate Tablets in Children**

| Age | Zinc sulfate (20 mg)<br>Give once a day during 10 days |
|---|---|
| **Less than 6 months** | **½ tablet** |
| **From 6 months to 5 years** | **1 tablet** |

**How to administer zinc tablets**:

1. Place the tablet in a spoon or small cup
2. Add a small amount of breast milk, milk, ORS, or clean water
3. Let the tablet dissolve (around 45 seconds)
4. Give the entire spoonful or cupful to the child

## Correct Dosing for Co-trimoxazole for Bloody Diarrhea in Children

| Age | Cotrimoxazole® (Trimethoprime + Sulfamethoxazole) Give two times per day during five days | |
|---|---|---|
| | **Adult tablet** 480 mg | **Syrup** 240 mg |
| 1 to <2 months (3–4 kg) | 1/4 | 2.5 ml (1/2 teaspoon) |
| 2–12 months (4–10 kg) | 1/2 | 5.0 ml (one teaspoon) |
| 13 months–5 years (10–19kg) | 1 | 7.5 ml (one and one-half teaspoons) |