

Training Manual for Private Pharmacy Staff Members in Managing Three Childhood Conditions: Diarrhea, Acute Respiratory Infection, and Malaria

May 2007



MSH

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This document was made possible in part through support provided by the U.S. Agency for International Development, under the terms of Cooperative Agreement Number HRN-A-00-00-00016-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

About RPM Plus

RPM Plus works in more than 20 developing and transitional countries to provide technical assistance to strengthen pharmaceutical and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

Recommended Citation

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Rational Pharmaceutical Management Plus. 2007. *Training Manual for Private Pharmacy Staff in Managing Three Childhood Conditions: Diarrhea, Acute Respiratory Infection, and Malaria*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

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COURSE OVERVIEW

Aim: To equip the pharmacy staff of private pharmacies to contribute to public child health

Goal: To improve the practices of pharmacy staff in private pharmacies with respect to the common childhood conditions: diarrhea, acute respiratory infections (ARIs), and malaria

Objectives: After the training course the pharmacy staff should be able to—

- Identify and distinguish between mild and severe signs and symptoms of acute diarrhea, ARIs, and malaria in children under five years of age
- Provide the appropriate recommendation for medicine purchase and use in acute diarrhea, ARIs, and malaria in children under five years of age
- Know when to refer acute diarrhea, fever, and ARIs in children under five years of age to the appropriate health facility
- Provide appropriate information and counseling to customers

Target audience for the training course: Pharmacy staff in private pharmacies

Number of participants per training course: 20 private pharmacy staff

Number of trainers per training course: 2 pharmacists

Criteria for trainers:

- ✓ Pharmacist (some should be in private practice)
- ✓ Technical credibility in the topic they are discussing with the participants
- ✓ Participation in the orientation of private pharmacists in Integrated Management of Childhood Illness (IMCI)
- ✓ Also recommended: Some trainers should come from each region where the training course is being held.

Preparing the trainers: Before conducting the course, trainers will undergo a training of trainers (ToT) that will provide a brief overview of the content and training methods to be used in the course.

Training Materials for the Course

- Flip chart and paper for presentations
- Binders or folders for course materials
- Marker pens
- IMCI video
- Packets of oral rehydration salts (ORS)
- 1 liter drinking water for every packet of ORS
- Clean containers for mixing 1 liter of solution
- Long spoons for mixing ORS solution
- Drinking cups for tasting ORS solution
- Certificates of Participation

Course Materials for Participants

- Course schedule
- Session notes for each session
- Slide handouts for all sessions
- Handouts (laminated) of—
 - Framework of practice
 - Target practices for diarrhea, ARIs, and malaria
 - Danger signs for diarrhea, ARIs, and malaria
- Course evaluation by trainees
- Evaluation of trainee knowledge (pre- and posttest)

TRAINING SCHEDULE

Day 1	Duration
Session 1. Orientation	15 minutes
Session 2. Introduction and Pretraining Assessment	45 minutes
Session 3. Role of Pharmacy Staff	30 minutes
<i>Break</i>	30 minutes
Session 4. Rational Use of Medicines	45 minutes
Session 5. Framework of Practice	45 minutes
<i>Lunch</i>	1 hour
Session 6. Diarrhea	2 hours
<i>Break</i>	30 minutes
Session 6. Diarrhea (continued)	1 hour 30 minutes
Total duration	8 hours 30 minutes
Day 2	Duration
Session 7. Acute Respiratory Infection	1 hour 30 minutes
<i>Break</i>	30 minutes
Session 7. Acute Respiratory Infection (continued)	30 minutes
Session 8. Malaria	1 hour
<i>Lunch</i>	1 hour
Session 8. Malaria (continued)	1 hour
Session 9. How to Be More Effective in Your Work	1 hour 30 minutes
<i>Break</i>	30 minutes
Session 10. Posttraining Assessment	30 minutes
Session 11. Closing	30 minutes
Total duration	8 hours 30 minutes

SESSION I. ORIENTATION

Purpose and content:

The purpose of this session is to welcome all participants to the training and provide an opportunity for them to get to know the facilitators and one another. A brief overview of the training schedule should be provided and general housekeeping items addressed.

Objectives:

- Become familiar with the other participants

Duration: 15 minutes

GETTING STARTED

Welcome the participants and introduce the facilitators. Explain the course schedule, times for coffee and meal breaks, and any other housekeeping items. Participants will receive binders at the beginning of the training in which to keep handouts; documents will be distributed during each session. Participants should fill out the information sheet.

ACTIVITY: INTRODUCTIONS

Purpose:

To introduce each participant

Procedure:

Go around the room and ask participants to introduce themselves with their name, where they are from, and something they enjoy doing in their free time. Also, have participants write their name on a name card that will be placed in front of them.

ACTIVITY: AGENDA

Purpose:

Orient the trainees on the schedule for the two days training

Procedure:

Present the agenda for the two days and make sure that all the participants understand and approve it (see slides 1.1 and 1.2).

ACTIVITY: RULES OF THE TRAINING

Purpose:

Manage the behavior of participants during the training

Procedure:

Facilitate a discussion on the rules of the training and the possible sanctions that should be applied. Write the rules and the sanctions selected by the group on the flip chart.

SESSION 2. INTRODUCTION AND CONTEXT

Purpose and content:

The purpose of this session is to give an overview of the training and explain why the course focuses on the three childhood conditions of diarrhea, acute respiratory infection (ARI), and malaria in children under five years of age. Participants will also complete a pretraining assessment to provide a baseline measure of knowledge for the course evaluation.

Objectives (see slide 2.1):

By the end of this session the participants should be able to—

- Describe the purpose of the training
- Explain why the course focuses on diarrhea, acute respiratory infection, and malaria
- Explain the Integrated Management of Childhood Illness (IMCI) strategy

Duration: 45 minutes

Prepared ahead of time:

- ✓ 1 copy of pretest for each participant
- ✓ 1 copy of the slides with space for taking notes for each participant

GETTING STARTED

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

Explain the purpose of the training (see slide 2.2): Private providers play a major role in treating sick children in Cambodia, and they are often cited as the first port of call for treatment when people are sick. This training for private pharmacy staff supports the efforts of the government and Ministry of Health (MoH) by contributing to saving children's lives. It also benefits providers by helping them provide high-quality and improved services to their community. Participants will receive a Certificate of Participation to display in their pharmacy as well as materials to be used for reference in their pharmacies.

Why focus on diarrhea, malaria, and ARI (see slide 2.3)? Malaria, diarrhea, and pneumonia are major causes of illnesses and deaths in school-age children in Cambodia. Children under the age of five years are the focus of this training because they are particularly at risk for these conditions.

Introduce Integrated Management of Childhood Illness (see slide 2.4): IMCI is a strategy implemented by the MoH to improve child health as a way of reducing child mortality. It involves seeing the sick child (from two months to five years of age) as a whole and not just

categorizing the sickness as one diagnosis. It also includes preventive measures such as vaccination and nutritional advice. Implementation of IMCI has three components (see **slide 2.5**)—

1. Training health workers
2. Strengthening health systems
3. Improving family and community practices

The use of medicines is an essential part of all these components (see **slide 2.6**).

IMCI was first introduced in Cambodia in 2001 and has been gradually extended across the country since then. Currently, two-thirds of nurses in health centers are trained in IMCI practices. Preliminary results show that IMCI has been effective in improving the treatment of sick children. However, this improvement is limited to the public sector, and as we know, many caregivers of sick children obtain medicines from outside the public sector, especially in private pharmacies.

The necessity of collaborating with the private sector (see slide 2.7): Realizing that the community seeks much of its care from private providers, the government through the MoH has decided that collaboration of the public sector with private providers is important to promote the IMCI strategy. This training provides the unique opportunity to orient private providers in IMCI so they can provide the most effective care for their patients, especially the children within their communities.

ASSESSMENT: PRETEST (see slide 2.8)

Explain to the participants—to minimize their nervousness—that the purpose of this exercise is to assess their level of knowledge to better guide the training.

Procedure:

1. Assign each participant a number to be written on the bottom right-hand corner of the assessment form. This number will be assigned to the same participant in the posttraining assessment. Individuals will not be identified. **Ask participants to remember their number** because they will need it later in the course.
2. Distribute and explain the assessment form to all participants and ask if they have any questions.
3. Allow 20 minutes for participants to complete the form.

Activity: Objectives

Procedure (see slide 2.9):

Present the objectives of the training using the slides and write them on a flip chart to stick on the wall during the training. Respond to any questions.

After the training course, the pharmacy staff should be able to—

- Identify signs and symptoms of acute diarrhea, ARIs, and malaria in children under five years of age
- Provide the appropriate recommendation for medicine purchase and use in acute diarrhea, ARIs, and malaria in children under five years of age
- Know when to refer acute diarrhea, fever, and ARIs in children under five years of age to the appropriate health facility
- Provide appropriate information and counseling to customers

Distribute the session notes for the participants to insert into their binders.

SESSION 3. ROLE OF PHARMACY STAFF

Purpose and content:

Pharmacy staff members play a crucial role in improving and sustaining the health status of the community. The purpose of this session is to discuss the role of the pharmacy staff and recognize the knowledge and skills required to provide high-quality services to the community.

Objectives (see slide 3.1):

After completing this session, participants will be able to—

- Describe the role of the pharmacy staff
- Give examples of the knowledge and skills required to successfully perform the duties of the position

Duration: 30 minutes

Prepared ahead of time:

- ✓ 1 copy of the slides with space for taking notes for each participant

GETTING STARTED

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

Presentation: Importance of Pharmacy Staff (see slide 3.2)

Explain: Pharmacy staff members play a crucial role in improving and sustaining the health status of Cambodian men, women, and children. For many people, their community pharmacy is their first choice when seeking health advice, services, and products. Sometimes it is the only choice. Thus, over the years, the role of the vendors of medicines has grown from “just selling medicines” to that of community health adviser and counselor.

Explain: Most important, pharmacy staff members can become the link for their customers to other health services. With the expansion of this role, the pharmacy staff’s responsibility toward their customers can also grow. This growth means providing effective services with high-quality products and affordable prices, thus gaining the respect of the customers and generating more demand for the services.

INTERACTIVE PRESENTATION: ROLES, KNOWLEDGE, AND SKILLS

The Role of Pharmacy Sales Staff

Explain: The pharmacy sales staff must have certain skills and knowledge.

Ask participants: “What is the role of the private pharmacy sales staff?”

Write all responses on the board or on flip-chart paper. Discuss any points missing from participants’ responses. Key answers are as follows (**see slide 3.3**)—

- Communicate with customers
- Screen/assess customers
- Dispense appropriate over-the-counter medicines
- Dispense certain medicines on prescription
- Offer advice for referral

Ask participants: “What knowledge is needed to be a good pharmacy staff member?”

Write all responses on the board or on flip-chart paper. Discuss any points missing from participants’ responses. Key answers are as follows (**see slide 3.4**) —

Knowledge of—

- Common illnesses
- Side effects and contraindications of medicines
- Information on products, availability, and prices

Ask participants: “What skills are needed to be a good pharmacy staff member?”

Write all responses on the board or on flip-chart paper. Discuss any points missing from participant’ responses. Key answers are as follows (**see slide 3.5**)—

- Read prescriptions
- Communicate well
- Understand customers’ needs
- Provide customers with simple advice (on the illness and treatment) and referrals
- Provide good-quality health services, especially promoting rational use of medicines

Distribute the session notes for the participants to insert into their binders.

SESSION 4. RATIONAL USE OF MEDICINES

Purpose and content:

Inappropriate use of medicines is an important health problem. This session explores commonly encountered problems related to use of medicines.

Objectives (see slides 4.1 and 4.2):

After completing this session, participants will be able to—

- Define rational use
- Name the four basic elements of medicine use in a private pharmacy: appropriate symptom recognition, appropriate sales recommendation, correct dispensing, and provision of information to the patient
- Identify problems commonly encountered in the use of pharmaceuticals
- Describe the effect of the inappropriate use of medicines
- Identify the causes of inappropriate medicine use

Duration: 45 minutes

Prepared ahead of time:

- ✓ 1 copy of the slides with space for taking notes for each participant

GETTING STARTED

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

Presentation: Rational Use of Medicines

Define: Rational use of medicines (see slide 4.3)

The rational use of medicines requires that patients receive medicines appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and the community.

—World Health Organization, 1988

Explain (see slide 4.4): The processes involved in the rational use of medicines form a cycle that involves the doctor or prescriber, the dispenser, and the client or customer. To ensure the rational use of medicines in a pharmacy, we need to ensure the following four elements (see slide 4.5)—

- Appropriate **recognition** of reported symptoms and signs that distinguish between trivial and serious ailments (either by the prescriber or at the pharmacy counter if the patient comes in with no prescription)
- Appropriate sales **recommendations** or referral to an appropriate health care provider
- Accurate filling of the prescription or recommendation (**dispensing**), consulting the prescriber if prescriptions are illegible
- Provision of appropriate **information** to the customer on how to prepare, store, and take or give (in the case of a child) the medicines purchased

Explain: All these actions are taken at the point of contact with the customer in the pharmacy, during the sale and dispensing of the medications. Considering the cost aspect of the medicine is also important. If an expensive medicine is recommended, the customer may not be able to afford it or enough of it to complete a course of treatment, and therefore it is possible that the patient will not get better. The customer may not come back to the pharmacy because the medicine he or she got there did not work. It is therefore important to recommend the most cost-effective medicine—that is, the most economical one that will work.

Another important point in rational use of medicines is that the medicine be administered appropriately to the patient (known as patient adherence), so that it has the desired effect.

INTERACTIVE PRESENTATION: APPROPRIATE USE OF MEDICINES

I. Types of Medicine Use Problems

Ask participants: “What are examples of irrational use of medicines?”

Encourage participants to explain their answers and provide examples for clarification. List the four elements of medicine use (recognition, recommendation, dispensing, and information) on the board or on flip-chart paper. Leave enough space below each to write all responses. Key answers are as follows (**see slide 4.6**)—

- **Recognition of symptoms**
 - Incorrect interpretation of history, signs, and symptoms
- **Recommendation of medicines for purchase**
 - *Extravagant prescribing:* Expensive medicines are sold when less expensive equivalents are available. Branded medicines are sold instead of the generic equivalent.
 - *Incorrect prescribing:* The wrong medicines are selected for the patient’s condition or the condition is incorrectly identified. For example, antibiotics are sold for conditions not responsive to antibiotics such as nonbloody diarrhea or non-pneumonia upper respiratory infections.

- *Multiple prescribing*: Many medicines are used when fewer would have the same effect.
- *Underprescribing*: Needed medications are not prescribed, or the dosage is inadequate, or incomplete courses are sold.
- **Dispensing (see slide 4.7)**
 - Incorrect interpretation of the prescription
 - Retrieval of wrong ingredients
 - Inaccurate counting
 - Mistakes in delivery of medicines to patients, such as wrong medicine, wrong amount of medicine
 - Unsanitary procedures
 - Poor identification and labeling
- **Information given to customer (see slide 4.8)**
 - Poor labeling
 - Inadequate instructions
 - Poor understanding of instructions
 - Treatments or instructions that do not consider the customer's beliefs, environment, or culture

2. Adverse Effect of Irrational Use of Medicines

Ask participants: “Why is rational use of medicines important? What are the potential adverse effects of not using medicines rationally?”

Write all responses on the board or flip-chart paper. Key answers are as follows (see slide 4.9)—

- **Reduced quality of therapy**
 - Patient could stay sick
 - Patient could die from the illness
- **Risk of unwanted effects**
 - Side effects
 - Bacterial resistance
- **Waste of resources**
 - Reduced availability
 - Increased cost to the patient
- **Psychosocial impacts**
 - Patients can come to rely on medicines to treat everything, which in turn increases the demand

Explain that bacterial resistance can develop when antibiotics or antimalarials are not taken in the correct dose for the appropriate length of time or if they are used when they are not needed. Resistance means that the bacteria or parasites become used to the medicine and change so that the medicine no longer works against them.

3. Factors That Can Cause Irrational Use of Medicines in the Pharmacy

We have discussed examples of irrational use of medicines and their effect, but what causes irrational use of medicines?

Ask participants: “What *causes* irrational use of medicines in a pharmacy?”

Write all responses on the board or flip-chart paper. Key answers are as follows (see slide 4.9)—

- Lack of knowledge
- Inadequate training
- Lack of continuing education
- Lack of awareness of national IMCI guidelines
- Inadequate supervision by pharmacist
- Lack of information or misinformation
- Pressure from customers
- Poor communication
- Customers’ misunderstanding of medicines and their use
- Conflict between cultural values and therapy
- Lack of customer trust

Summary: We have talked about what rational use of medicines is and listed some key commonplace examples of irrational use of medicines. As we have seen, doing all we can to avoid irrational use of medicines is important because irrational medicine use can reduce the quality of therapy and can cause unwanted effects, such as adverse reactions and the development of bacterial resistance. The aim of this training is to provide you with the knowledge and information to be able to use medicines rationally for some common childhood illnesses, but as we have discussed, knowledge and information are not the only factors that can influence the way medicines are used. You have a big role to play also in educating the customers that what you recommend really is the best medicine for their child, despite their experience or cultural beliefs, and to promote patient adherence by providing them with the necessary information in a way they can understand.

Distribute the session notes for the participants to insert into their binders.

SESSION 5. FRAMEWORK OF PRACTICE FOR TREATMENT OR REFERRAL IN THE ABSENCE OF A PRESCRIPTION

Purpose and content:

Pharmacies in the community are often the first stop for people with illness, and pharmacy staff are constantly required to assess the signs and symptoms of ill health presented to them. As a result, pharmaceutical vendors need sufficient background knowledge to determine a rational course of action.

The purpose of this session is to outline the steps necessary to take in the screening process to determine a rational course of action. These steps are used in following sessions when we discuss the specific childhood conditions of diarrhea, acute respiratory infections, and malaria.

Objectives (see slide 5.1):

After completing this session, participants will be able to—

- Indicate the elements of the framework of practice
- Recall the necessary steps involved in making a rational provisional diagnosis
- List the criteria for referral

Duration: 45 minutes

Prepared ahead of time:

- ✓ 1 copy of the slides with space for taking notes for each participant

GETTING STARTED

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

Presentation: Overview of Framework of Practice (see slide 5.2)

Explain: Pharmacies in the community are often the first stop for people with illness, and pharmacy staff members are constantly required to assess the signs and symptoms of ill health presented to them. In this way, they perform an essential health screening process, in addition to dispensing medicines from a prescription.

In general, the consultation falls into one of the following categories—

- A customer requests a specific product.
- The pharmacy staff is asked to confirm what a customer thinks is wrong (self-diagnosis).
- The customer explains his or her signs and symptoms and asks for treatment.

Explain (see slide 5.3): The outcomes of such encounters are individual and varied but include the possibility of giving advice, treatment, and referral. Because it is not in a customer's interest to delay referral of a potentially serious condition, the pharmacy staff needs to be able to carry out this preliminary screening process both quickly and accurately.

Explain: Pharmacy staff members 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 customer's interest to treat the condition
- Recommend referral to another health professional

General Framework for Treatment or Referral without a Prescription (see slide 5.4)

Explain: This framework ensures a systematic approach to care in determining treatment or referral, where a customer has no prescription. The screening process involves three main steps and several substeps, which can be outlined as follows—

1. Evaluation
 - Assessing signs and symptoms
 - Taking a customer history
 - Who is sick?
 - Since when?
 - What are the other symptoms?
 - What actions/medicines have already been taken?
2. Referral (if appropriate): The first point of referral for pharmacy staff is the closest health facility.
3. Management
 - Recommending medicine for purchase
 - Dispensing the medicine
 - Counseling
 - Dosage and duration
 - Failure to improve
 - Complementary advice

Summary (see slide 5.5): Observation and careful systematic history taking can provide valuable indicators toward helping us recognize the signs and symptoms and recommending the appropriate action. This course will provide you with the knowledge you need to do this for the three common childhood conditions.

INTERACTIVE PRESENTATION: ELEMENTS OF THE FRAMEWORK

I. Evaluation

- **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*? Why distinguish between the two?"

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? (*Coughing is a sign.*)
- Is vomiting a sign or a symptom? (*Vomiting is a sign.*)
- Is abdominal pain a sign or a symptom? (*Abdominal pain is a symptom.*)
- Is a headache a sign or a symptom? (*Headache is a symptom.*)

Provide clear definitions of signs and symptoms (see slide 5.6).

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

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

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

- **Taking a patient history (see slide 5.7)**

Explain that history taking is important because the patient's history may alter the recommended action. For example, if a patient has already taken the medicine you were going to recommend, then a different medicine or referral would be necessary. When a customer enters your pharmacy, ask simple questions to gain some information. It is important to use the answers to the questions and to assume nothing. Many approaches exist for taking a history, but a simple protocol to follow in a community pharmacy is to ask the following questions—

- ✓ Who is the medicine for? If for a child, ask for his or 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 the medicines already taken?

Explain: Use common sense in getting a history. If you have prior information, for example, from a previous conversation, you may not need to ask about it again.

Provide examples of cases when the answers to these questions made a difference in what treatment was sold.

Example: A 35-year-old man comes into the pharmacy asking for medicine for diarrhea. Without asking who the medication was for, the pharmacy staff would never have known that in fact the sick person is the man's 2-year-old son. The choice and dose of a medicine is affected by the age of the patient.

Explain: As for assessment of signs and symptoms, later in the course we will outline the specific questions that should be asked relating to each of the diseases in children that we are considering.

2. Referral

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 or her to a health facility.

Ask participants: "In what context would you refer a patient to a health facility?"

Encourage participants to offer criteria and provide examples from their own experience when they made a decision to refer a customer to a health facility. Write all responses on flip-chart paper or the board. Be sure to include any criteria missed by the participants.

Basic criteria for referral are as follows (**see slide 5.8**)—

- If at any stage you identify a sign or symptom that raises the possibility of serious disease (as will be outlined for the specific conditions in the next sessions)
- If you consider you are not competent to make a decision
- If you think further investigation is in the customer or patient's interest
- You are of the opinion that services or treatment available from another health facility is superior to what you can offer

3. Management (see slide 5.9)

Explain: Effectively managing a condition involves much more than simply selling a medicine. It requires selling the appropriate medicine for the condition and for the patient. A patient must also use the medication correctly and be able to realize when or whether to return for an

additional or alternative treatment. In selling the medication, private pharmacy staff can help their customers understand how a medication should be taken to be most effective. If patients succeed in taking medication correctly, the medication will be more effective and they will, in turn, be more satisfied.

- **Recommending medicine for purchase (see slide 5.10)**

Explain: The choice of medicine will depend on the evaluation of the patient, and recommendations should always comply with accepted national guidelines. The Cambodian national treatment guidelines are discussed in detail in the sessions relating to the three specific disease states. In recommending medicines for purchase, it is important to recommend the appropriate formulation for the patient and also, where possible, to promote the sale of generics. Generics are medicines of comparable quality to their branded equivalents and are less costly to the customer, which means they will be happier and also will more likely be able to afford a whole treatment course. A significant profit margin is applied to generics; so if they are sold in sufficient quantities, they are still beneficial to the business.

A 2002 survey found that on average customers paid six times what a standard recommended treatment should be for cases of cough/cold, diarrhea, and malaria.¹

- **Dispensing (see slide 5.11)**

Explain: One major difference between supplying 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 pharmacy staff is recommending a product or dispensing from a prescription.

Explain: It is therefore critically important that the correct medicine be selected and that it be labeled accurately and clearly with the name of patient, the medicine name, dose, frequency, and duration of treatment, particularly if the printed instructions are not clear or if a change is made from the manufacturer's statement on the label.

- **Counseling**

Explain: Just labeling a medicine is not sufficient. The customer must also be given these instructions orally, both for reinforcement of the message and in case the customer cannot read the label.

Ask participants: "What kind of information should you provide to customers about the medication you are selling to them?"

Write all responses on flip-chart paper. Be sure to discuss any points missing from participants' responses (see slide 5.12).

¹R. Kosler. 2002. *Cambodian Red Cross Survey*. Siem Reap, Cambodia.

Basic information that should be given to customers—

- ✓ How much is to be taken
- ✓ How it is to be taken—for example, chewed or swallowed
- ✓ How often it should be taken
- ✓ For how long it should be taken
- ✓ When to take in relation to food, whether to take with water
- ✓ Possible adverse effects and what action to take if they occur
- ✓ Interactions with other substances (alcohol, food) and other medications
- ✓ When dispensing oral rehydration salts (ORS) for preparation at home, give the proper instructions for preparation
- ✓ Storage requirements—for example, with regard to heat, light, and moisture. The last two conditions may not be a problem if the tablets are sealed in foil, but temperature should always be considered. Storing in a cool place, if possible, should always be advised.

Provide a few counseling tips to help pharmacy staff communicate these messages effectively (see slide 5.13).

Counseling tips—

- ✓ Speak clearly and slowly.
- ✓ Ask and listen carefully.
- ✓ After giving the information to the customer, ask the customer to repeat it back to reinforce understanding and to make sure that he or she understands what to do.
- ✓ Be patient with the customer.
- ✓ Remember, satisfied customers come back.

Components of counseling (see slide 5.14)

Counseling should not only include information about how to take the medicine but also additional information.

Information to increase adherence (see slide 5.15)

Explain: Compliance with therapy is a measure of the extent to which a customer follows instructions on the use of a medicine. The dispenser should give these instructions. *The better the instructions are, the higher the compliance.* It is therefore important that the customer understands the reason for the choice of medication, the importance of taking the medication as directed, and the importance of completing the whole course unless serious adverse effects occur. At a minimum, information should be provided on how much medicine to take, at what frequency, and for how long. If the customer has come with a prescription from a health care

worker, the customer may have already received some of this information, but the pharmacy staff is well placed to repeat the information and ensure understanding.

Information on nonresponse or worsening signs and symptoms (see slide 5.16)

Explain: If the patient's condition does not respond to the recommended treatment or signs and symptoms worsen, it is possible that the evaluation may have been incorrect or that the disease is resistant to the medication. In this case, the customer should be advised that the patient go to a clinic or hospital, whichever is appropriate and available. Should the customer come back to the pharmacy, this same advice should be given and arrangements made, if necessary.

Complementary advice (see slide 5.17)

- In all cases emphasize the need to continue feeding the child, especially when breast-feeding an infant.
- Where appropriate, additional advice relating to the condition should be given, for example about rehydration, nutrition, and hygiene (this will be discussed in the following sessions).

Summary (see slides 5.18 and 5.19)

Pharmacies in the community are often the first stop for people with illness, and pharmacists or their pharmacy staff are constantly required to assess the signs and symptoms of ill health presented to them. As a result, pharmacy staff need sufficient background knowledge to determine a rational course of action in managing cases of sick children or, indeed, other customers. Following the framework of practice for treatment or referral in the absence of a prescription ensures a systematic approach in determining a rational course of action.

1. Evaluation

- Assessing signs and symptoms
- Taking a patient history
 - Who is sick?
 - Since when?
 - What are the other symptoms?
 - What actions and medicines have already been taken?

2. Referral (if appropriate): The first point of referral for pharmacy staff is the closest health facility.

3. Management

- Recommending medicine for purchase
- Dispensing
- Counseling
 - Dosage and duration
 - Failure to improve
 - Complementary advice

These steps should be followed in all cases to provide the best care and service to your customers. As we discuss the childhood conditions of diarrhea, acute respiratory infections, and malaria in the following sessions, we will identify target practices specific to each condition that need to be addressed as part of the management of the condition, as outlined in the framework of practice.

Distribute the session notes for the participants to insert into their binders and **distribute the laminated sheets of the framework of practice.**

SESSION 6. DIARRHEA

Purpose and content:

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 oral rehydration salts (ORS) therapy for nonbloody diarrhea is emphasized.

Objectives (see slide 6.1):

After completing this session, participants will be able to—

- Recognize the 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

Duration: 3 hours 30 minutes

Session plan:

- Determine signs and symptoms
- Overview of aims of managing diarrhea in children
- Review and discussion of specific target practices
- ORS preparation
- Small group practice/role play

Materials:

- ✓ One packet of oral rehydration salts for every four–five participants
- ✓ Drinking water for every packet of ORS
- ✓ Clean containers for mixing 1 liter of solution
- ✓ Long spoon for mixing the solution
- ✓ Enough cups for all participants to taste the solution

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

INTERACTIVE PRESENTATION: CONDITION AND AIMS OF MANAGEMENT

Ask participants: “What are the signs and symptoms of diarrhea?”

Signs and symptoms of diarrhea (see slide 6.2)

- Loose and frequent stools

Ask participants: “What are three primary aims in managing diarrhea?” (See slide 6.3)

Aim 1: Prevent dehydration and replace fluids

Ask participants: “What is dehydration and why it is important to find out if a child is dehydrated?”

Listen to the responses

Explain that diarrhea causes dehydration, which is a severe lack of body fluids. If it is not treated, dehydration can lead to death in young children. Up to 70 percent of a child’s weight is water, so any loss can be dangerous.

Ask participants: “If a sick child is brought to you, could you recognize the signs of dehydration? What are the signs of dehydration?”

Listen to the responses and then present:

Signs of dehydration (see slide 6.4)

- Sunken eyes
- Excessive thirst
- General weakness

Aim 2: Maintain nutrition

Ask participants: “Why is it important to maintain nutrition?”

Listen to the responses

Explain (see slide 6.5): Children with diarrhea need food/breast milk to keep them strong so that 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; the diarrhea is not a reason to change diet.

Aim 3: Maintain personal hygiene

Ask participants: “Give some ways of preventing diarrhea in children.”

Listen to the responses

Explain (see slide 6.6): Several simple strategies are known to reduce the number and frequency of cases of childhood diarrhea. It is good practice to keep all food preparation areas clean and keep them protected from possible fecal contamination. Regular hand washing with soap, before eating, after using the toilet, and after changing a child who has defecated limits the transmission of illness to others.

When to refer and follow up?

Ask participants: “What are the situations where you recommend the patient to go to health facility?”

Listen to the responses

Explain (slide 6.7): It is **URGENT** to refer to the most appropriate health facility or health care provider when the condition is serious—

- in case of frequent and loose stools (diarrhea)
- in case of dehydration
- in case of frequent vomiting
- in case of cough with fast breathing (pneumonia)
- in case of inactive and not alert child

When you see the signs and symptoms mentioned above, the condition is serious. The appropriate medicine should be recommended on prescription by a health care provider. Then the pharmacy staff will sell the medicine according to the prescription and will counsel and advise on hygiene, nutrition, and follow-up.

Follow-up is necessary when the condition does not improve after three days. **Therefore, referral to an appropriate health care provider is urgent.**

INTERACTIVE PRESENTATION: TARGET PRACTICES

Introduce the section (see slide 6.8): When a customer enters your pharmacy, follow the framework of practice that we outlined in the previous session. 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 or referral. In this section, we review specific target practices for cases of childhood diarrhea that will need to be incorporated into the management element of the framework.

I. Assess the severity of the illness

Ask participants: “What questions would you ask to determine if a child is severely ill?”

Make sure the following six signs of severe illness (general danger signs) are mentioned (see slide 6.9)—

- ✓ The child is not able to drink or breast-feed.
- ✓ The child vomits everything he or she eats or drinks.
- ✓ The child has high and persistent fever.
- ✓ The child is not active or responding to stimulation, such as calling his or her name.
- ✓ The child has diarrhea and dehydration.
- ✓ The child has a cough with fast breathing.

Ask participants: “Have you seen cases with any of the above signs?”
“What did you do?”
“What was the outcome?”

Discuss with participants the urgency of getting immediate clinical care at a referral site for any child with the preceding general danger signs (the immediate need for intensive medical care, such as intravenous fluids, to save the child’s life).

2. Assess duration and frequency of diarrhea

Ask participants: “Why is it important to inquire about the duration and frequency of diarrhea?”

Explain (see slide 6.10): The duration and frequency can indicate a severe case of diarrhea.

The child should be referred to a health facility if—

- ✓ < 1 year and diarrhea for > 1 day
- ✓ < 3 years and diarrhea for > 2 days
- ✓ > 3 years and diarrhea for > 3 days

The child should be referred to a health facility if—

- ✓ Experiencing more than five episodes of diarrhea per day

A child who has diarrhea for more than two weeks has chronic diarrhea, which requires special dietary and clinical care. Unless treated, the child will not grow properly and will be susceptible to disease and malnutrition.

3. Ask about (or check for, if child is present) dehydration. If dehydration is suspected, refer and give ORS/fluids.

Emphasize: Dehydration is very dangerous. If you suspect a child is dehydrated, give ORS (which we will discuss later) and/or fluids and advise the child be taken to a health facility immediately.

Ask participants: “Let’s review. What are the signs of dehydration?”

Signs of dehydration (see slide 6.11)

- Sunken eyes
- Excessive thirst
- General weakness

4. Inquire about blood in stool

Ask participants: “Why are we concerned about blood in the stool?”

Explain (see slide 6.12): Blood in the stool is an indication of dysentery. Dysentery is a serious infection that can cause death in young children. If blood is present in the stool, refer to your pharmacist or recommend that the caretaker take the child to see a health care provider. The child will need the appropriate antibiotic as well as ORS.

Ask participants: “To review, what are the signs that a child with diarrhea needs urgent referral to a health facility and medical care?”

Make sure the following are mentioned (see slide 6.13)—

- ✓ General danger signs (unable to drink or breast-feed, vomits everything, high and persistent fever, lethargic and nonresponsive, diarrhea and dehydration, cough and fast breathing)
- ✓ Chronic diarrhea (longer than two weeks)
- ✓ Frequency of stools more than five per day
- ✓ Signs of dehydration (for example, sunken eyes, excessive thirst)
- ✓ Suspected dysentery (blood in stool)

5. Treatment for diarrhea

Before offering advice on treatment, you should check whether the child has taken any medicines already.

Nonbloody Diarrhea

Ask participants: “After we have established there are no danger signs, no signs of chronic diarrhea, no dehydration, and no blood in the stool, what is appropriate treatment for simple diarrhea?”

Recommended treatment (see slide 6.14): ORS and fluid replacement (increased liquids). The IMCI guideline recommends adding zinc tablets. In the near future, ORASEL kit from Population Services International (PSI) will be available in Cambodian pharmacies.

Discuss the inappropriate use of antibiotics for nonbloody diarrhea. Emphasize that antibiotics are not recommended for treatment when no blood is present in the stool.

Explain that antibiotics are not effective in treating nonbloody diarrhea. Most cases of nonbloody diarrhea are caused by a virus and therefore will not respond to an antibiotic.

Explain why selling antibiotics for nonbloody diarrhea is a problem for the individual and the community. Antibiotics are not effective in treating nonbloody diarrhea, so the individual's condition will not improve as a result of taking this medication. This practice is also dangerous for public health and the community because when antibiotics are used inappropriately, resistant strains of bacteria 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.

Discuss also the inappropriate use of antidiarrheals for the under-fives or neonates. These medicines rarely help treatment of diarrhea and are dangerous in children.

Explain that antidiarrheals (such as codeine, opium dye, diphenoxylate, and loperamide) are dangerous medicines that slow down the mobility of the intestine and can cause an intestinal paralysis or make the child abnormally sleepy. This outcome can be fatal, especially in the neonate.

Explain why selling other antidiarrheals such as kaolin, actapulgite, or charcoal is useless. They have no effect on the diarrhea and their use may delay ORS treatment.

Ask participants: "Have you seen these ORS packets before?"

Show an ORS packet available in local pharmacies and health facilities (see slide 6.15).

Explain that all cases of nonbloody diarrhea are self-limiting and will stop by themselves. ORS is a special formulation designed to prevent dehydration. Although it will not stop the diarrhea, it helps the body replace the fluids and minerals lost through the diarrhea. This process is essential for preventing dehydration, which, as discussed before, is a severe lack of body fluids and can cause death of children.

Ask participants: "Do you keep ORS in your shops? If not, why not?"

Ask participants: "Do you think most caregivers know how to prepare ORS?"

"Do you know how to prepare ORS?"

"Could you explain it to a customer?"

How to Prepare ORS (see slide 6.16)

- Always wash your hands before preparing the ORS.
- Use clean water (boiled, then cooled).
- Measure 1 liter of water into a clean container.
- Add the contents of a sachet of ORS powder into the water and stir, using a clean spoon.
- Put the prepared solution into a clean bottle or container with a lid.
- Use all the solution on the same day that it is prepared; any solution left over should be discarded; prepare new solution the next day.
- Some presentations of ORS are 200 ml, in which case five packets are needed for 1 liter of water.

Distribute the laminated sheet of target practices for diarrhea, showing the side of the instructions for ORS preparation to the participants.

ACTIVITY: ORS PREPARATION

Introduce the activity: Because ORS is the recommended treatment for diarrhea, let’s practice making it so we are better able to instruct our customers.

Instructions:

- Divide the participants into groups of four or five people.
- Provide each group with a packet of oral rehydration salts, a container for mixing the solution, purified water, a 1-liter container, and a mixing spoon.
- Ask participants to follow instructions for mixing on the handout called “How to prepare ORS.”
- Supply cups so that participants can taste the ORS solution if they choose.

Explain how much ORS should be given to the child (see slide 6.17).

Age	Amount of ORS Given after Each Loose Stool	Amount of ORS to Provide for Use at Home
Up to 24 months	50–100 ml (¼ to ½ cup)	500 ml/day
Over 2 years	100–200 ml (½ to 1 cup)	1,000 ml/day

If ORS is not available, advise the caregiver to give the child extra fluids, more than usual. If the infant is still breast-feeding, explain to the mother that she should breast-feed more often and for longer. If the infant is exclusively breast-fed, he or she should be given ORS in addition to mother's milk. If the child is not exclusively breast-fed, ORS, liquid foods, and clean drinking water should be given in addition to mother's milk.

Follow ORS with zinc tablets.

Explain how much zinc supplement the IMCI national guideline recommends (slide 6.18).

Zinc (20 mg) 1 dose daily for 10 days		
Age	Dose	Duration
Up to 6 months	½ tablet per day	10 days
6 months and older	1 tablet per day	10 days

Explain how to give zinc supplements—

- Infant: Dissolve the tablet in a small amount of expressed breast milk, ORS, or clean water in a small cup or spoon
- Children: Tablets can be chewed or dissolved in a small amount of clean water in a cup or a spoon
- Continue feeding

Complicated Diarrhea: Blood in the Stool (see slide 6.19)

Explain: If blood is present in the stool, dysentery is very likely. Then, referral is urgent to a health care provider who has the ability to prescribe the appropriate medicine in addition to ORS and zinc tablets. Medicines will be dispensed at the pharmacy according to the prescription.

Remind participants that a generic medicine is of equal quality and is more affordable for the caregiver.

6. Provide advice on how to give the medicine (see slides 6.20 and 6.21)

- Explain to the caregiver what the correct dose is and how to give the medicine prescribed.
- 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 using words and signs (for example, drawing of sun and moon), if necessary.
- Explain the potential side effects: hypersensitivity reactions, blood effects, and skin reactions. If the side effects are bad, tell the caregiver to 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 sooner.
- Make sure that the caregiver has understood before he or she leaves by asking the caregiver to repeat back the instructions.

7. Recommend continuation of feeding/breast-feeding during illness (see slide 6.22)

8. Provide information on how good personal hygiene and cleanliness can help in preventing many cases of diarrhea (according to the earlier discussion)

9. Check or inquire about fever and cough or difficult or fast breathing

Ask participants: “Why is it necessary to inquire about fever, cough, and difficult/rapid breathing for a child with diarrhea?”

Explain (see slide 6.23): Children often have more than one illness, and the caregiver may not think to mention all of the child’s symptoms.

- If the child also has fever, follow procedures and treatment outlined in the session on malaria (fever).
- If the child also has a cough and difficult or rapid breathing, follow the procedures and treatments outlined in the session on acute respiratory infections.

10. Explain to the caregiver the signs to watch for that require immediate referral to a health facility and medical care

Ask participants: “What of kind of signs should you tell parents or caregivers of children to look for?”

Explain that certain signs, which have been discussed before, can lead to death in young children. What are they?

Make sure the following signs are mentioned (**see slide 6.24**)—

- ✓ General danger signs (unable to drink or breast-feed, vomits everything, high and persistent fever, lethargic and nonresponsive, diarrhea and dehydration, cough and fast breathing)
- ✓ Suspected dysentery (blood in stool)
- ✓ Chronic diarrhea (longer than two weeks)

Explain that private providers have an important role to play in advising caregivers what these signs are that require urgent medical care. If a caretaker recognizes any of these signs, the child should immediately be taken to a health facility.

Distribute and explain the laminated documents on the danger signs for diarrhea.

ACTIVITY: SMALL GROUP PRACTICE/ROLE PLAY

Introduce the activity: Role play provides an opportunity to practice the skills and knowledge we have learned in this session. In this activity, we will break into groups of four. Each group will perform two role plays.

Instructions:

- Divide the participants into groups of four.
- **Give directions for the activity (see slide 6.25):** 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, actors become observers and observers become actors. Everyone should have the opportunity to participate in the role play.

Role Play One: The caregiver of a child who has nonbloody diarrhea comes into a private pharmacy and asks the pharmacy staff for advice on treatment.

Role Play Two: The caregiver of a child who has bloody diarrhea comes into a private pharmacy and asks the pharmacy staff for advice on treatment.

- At the end of each role play, each group should discuss what worked, what was missing, whether the correct advice was provided, what could have been done better, and so on.
- Allow 10 minutes for each role play and discussion.
- Observers should use the laminated documents to check whether the actors followed all the steps in the target practices and recommended the correct treatment
- After the first role play (10 minutes), ask observers and actors to switch and act out the second role play.
- Facilitators should circulate among the small groups, giving advice as necessary.
- After the activity is completed, bring the entire group together again to discuss reactions and comments from the role play.

Summary of target practices (see slide 6.26)

Distribute the session notes for the participants to insert into their binders.

SESSION 7. ACUTE RESPIRATORY INFECTION

Pneumonia and Non-Pneumonia (Cough or Cold)

Purpose and content:

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

Objectives (see slide 7.1):

After completing this session, participants will be able to—

- Distinguish between pneumonia and non-pneumonia acute respiratory infection based on an assessment of the signs and symptoms
- Describe target practices for ARI based on Integrated Management of Childhood Illnesses (IMCI) guidelines

Duration: 2 hours

Session plan:

- Determine signs and symptoms
- Watch IMCI video
- Overview of aims of managing acute respiratory infections in children
- Review and discussion of specific target (desired) practices
- Small group practice

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

INTERACTIVE PRESENTATION: CONDITION AND AIMS OF MANAGEMENT

Explain (see slide 7.2): There are three categories of acute respiratory infection: (1) non-pneumonia cough or cold, (2) pneumonia, and (3) severe pneumonia. Distinguishing among the three is important because the treatment will depend on this determination. Therefore, we must carefully assess the signs and symptoms.

Ask participants: “What are the signs and symptoms for a child with a cough or a cold (non-pneumonia)?”

Signs and symptoms for a cough or a cold, when no pneumonia is present (see slide 7.3)—

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

Ask participants: “What are the signs and symptoms for a child with pneumonia?”

Signs and symptoms for pneumonia (see slide 7.4)—

- ✓ **Fast or rapid breathing**
- ✓ Difficulty breathing
- ✓ Possibly with fever
- ✓ Possibly with cough

Ask participants: “What is considered ‘rapid breathing’?”
“Have you ever seen a child with rapid breathing?”

Explain what is considered “rapid breathing” (see slide 7.5).

Age of Child	Breathing Is Rapid When Respiratory Rate Is—
2 months–12 months	50 breaths per minute or more
13 months–5 years	40 breaths per minute or more

Explain: Again, correctly assessing the signs and symptoms is important to determine the appropriate treatment. Management of ARIs is aimed at treating the cause of the infection (bacteria), in the case of pneumonia, or managing the symptoms, in the case of a viral cough or cold.

INTERACTIVE PRESENTATION: TARGET PRACTICES

Introduce the section (see slide 7.6): When a customer enters your pharmacy with a child who has ARI, follow the framework of practice that we outlined in Session 5. 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. In this section, we review specific target practices for cases of acute respiratory infection in children that will need to be incorporated into the overall process of evaluation, referral, or management.

I. Assess the severity of the illness

Explain: The signs of severe illness are the same signs we discussed in the previous session and they are not specific to a certain condition. Let’s review these signs.

Ask participants: “How can you tell if a child is severely ill?”

Make sure the following six general danger signs are mentioned (see slide 7.7)—

- ✓ The child is not able to drink or breast-feed.
- ✓ The child vomits everything he or she eats or drinks.
- ✓ The child has high and persistent fever.
- ✓ The child is not active or responding to stimulation, such as calling his or her name.
- ✓ The child has diarrhea and dehydration.
- ✓ The child has a cough with fast breathing.

As well as signs specific to ARI—

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

Remind the participants of the urgency of getting immediate clinical care at a referral site for any child with the preceding signs in order to save the child's life.

ACTIVITY: IMCI VIDEO

Show the general danger signs, chest in-drawing and rapid breathing on the video and do the corresponding video exercises.

2. Check or inquire about fast or rapid breathing (see slide 7.8)

Explain: If fast or rapid breathing is present, the child has pneumonia and should be referred to a health provider.

3. Give the appropriate treatment for acute respiratory infections

No Fast or Rapid Breathing (Non-Pneumonia) (see slide 7.9)

Explain: If no fast or rapid breathing is present, the child most likely does not have pneumonia. You will find that for most cases of cough or cold, no fast or rapid breathing is present. These cases are caused by viruses and therefore will not respond to an antibiotic.

Explain: The appropriate treatment for simple cases of cough or cold is paracetamol for fever and headache and an inoffensive remedy to soothe the cough, such as lemon and honey for children over six months of age, or breast milk for infants. That is all that is needed.

Emphasize: Antibiotics are not useful in treating non-pneumonia cough or cold and neither are cough syrups (expectorants or suppressants) or mucolytics because, in general, they are ineffective and costly.

Fast or Rapid Breathing (Pneumonia) (see slide 7.10)

Explain: If fast or rapid breathing is present, referral to an appropriate health facility is urgent because an antibiotic is needed to treat pneumonia. According to the IMCI guidelines, the first-line treatment that should be used to treat pneumonia is **co-trimoxazole**. This medicine requires a prescription from a medical provider. The second-line antibiotic, amoxicillin, can also be recommended to treat pneumonia.

List the various brand names for co-trimoxazole that are stocked in the local pharmacies (for example, Cotrex, Cotrim, Bactrim). Remind participants that a generic medicine is of equal quality and is more affordable for the caregiver.

Indicate the correct dose of co-trimoxazole and amoxicillin for children under five years of age (see slides 7.11 and 7.12).

Age	Co-trimoxazole (trimethoprim + sulfamethoxazole) Give 2 times a day for 3 days			Amoxicillin (25mg/kg/dose) Give 2 times a day for 3 days	
	Adult tablet 80 mg trimethoprim + 400 mg sulfamethoxazole	Syrup 40 mg trimethoprim + 200 mg sulfamethoxazole	Pediatric tablet 20 mg trimethoprim + 100 mg sulfamethoxazole	Tablet 250 mg	Syrup 125 mg per 5 ml
2–12 months (4–10 kg)	½ tablet	5.0 ml (1 teaspoon)	2 tablets	½ tablet	5 ml (1 teaspoon)
13 months– 5 years (10–19 kg)	1 tablet	7.5 ml (1½ teaspoons)	3 tablets	1 tablet	10 ml (2 teaspoons)

4. Provide advice on how to give the medication to the child

As mentioned in the framework (see slide 7.13)—

- Explain to the caregiver 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 using words and/or signs (for example, drawing of sun and moon), if necessary.
- Where co-trimoxazole is sold, explain the potential side effects (see slide 7.14): hypersensitivity reactions, blood effects, and skin reactions. If the side effects are bad, tell the caregiver to 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 sooner.
- Make sure the caregiver has understood before he or she leaves by asking the caregiver to repeat back the instructions.

5. Recommend giving the child plenty of fluids

Ask participants (see slide 7.15): “Why it is recommended in the IMCI clinical guidelines to give a child plenty of liquids in the case of ARI?”

Explain that fluids soften the mucus in the child’s chest and help the child get rid of it.

6. Recommend continuing feeding/breast-feeding during child’s illness

Ask participants: “Why is it recommended in the IMCI clinical guidelines to continue feeding/breast-feeding during child’s illness in the case of ARI?”

Explain that feeding is essential to maintain nutrition and help the child recover.

7. Check or inquire about fever and diarrhea

Ask participants: “Why inquire about fever and diarrhea for a child with a cough and/or fast or rapid breathing?”

Explain (see slide 7.16): Children often have more than one illness, and the caregiver may not think 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 malaria (fever).
- *If the child also has diarrhea*, he or she should be treated following the procedures and treatments outlined in the session on diarrhea.

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

Ask participants: “What of kind of signs should you tell parents/caregivers of children to look for?”

Explain that certain signs, which have been discussed before, can lead to death in young children. What are they?

Make sure the following signs are mentioned (see slide 7.17)—

- ✓ Six general danger signs (unable to drink or breast-feed, vomits everything, high and persistent fever, lethargic and nonresponsive, diarrhea and dehydration, cough and fast breathing)
- ✓ Child is not active

Explain that private providers have an important role to play in advising caregivers what the signs are that would require urgent medical care. If a caretaker recognizes any of these signs, the child should immediately be taken to a health facility.

Distribute and explain the laminated documents on the target practices for ARI and the treatments and the dosages for the medicine used.

Also distribute and explain the laminated document on the danger signs of ARI.

ACTIVITY: SMALL GROUP PRACTICE/ROLE PLAY

Introduce the activity (see slide 7.18): Role play provides an opportunity to practice the skills and knowledge we have learned in this session. In this activity, we will break into groups of four. Each group will perform two role plays.

Instructions:

- Divide the participants into groups of four.
- **Give directions for the activity:** 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, actors become observers and observers become actors. Everyone should have the opportunity to participate in the role play.

Role Play One: The caregiver of a child with symptoms of a *cough or cold* comes into a private pharmacy and asks the pharmacy staff for advice on treatment.

Role Play Two: The caregiver of a child who has symptoms of *pneumonia* comes into a private pharmacy and asks the pharmacy staff for advice on treatment.

- At the end of each role play, each group should discuss what worked, what was missing, whether the correct advice was provided, what could have been done better, and so forth.
- Allow 10 minutes for each role play and discussion.
- Observers should use the laminated documents to check whether the actors followed all the steps in the target practices and recommended the correct treatment

- After the first role play (10 minutes), ask observers and actors to switch and act out the second role play.
- Facilitators should circulate among the small groups, giving advice as necessary.
- After the activity is completed, bring the entire group together again to discuss reactions and comments from the role play.

Summary of target practices (see slide 7.19)

Distribute the session notes for the participants to insert into their binders.

SESSION 8: MALARIA (FEVER)

Purpose and content:

Malaria is a main cause of illness and death in adults and children, especially in remote, hilly, forested areas of Cambodia. In addition, antimicrobial resistance to medicines is also a major problem in provinces along the Cambodian-Thai border. In 2000, the Ministry of Health in Cambodia changed the treatment recommendations for malaria from chloroquine to a more effective combination of artesunate plus mefloquine (A+M). Malaria treatment in the public sector is available in three different blister packages according to age group. Malarine® is the antimalarial treatment distributed by a nongovernmental organization called Population Services International (PSI) at the private pharmacies. However, no prepackaged treatment exists for children under six years of age.

The purpose of this session is to review the signs and symptoms of childhood malaria and to explain the appropriate treatment guidelines for the A+M combination therapies.

Objectives (see slide 8.1):

After completing this session, participants will be able to—

- Identify the correct treatment for malaria
- Describe target practices for malaria based on IMCI guidelines

Duration: 2 hours

Session plan:

- Determine signs and symptoms
- Overview of aims of managing malaria in children
- Review and discussion of specific target (desired) practices
- Small group practice

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

INTERACTIVE PRESENTATION: CONDITION AND AIMS OF MANAGEMENT

Ask participants: “What are the signs and symptoms for a child with malaria?”

Signs and symptoms of malaria (see slide 8.2)—

- High fever >39°C
- Chills
- Vomiting
- Diarrhea
- Crying and restlessness
- Headache
- Convulsions (severe malaria)

Ask participants: “What is the primary aim in managing malaria?”

Explain (see slide 8.3): The aim in managing malaria is to treat the malaria with an antimalarial. However, if fever is high, we also need to treat the fever with an antipyretic, such as paracetamol.

INTERACTIVE PRESENTATION: TARGET PRACTICES

Introduce the section (see slide 8.4): When a customer enters your pharmacy with a child who has malaria, follow the framework of practice that we outlined Session 5. 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. In this section, we review specific target practices for cases of childhood malaria that will need to be incorporated into the management element of the framework.

1. Assess the severity of the illness

Explain: The general danger signs are the same signs we discussed in the previous session. Let’s review these signs.

Ask participants: “How can you tell if a child is severely ill?”

Make sure the following six general danger signs are mentioned (see slide 8.5)—

- ✓ The child is not able to drink or breast-feed.
- ✓ The child vomits everything he or she eats or drinks.
- ✓ The child has high and persistent fever.
- ✓ The child is not active or responding to stimulation, such as calling his or her name.
- ✓ The child has diarrhea and dehydration.
- ✓ The child has a cough with fast breathing.

Perform a biological diagnosis by using a Rapid Diagnostic Test (Paracheck®) (see slide 8.6).

Remind the participants the urgency of getting immediate clinical care at a referral site for any child with the preceding signs to save the child’s life.

2. Give the appropriate treatment for malaria: Based on the result of the blood test, or on the prescription, give/recommend the correct antimalarial medicine in correct dose and for the correct duration.

Treating Malaria

Ask participants: “What medicine or medicines are recommended by the Ministry of Health for simple childhood malaria?”

Explain (see slide 8.7): For uncomplicated cases of *P. falciparum* type malaria, the Ministry of Health (MoH) recommends a combination of artesunate plus mefloquine (A+M) tablets.

Ask participants: “What is the correct dose/duration for A+M therapy for children with simple malaria?”

Discuss and share the correct answer with participants, using the following dosage chart, which summarizes the first-line national treatment guidelines for simple malaria (see slide 8.8).

Dosage Chart for Artesunate 250 mg Tablet and Mefloquine 50 mg Tablet

Age	Weight	Day 1	Day 2	Day 3
2-11 months	3-<10 kg	Artesunate ½ tablet	Artesunate 1 tablet PLUS Mefloquine ½ tablet	Artesunate ½ tablet
12 months to 5 years	10-<14 kg	Artesunate 1 tablet	Artesunate 1 tablet PLUS Mefloquine 1 tablet	Artesunate 1 tablet

Explain: The MoH recommends treating cases of *P. vivax* malaria with chloroquine if the dipstick is positive for this type of malaria *only* (see slide 8.9).

Dosage Chart for Chloroquine

		150 mg Tablet			Syrup 25 mg/5 ml		
Age	Weight	Day 1 10 mg/kg	Day 2 10mg/kg	Day 3 5 mg/kg	Day 1 10mg/kg	Day 2 10mg/kg	Day 3 5 mg/kg
2-6 months	4-<7 kg	½ tablet	½ tablet	¼ tablet	10 mg/kg body weight	10 mg/kg body weight	5 mg/kg body weight
7-12 months	7-<10 kg	½ tablet	½ tablet	½ tablet			
13-35 months	10-<14 kg	1 tablet	1 tablet	½ tablet			
3-5 years	14-19 kg	1½ tablet	1½ tablet	½ tablet			

Explain to the caregiver that she or he should watch the child carefully for 30 minutes after giving a dose of chloroquine. If the child vomits within 30 minutes after taking this medicine, the caregiver should repeat the dose and return to the clinic for additional tablets.

Ask the participants to list some of the commonly available brand names for artesunate and mefloquine combination. Remind participants that a generic medicine is of equal quality and more affordable for the caregiver. Discuss the high number of fake and substandard medicines circulating in the market.

In 2001, the MoH conducted a medicine quality study and found that 13.5 percent of medicines circulating in the market were fake because they failed quality testing. This study also revealed that 50 percent of medicines collected during the study were not registered in the country. Of the unregistered medicines, 22.3 percent were found to be counterfeit, while only 5.2 percent of medicines that were registered were found to be counterfeit.

In 2003, another study was conducted to test the quality of antimalarial medicines. This study concluded that 44 percent of the quinine sampled contained no active ingredient and 25 percent of the artesunate sampled contained no active ingredient.

Treating Fever

Explain (see slides 8.10 and 8.11): Ask the caregiver if the child is too hot. In addition to the antimalarial treatment, the child needs an antipyretic (paracetamol) to bring the fever down.

List commonly available brand names for paracetamol (for example, Efferalgan, Doliprane, Paramox). Remind participants that a generic medicine is of equal quality and is more affordable for the caregiver.

Paracetamol 12.5 mg/kg/dose			
Age	Tablet (100 mg)	Tablet (500 mg)	Syrup 125 mg/5 ml
2 to 35 months 4–<14 kg	1 tablet	¼ tablet	5 ml (1 tsp)
3 to 5 years 14–<19 kg	1½ tablets	½ tablet	10 ml (2 tsp)

Give paracetamol every 6 hours until high fever is gone

3. Provide advice on how to give the medication to the child (see slide 8.12)

As mentioned in the framework—

- Explain to the caregiver what the correct dose is and how to give the medicine (refer to the appropriate 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 using words and signs (for example, drawing of sun and moon), if necessary.
- Discuss side effects (see slide 8.13)—
 - Artesunate: nausea, vomiting, dizziness
 - Mefloquine: nausea, vomiting, diarrhea, and dizziness
 - Chloroquine: vomiting, itching

If the side effects are bad, the caregiver should take the child to a health facility. The side effects can be minimized if the medicine is taken with a meal.

- Explain that the medicine should be taken until the end of the course, even if the child gets better sooner.
- Make sure that the caregiver has understood before he or she leaves by asking the caregiver to repeat back the instructions.

4. Recommend giving the child plenty of fluids (see slide 8.14)

Fluids help reduce fever and compensate for the loss of fluids through sweating.

5. Recommend continuing feeding/breast-feeding during child's illness

Ask participants: “Why is it recommended in the IMCI guidelines to give a child plenty of liquids and continue breastfeeding in the case of malaria?”

Explain: 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.

6. As before, check or inquire about cough, difficult or rapid breathing, and diarrhea

- If the child also has a cough and difficult or rapid breathing, follow the procedure and treatment outline in the session on acute respiratory infection.
- If the child also has diarrhea, he or she should be treated following the procedure and treatment outlined in the session on diarrhea.

7. Explain what signs to watch for that require immediate medical care

Ask participants: “What of kind of signs should you tell parents/caregivers of children to look for?”

Explain that certain signs, which have been discussed before, can lead to death in young children. What are they?

Make sure the following signs are mentioned (**see slide 8.15**)—

- ✓ Six general danger signs (unable to drink or breast-feed, vomits everything, high and persistent fever, lethargic and nonresponsive, diarrhea and dehydration, cough and fast breathing)
- ✓ Fever persists two days after treatment for malaria

Explain that private providers have an important role to play in advising caregivers what these signs are that require urgent medical care. If a caretaker recognizes any of these signs, the child should immediately be taken to a health facility.

8. Give or recommend buying a long-lasting insecticide-treated net (LLITN, Malanet®) and advise that young children and any pregnant women sleep under it

Ask participants: “Are you familiar with LLITNs?”
“How do they prevent malaria episodes?”
“Why is this particularly important with pregnant women?”

Explain (see slide 8.16): Bednets provide a physical barrier to mosquitoes at night, the time when they are most likely to bite. The nets 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 LLITNs in stock in your pharmacy?”

If not, discuss why not and the barriers to stocking them. LLITNs are available through PSI under the brand name of Malanet.

Distribute and explain the laminated documents on the target practices for malaria and the treatments and dosages for the medicines used as well as the sheet on danger signs for malaria.

ACTIVITY: SMALL GROUP PRACTICE/ROLE PLAY

Introduce the activity (see slide 8.17): Role play provides an opportunity to practice the skills and knowledge we have learned in this session. In this activity, we will break into groups of four. Each group will perform one role play.

Instructions:

- Divide the participants into groups of four.

- **Give directions for the activity:** Each group will need to identify two people to participate in the role play and two people to observe and report on the interaction.

Role Play: The caregiver of a sick child with a *simple fever* comes into a private pharmacy and asks the pharmacy staff for advice on treatment.

- At the end of the role play, each group should discuss what worked, what was missing, whether the correct advice was provided, what could have been done better, and so forth.
- Allow 10 minutes for the role play and discussion.
- Observers should use the laminated documents to check whether the actors followed all the steps in the target practices and recommended the correct treatment
- Facilitators should circulate among the small groups, giving advice as necessary.
- After the activity is completed, bring the entire group together again to discuss reactions and comments from the role play.

Summary of target practices (see slide 8.18)

Distribute the session notes for the participants to insert into their binders.

SESSION 9: HOW TO BE MORE EFFECTIVE IN YOUR WORK

Purpose and content:

The purpose of this session is to help participants translate what they have learned into practice. Changing customers' beliefs and behaviors is also discussed as an essential component to providing effective treatment and promoting rational use of medicines.

Objectives (see slide 9.1):

After completing this session, participants will be able to—

- Describe strategies for incorporating this new information and knowledge into practice
- Describe the general principles related to patient counseling
- Outline strategies to respond to customers who refuse their advice

Duration: 1 hour 30 minutes

Distribute the copies of the slides for the session so participants can take notes during the presentation if they wish.

INTERACTIVE PRESENTATION

I. Putting knowledge into practice (see slide 9.2)

Explain: Applying best practices in treating diarrhea, acute respiratory infections, and malaria may require changes on the part of the pharmacy staff. Clearly, new information must be learned. This process encompasses evaluating the customers' needs, recommending treatment according to the IMCI guidelines, and providing information to the customer, for example, as provided in this course.

Discuss openly the implications of the suggested changes in practice and what they might mean to the individual pharmacy staff and their place of work; what the potential barriers are to implementing the changes discussed in the training; and how they can be overcome (**see slide 9.3**).

Provide practice tips (**see slide 9.4**)—

- Discuss possible changes that might make this process easier, for example, labels to write directions clearly on medicines.

- Remember to follow the target practices. If you can't remember all the steps and questions, a good plan would be to put the laminated sheets of the target practices and treatment checklists or other information from the course where they can be referred to as you speak with the customer (for example, on the counter).
- Remember that your action or recommended treatment may save a child's life.
- Be prepared to be firm with the customer who has wrong ideas about appropriate treatment. You may often have to dispel myths that the customer might have about both the disease itself and proper treatment. At times this action may be difficult because your friends, neighbors, and even your family may disagree with what you know to be the best treatment.

Explain: If this new approach is different from what you already do, you will need to be steadfast in following the target practices with a clear understanding of why they are in the best interests of the pharmacy and the patient. Practicing with your fellow staff members will help, and talking with your pharmacist will provide reinforcement.

2. Changing customers' behavior

Discuss: Although we may know what the proper treatment is, the customer often needs convincing, particularly when the medicine is different from what has been used for some time.

Either of these situations may require a behavior change on the part of the customer. What can be done? What action can be taken? Encourage discussion.

Ask participants: "Why would a customer say she or he does not agree with your advice?"

Listen to responses and summarize.

Possible answers include (see slide 9.5)—

- "But I've always taken (inappropriate treatment)."
- "I always take chloroquine for fever."
- "It can't be as good because it doesn't cost as much." (especially for generics)
- "My mother always said . . ."
- "You want me to continue breast-feeding? That's not right!"

Ask participants: "Why would a customer say she or he does not want to follow your advice on the dose or duration of treatment (nonadherence)?"

Possible answers include (see slide 9.6)—

- "I will stop the treatment if my child feels better after two days, then I won't have to make another visit to the pharmacy the next time one of my children gets sick."
- "You want me to give them how many times a day? That's too much!"

Ask participants: “Why would a customer not accept and follow your advice?”

Possible answers include (see slide 9.7)—

- The customer is not convinced that your advice is appropriate or correct.
- The customer is not ready to change.
- The advice is contrary to accepted practice in the customer’s experience.
- The customer does not think you are knowledgeable enough.

Provide the general principles of patient counseling (see slide 9.8). Learning to effectively communicate information about the disease and the recommended treatment guidelines will help in changing the beliefs and practices of our customers. It is equally important that the customer realize the consequence of not following the recommended treatment guidelines: unsuccessful treatment and wasted resources.

The general principles relating to patient counseling (see slide 9.9)—

1. Information
 - Provide adequate information about the disease and the treatment
2. Education
 - Educate the customer about the disease, the severity, the likely outcomes of treatment and nontreatment
 - Stress the advantages of the recommended treatment over what the customer took before, and use simple language that can be understood
3. Communication
 - Make sure that the customer understands the treatment is essential
 - Avoid closed questions—for example, “Have you understood?”—where the answer is yes or no. Ask open questions—for example, “How will you give this medicine to your child?”
 - Ask customers to repeat back your directions with regard to dose frequency and duration and mixing (for ORS).

Ask participants: “What can we say to help convince customers and patients to accept our advice and follow our recommendations?”

Possible responses (see slide 9.10)—

- “This treatment has been shown to be much more effective than the older one.”
- “The Ministry of Health recommends . . .” or “the WHO recommends . . .”
- “Would you like to speak to the pharmacist?”
- “This is what I give my children.”

Note to trainer: Behavior change is a very difficult area but essential to promoting rational use of medicines. We have chosen not to raise the question of when a customer may not have the

money necessary to pay for a full course of treatment because it has no easy answer. If this question comes up in discussion, simply recommend that participants discuss this and other difficult questions. Each pharmacy should have a policy for addressing these specific areas.

ACTIVITY: SMALL GROUP PRACTICE/ROLE PLAY

Introduce the activity (see slide 9.11): You will need to build your confidence in replying to the customers and you should practice your responses so they come naturally.

Instructions:

- Select a case for role play to be acted out in front of the entire group.

Case 1: For a case of malaria, after you have recommended the combination treatment for malaria, the customer responds: “I don’t want anything other than chloroquine for malaria, we have all used it for years and it works. These new medicines are just too expensive.”

Case 2: For a case of diarrhea, after you have recommended ORS, the customer responds: “I do not want to give my child just ORS. I want an antibiotic to stop the diarrhea. If you won’t give it to me, I’ll go down the street and buy it there.”

- Determine who will act out the role play for the group. This could involve—
 - Two facilitators
 - One facilitator and participant
 - Two participants
- Perform the role play for the entire group.
- Ask the group to comment on the interaction, noting the strategies used by the pharmacy staff to convince the customer of the wisdom of his/her advice.
- Ask the group to pair up to act out the other situation.
- Bring the entire group together to discuss what strategies were used and any problems that came up through the role play.
- Ask participants themselves to provide solutions to these difficult questions.

Distribute the session notes for the participants to insert into their binders.

SESSION 10: POSTTRAINING ASSESSMENT AND COURSE EVALUATION

Purpose:

The purpose of this session is to complete a posttraining assessment and participant evaluation of the training course. In comparing the results of the pre- and posttraining assessments, we can determine whether participants improved their knowledge regarding proper treatment practices for the three common childhood illnesses of diarrhea, ARI, and malaria.

To evaluate the success of the training and receive feedback from the participants about how to improve the training, participants will also complete a brief evaluation form.

Duration: 30 minutes

Prepared ahead of time:

- ✓ 1 copy of posttest for each participant
- ✓ 1 evaluation form

ASSESSMENT: POSTTRAINING ASSESSMENT AND COURSE EVALUATION (SEE SLIDE 10.1)

Procedure:

1. Ask participants to remember their number used for the preassessment in Session 2. Ask each participant to write the number on the bottom right-hand corner of the assessment. Individuals will not be identified.
2. Distribute and explain the assessment to all participants and ask if they have any questions. (If they want, the trainees can consult their notes to complete the evaluation.)
3. Allow 20 minutes to complete the assessment.
4. As participants complete the posttraining assessment, collect their papers, and distribute the evaluation forms.
5. Provide 5–10 minutes to complete the forms. Collect all forms.

SESSION 11: CLOSING

Purpose and content:

The purpose of this session is to explain follow-up activities and to effectively close the training. Participation will be recognized with Certificates of Participation in a closing ceremony.

Duration: 30 minutes

PRESENTATION: CLOSING STATEMENTS AND FOLLOW-UP (SEE SLIDE 11.1)

Discuss follow-up to the training. We hope not only that this training changes your knowledge but also that the practices in your pharmacies change as a result, to improve child health outcomes.

ACTIVITY: CLOSING CEREMONY

Invite participants to come to the front of the room one by one when their name is called to be recognized for their participation in this training. Congratulate participants on successfully completing the training.

Distribute Certificates of Participation one by one and thank participants for their attendance and concentration.

