1. Introductory Session

Objectives

At the end of the session, the participants will be able to:

- Identify the other participants and where they are from.
- List and explain the goal and objectives of the course
- Describe the course program
- Explain their own expectations of the course

Assumptions

All participants are fully trained CHWs who have been working as CHWs for more than a year.

Content

- Introductions
- Explanation of the goal and objectives of the course by the facilitators
- Discussion of participants' expectations and training needs.

Methods

- Encourage as much participation from all participants as possible in this first session.

Materials

- Introduction to the course with the goal and objectives explained
- Course program and timetable
- Paper and pen to write down the topics that they are most concerned about.

Training Guide

A. Welcome.

- Make sure that everyone is sitting comfortably and that they can see you.
- If possible arrange for people to sit in a circle so that they can all see each other.
- Greet everyone.

B. Recitation from the Holy Quran

- Before the course begins, ask the local organizers who should be asked to do the recitation.

C. Introductions

1. Ask all the participants to introduce themselves.
2. Ask them to give their name, where they are from, how long they have been working as a CHW.
3. Ask them all to share a particular experience as a CHW. They could choose:
    - Their happiest experience
    - Their most difficult experience
    - The funniest experience
    - Their greatest achievement as a CHW.

D. The Course Program

1. The course goal and objectives

Goal: To enable the participants to become more competent and confident in managing sick children in the community.

Objectives:

At the end of the course the participants will be able to:

a. Demonstrate competence in use of the Sick Child Case Management Charts to assist them in assessing, classifying and managing sick children.
b. Demonstrate competence in assessing the signs that show the presence or severity of diseases of children.
c. Explain the correct treatment and management for a sick child according to his/her age.
d. Demonstrate the ability to communicate effectively with the mother or caretaker of a sick child.

2. **The course program**

- Describe and explain the program for the three days of the course.
- Explain arrangements for lunch and refreshments.
- Explain any arrangements for travel or accommodation if those are relevant.
- Answer questions on any of the arrangements for the course.

3. Participants' expectations

Take 5 to 10 minutes to encourage the participants to talk about their expectations of the in-service course. One of the facilitators should take notes of the points that are raised.

(One of the objectives of this discussion is to get as many participants as possible participating at least once. Encourage the quieter ones and do your best to control the noisy ones right from the start.)

- Ask them to say what they hope to get out of the course. Some may have general hopes, but some may have some very specific desires for the course.

- If answers come slowly, ask what they have found most helpful in previous in-service training courses. Do they think that this course could be helpful in the same way?

- Ask them what they have found most easy or most difficult in managing sick children at the health post. For example:
    - Is it easy to know when to refer a child to the health center?
    - Are there particular signs of diseases that they find difficult to recognize?
    - Do parents always follow their instructions about treatment, about feeding the child, returning for a follow-up check, or for referral to hospital?

- Of all the things that have been mentioned, which are the ones that they would specially like to learn more about?

- Finally, explain that because everyone's needs are slightly different, you will be following the course outline, but you have made a list of the topics mentioned, and special attention will be given to them when they come up in the program.

Making it Easier for CHWs to Learn: Reference

1. Skills are more important than knowledge.

Everyone enjoys learning new things, hearing new stories and discussing new ideas. These are all important. They help us to understand our world and the possibilities of improving our lives. But in order to improve our lives, we have to turn that knowledge into action. The things we do to improve our lives are called *skills*. The job of CHWs is to improve the health and the lives of families in their communities. They do this by using new skills that they have learned, and by teaching many of those skills to others in their communities.

There are three main types of skills needed by CHWs:

- communication skills,
- decision skills and
- practical skills.

Communication is the exchange of information and ideas between two or more people. Communication can be one way or two way communication. The most important is to have two way communications. CHWs and CHW trainers have to be good listeners and understand and respect other people's ideas before they can introduce new ideas about being healthy. For example, good communication skills are needed to persuade a pregnant mother to attend antenatal care for tetanus toxoid immunizations or a couple to use a birth spacing method.

Decision skills are needed to decide what kind of sickness a child has and whether she is sick enough to go to hospital. They are also needed to work out the best way to correct a mother-in-law's wrong beliefs about immunizations. They are needed to work out the best way to dispose of rubbish in the village.

There are many *practical skills* required by a CHW. They include applying a dressing to a wound or preparing ORS. Other examples would include counting the breathing rate of a sick child, detecting anemia or fever, safely cutting the cord of a newborn baby, or constructing a safe latrine.

Knowledge is still important. It is necessary in order to be able to know how and why a skill should be used, and when it should be used. Co-trimoxazole is a powerful medicine for treating sick children. It is good for treating pneumonia, but it is not helpful for a common cold or diarrhea. To be able to treat pneumonia successfully, the CHW needs to know and be able to detect the clinical signs of pneumonia, and she needs to know the right amount of co-trimoxazole to give according to the child's age. She also needs to know the general danger signs that mean that the child should go to the health centre.

Attitudes are also important. People very quickly work out if a health worker is really interested in them and respects them. Teachers can do a lot to develop good attitudes among CHWs. First they can demonstrate those attitudes to the CHWs themselves.

Second, they can demonstrate them when they are dealing with people in the clinic or the community.

2. Practice is essential.

A well-known proverb says:

> What I hear - I forget;
> What I see - I remember;
> What I do - I know.

Because skills are so important for the CHW, practicing those skills is the most important part of their training. If there is a lot of opportunity for practice, the CHW will become good at that skill and confident in her ability. First, the teacher has to explain the skill, and then demonstrate how it is done. The practical experience needs to be supervised, and the teacher needs to tell the CHW what was well done and how the performance can be improved.

The teacher has to organize opportunities for practice. Some practical skills can first be demonstrated and practiced in the classroom, but most of them need to be done in the community or in the clinic. Communication skills can be learned with other CHW students in the classroom through role-plays, but can be improved through real practice in the clinic or community. Decision skills can also be learnt through discussions and role-plays in the classroom, but still need practice in the clinic to become strong skills.

3. In-Service Training is different

In-service training is different from pre-service training because the participants have already been trained and may have several years of experience. They will have certain expectations of an in-service training course. Those expectations will depend upon what the participants think they know or want to learn, and upon their previous experiences of in-service training. Almost certainly, the participants' expectations will be different from the trainer's expectations at the beginning of the course.

The goals of in-service or refresher training are to:

- Improve competence
- Increase confidence

The objectives are:

- To learn new knowledge and skills
- To confirm old knowledge, skills and attitudes
- To correct any misunderstandings, poor skills and habits, or poor attitudes.

In in-service training, participants learn by:

- Building on the knowledge and experience they already have
- Participating in course activities
- Sharing with and observing each other

Therefore, the role of the trainer in in-service training is to:

1. Explain clearly the course objectives at the opening session and find out the expectations of the participants. Then discuss with them how the objectives and expectations can be brought together.

2. In each session and for each topic, through questions and discussion try to discover what and how much different students know or do not know, in order to help them build on what they know.

3. Arrange learning exercises so that participants have to actively work out solutions for themselves.

4. Organize the learning exercises in small groups or individually so that everyone is actively participating in learning.

5. Ask several participants to explain their answers to the rest of the group so that the right answers and the reasons for those answers become clear.

6. Encourage discussion and sharing of ideas and experiences about common problems where there is not a single solution that applies to all communities in all parts of the country.

Arrange opportunities for all or as many participants as possible to practice new practical skills.

2. How to use the Case Management Charts

Objectives

At the end of the session, the participants will be able to:

- Describe the meaning and purpose of the different types of pictures used in the charts
- Explain the organization of the case management charts.

Assumptions

- All participants are fully trained CHWs who have been working as CHWs for more than a year.
- Many of the CHWs cannot read or cannot read easily.

Content

- Introduction to charts
- Explanation of the pictures and organization of the charts
- Overview of all the charts

Methods

- Detailed study of a selection of charts to explain the organization of the charts.
- A quick look at all the charts and tables so that the CHWs can see all that is there.
- Encourage as much participation from all participants as possible.

Materials

Each participant must have his or her own copy of the Child Management Charts. They will keep them and be responsible for them.

Training Guide

A. Preparation

a. Make sure that everyone has their own copy of the chart book.

b. Explain that:
- *These are now their <u>own</u> copies.*
- *They must care for them.*
- *They must bring them to all training sessions.*

c. Make sure that everyone has enough light to read the charts easily.

d. Make sure that everyone can easily see you and your chart when you hold it up.

B. Introduction

a. Ask someone to read the title of the book on the cover page and then explain what he or she thinks that means.

b. Explain that the charts are used to help CHWs look after sick children:
- Decide what kind of sickness a child has
- Decide what treatment he needs
- Decide how much medicine he needs
- Decide if he needs to go to the health center.
- Decide when he should come back to see the CHW to make sure that he is getting better.

c. Briefly discuss with them which of those types of decisions are the ones that are most often difficult. Explain that they will discover during the training just how the charts will help them with each of these decisions.

d. Point out to them that this is the same information that is in the CHW's training manual, but it has been put into the charts and has the pictures added for those who cannot read easily.

C. Explanation of pictures and organization of the charts

Before starting:

a. *Explain that you will all now look at four charts in order to:*
   - *Understand the meaning of the different types of pictures,*
   - *Understand the way that the charts are set out on the page.*

b. *Make sure each time that all the participants have found the correct chart. (Do not assume that they can read the page numbers on the bottom of the page.)*

c. *These four charts have been selected because:*
   - *They are at the beginning of the book and easy to find.*
   - *They include most of the points that need to be understood about the charts.*

d. *This is a recommended series of questions that will guide the participants through the main points in a logical order. It tries to build on what we expect they already know. After practice, facilitators will develop their own ways of introducing the charts.*

Chart 3. Cough or difficult breathing - Pneumonia

1. Explain that (like reading), the charts are read from right to left.

2. A child with a cough.
   Ask if they understand the meaning of the picture of the child with the yellow shirt.
   - *The child has a cough.*
   - *Explain that all the charts that are about cough have this picture on the right of the page.*

3. Assess the child
   What is happening in the second picture to the left of the child that is coughing?
   - *The CHW is counting the child's breathing rate.*
   - *This picture actually means that the child HAS a FAST breathing rate.*

4. Do they recognize the vector sign between these two pictures? Do they understand what it means here?
   - *Like the vector signs on a packet of contraceptive pills, the vector sign shows the order in which things happen.*
   - *If a child has a cough, the next thing to do is to ASSESS the child. This means that the CHW has to ASK about or LOOK for other signs of sickness.*
   - *In this chart, the CHW has to LOOK for fast breathing.*

5. Classification and treatment
   Do they know the classification of a child with cough and fast breathing?
   - *Pneumonia*

   What is the correct treatment for that classification?
   - *Cotrimoxazole and continue breast feeding and food.*

6. Ask them to look at the box with writing and pictures on the left of the chart.
   Do they understand and recognize the meaning of the pictures?
   Ask one of the literate members to read the heading of the box.
   - *The tablets in this case refer to Cotrimoxazole. The second picture shows a child breastfeeding.*
   - *This is the treatment for pneumonia.*
   - *The heading of the box is the classification.*

7. Does the CHW recognize the pointing hand?
   What does she understand from the position of the hand in this picture?
   - *If the child has fast breathing, the hand points to the classification and treatment that the child needs.*

8. Follow up
   Ask the participants to look at the pictures on the far left of the chart.
   Explain that the box with the sun and the moon is the picture that was chosen to represent a full day. The two boxes mean two days.
   Pointing to the picture above the boxes, ask what the CHW and the mother would be doing 2 days after the first visit to the CHW.
   - *This is the follow up visit. The CHW is checking the baby to see if it is getting better.*
   - *For pneumonia, the follow up visit should be after 2 days unless the baby has got worse sooner.*
   - *Show how the vector sign indicates that the follow up visit is what happens next after the treatment is started.*

9. Review the general meaning of the chart:
   - The signs of sickness are on the right side of the chart
   - The management pictures are on the left of the chart.
   - The pointing hand connects them:
     "If fast breathing" THEN "Cotrimoxazole and breastfeeding"

10. Ask if there are any questions or ideas about the chart.

Chart 2. Cough or difficult breathing – Severe Pneumonia

This chart introduces the need to ASK or LOOK for more than one sign of sickness. The classification depends upon finding <u>at least one</u> of those two signs.

1. <u>Assessing the child</u>
   Check understanding of the 3 pictures on the right of the chart:
   - *Child with cough*
   - *Child with chest indrawing*
   - *Child with stridor*

2. <u>Classification</u>
   Do they know the classification of a child with a cough who also has chest indrawing OR stridor?
   - *Severe pneumonia* (Ask someone to read the heading of the box on the left of the chart.)

3. <u>Treatment</u>
   Do they recognize the treatment that is indicated in the box on the left of the chart?
   - *Start treatment with Cotrimoxazole.*
   - *Write a referral letter.*
   - *Take the child quickly to the health facility.*

4. <u>Vector signs</u>
   What do the vector signs on the right of the chart mean?
   - *If a child has a cough, ASK or LOOK for the other signs.*

   What do the vector signs inside the box on the left of the chart mean?
   - *The order in which things are done.*

5. <u>Pointing hand.</u>
   - In this chart the pointing hand means that if ONLY ONE of chest indrawing or stridor is present, the child has Severe pneumonia. (Ask someone to read the words written under the pointing hand.)
   - Sometimes the child may have BOTH chest indrawing AND stridor. This is still severe Pneumonia.

6. Ask if there are any <u>questions</u> or <u>ideas</u> about the chart.

Chart 1. General Danger Signs

This chart is similar to the previous one, but in this chart, the CHW must check for the presence of four danger signs. If at least one of the four is present, the child is classified as having Severe Disease.

1. *Explain that this is the chart on General Danger Signs. These are the signs of severe disease that we always check for first when examining a sick child.*

2. Assessing the child
   Check recognition and understanding of pictures on the right side of the chart.
   - *Child is too weak to drink from the breast or from a cup.*
   - *Child vomits up everything that he eats.*
   - *Child is lethargic or unconscious.*
   - *Child has had or is still having convulsions.*

3. Classification
   What is the classification of a child with a general danger sign?
   - *Severe Disease*

   Do they recognize the management in the pictures in the management box?

4. Pointing Hand:
   What is the meaning of the one pointing hand?
   - *If any ONE danger sign is present, the child is classified as Severe Disease.*

5. Ask if there are any questions or ideas about the chart.

Chart 6. Diarrhea with Moderate Dehydration

The important difference between this chart and the previous ones is that there are two pointing hands. This means that the classification of dehydration depends upon finding at least two signs present.

1. Do the participants recognize the meaning of the picture on the right of the chart?
   - *Child with diarrhea.*
   - *This is the picture (Like the child with cough.) that begins all the charts about diarrhea.*

2. Vector signs
   What is the meaning of the vector signs next to the child with diarrhea?
   - *They point to the signs of sickness that the CHW must ASK about or LOOK for to assess the child.*

3. Assessing the child
   Make sure that they recognize or understand the four pictures of assessment signs.
   - *Irritable or restless.*
   - *Very thirsty.*
   - *Sunken eyes.*
   - *Skin pinch goes back slowly.*

4. Pointing Hands
   In the previous chart on Danger Signs, there were four danger signs and one pointing hand. What did the one pointing hand mean?
   - *If at least ONE of the danger signs was present, the child has Severe Disease.*

   In this chart, there are four signs to assess again, but there are TWO pointing hands. Why are there TWO pointing hands?
   - *TWO pointing hands mean that AT LEAST TWO signs need to be present for a classification of Dehydration.*

5. Follow up
   What is the meaning of the squares with the sun and the moon?
   - *They represent one day*

   Why are there 5 of these squares?
   - *Follow up is in 5 days if the child has not become worse before then.*

6. Ask if there are any questions or ideas about the chart.

Chart 4. (Pneumonia.) Counting and the ages of children.

Ask the participants to go to Chart 4 on Fast Breathingand to look at the two boxes at the top of the page.

Explain that these boxes are to help remember how many breaths in a minute mean fast breathing in children of different ages.

1. Counting fingers
   Ask what they think is the purpose or meaning of the hands in these boxes.
   - *The fingers are used for counting*

   How many hands and fingers are there in the top two rows of each box?
   - *8 hands and 40 fingers in the right box*
   - *10 hands and 50 fingers in the left box*

2. Ages of children
   Ask how old they think the two children are.

   Explain that the lower row of pictures in each box explains the age range of children in each.
   - *In the left box the moon represents a month.*
   - *In the right box the tree represents a year.*

3. In the left box, what is the meaning of:
   - Two fingers and a moon?
     - *Two months old*
   - Twelve fingers and a moon?
     - *Twelve months old*
   - The line between the pictures for 2 months and 12 months?
     - *This shows that this the range of ages between 2 and 12 months.*

4. In the right box, what is the meaning of:
   - One finger and a tree?
     - *One year old*
   - Five fingers and a tree?
     - *Five years old.*
   - The line between the pictures for 1 year and 5 years?
     - *The age range is 1 year to 5 years.*

5. How many breaths in a minute mean Fast Breathing in a child between 2 months and 12 months?
   - *50 breaths in a minute*
6. How many breaths in a minute mean Fast Breathing in a child between 1 year and 5 years?
   - *40 breaths in a minute.*

D. Overview of all the Charts.

7. Lead the participants through all the charts in the book to show them what is there.
    - *Hold up your chart for everyone to see to help make sure that everyone is looking at the same chart.*
    - *Concentrate on the pictures at the right side of the chart. These indicate the main symptom of the child.*
    - *Ask the participants, in order round the room, to identify the picture on the right and what symptom it means.*
    - *Do not spend time now explaining anything else on the charts except where suggested below.*

Case Management Charts

Chart 1.	General danger signs.
Charts 2-4	Cough
Charts 5-6	Diarrhea
Chart 7	Dysentery
Chart 8	Persistent Diarrhea. (Ask for an explanation of the 14 fingers and the picture for a day.)
Charts 9-11	Fever
Charts 12-13	Measles
Charts 14-15	Ear problems
Charts 16-17	Young infants, under 2 months old.
Tables 1-7	Amount of medicines for children of different ages.

Caring for a Young Child

Point out the pictures for the ages at the top of each chart. Ask them to identify the age ranges.

Charts 1-2	Caring for a newborn in the first week of life

Charts 3-7.

Explain that these remind the CHW about the right diet and immunizations for a child, and about birth spacing for the mother.

Chart 3	Caring for a young child, 0-2 months
Chart 4	Caring for a young child, 3-5 months
Chart 5	Caring for a young child, 6-8 months
Chart 6	Caring for a young child, 9-11 months
Chart 7	Caring for a young child, 1-2 years.

8. Questions and Ideas

Explain that during the courses, they will study and learn how to use each of the charts. Invite some general ideas and questions about using the charts.

At this stage do they have any general questions or ideas about the charts?

Do they think the charts will be easy to use?

What do they think will be the most difficult parts of the charts to use?

Do they have any other worries about using the charts?

3. General Danger Signs

Objectives

At the end of the session, the participants will be able to:

- List the general danger signs on the chart
- Recognize and confirm general danger signs
- Explain the importance of general danger signs to a child's mother.
- Explain why urgent referral is necessary

Content

- Recognition of general danger signs
- Why urgent referral is necessary and what special treatment will be provided at the health facility

Methods

- Reflect and discuss
- Exercises/Case studies – group

Materials

- Child Management Charts

Training Guide

A. Reflect:

a. *Use the following questions as a way to guide a discussion about General Danger Signs and why they are important. Encourage participants to share their experiences of children who were very sick or who died.*

b. *Divide the participants into small groups (3 or 4 people in a group)). Ask each group to reflect on the following questions and then prepare to share with the rest of the group.,*

c. *Share their experiences and ideas with the rest of the group.*

- Have you ever been in the presence of a dying or very sick child?
- How did you know that the child was so sick? (What were the signs?)
- What was the disease that the child was suffering from? What did the mother tell you about how the disease started?
- What do <u>you</u> think are the most important signs that indicate danger in young children?

B. Review the chart on Danger Signs

a. *Ask all participants to turn to the chart on danger signs. It is the first chart.*

b. *Make sure that they can all identify the danger signs by the pictures.*

c. *For each danger sign, ask someone to describe how he/she would make sure that the danger sign is present. Discuss what is said with the rest of the group and talk about the difficulties in checking for the danger signs.*

d. *Make sure that they understand that the **ONE** pointing hand means that if only one danger sign is present, the child should be referred. There may be more than one danger sign.*

C. Exercise: Case studies.

a. *Ask the participants to work in their groups again and then be ready to report to the others.*

b. With each of the case studies, ask the participants to use the charts to identify whether the child has any danger signs.

c. Ask them <u>again</u> how they would confirm that the danger sign is present.

d. Discuss with them why urgent referral is so important and what sort of treatments will be given at the health facility. (They will need to explain this to the parents of the child.)

<u>Case study 1:</u> Fatima is three months old. This is the second day she has been sick with vomiting and diarrhea. She is restless and irritable. She is very thirsty, but vomits everything up soon after drinking it.

- <u>Classification.</u> <u>General danger sign: Vomits everything</u>. This can be confirmed by giving the child a drink of water to see if it is all vomited back. Complete the assessment and classification of diarrhea. Urgent referral is needed because unless the child gets intravenous fluids, she might get so dehydrated that she will die.

<u>Case study 2:</u> Mahmood is seven months old. He has had a cough for four days. Since yesterday he has had difficult breathing. He is not eating, and now is not breastfeeding. He is not drowsy and has had no convulsions.

- <u>Classification.</u> <u>General danger sign: Child does not drink or breastfeed</u>. This can be confirmed by asking the mother to try breastfeeding him. Ask the mother about a blocked nose, and use a tissue or cloth to clean his nose. See if that helps. Complete the assessment and treatment of cough and difficult breathing. He needs urgent referral because he has a serious disease and will need help with drinking and feeding to avoid dehydration. He may also need injections of antibiotics.

<u>Case study 3:</u> Razia is eighteen months old. She has had fever for four days. This morning she has been very drowsy and has not eaten. Just a short time before coming she had a convulsion.

- <u>Classification.</u> <u>General danger sign: Child is very drowsy and has had a convulsion</u>. Confirm this by asking the mother to describe what happened. Did the child's body and arms stiffen or shake? Was she able to respond at all during the convulsion? Watch the child carefully in case she has another convulsion. Also see how drowsy the child is by seeing if she responds to noises or being disturbed. Complete the assessment and classification of fever. She needs urgent referral for investigation and treatment of a serious disease.

D. Exercise: Discussion of Management.

With the whole group, discuss the following questions about the management of children with danger signs.

- What is the correct management for a child with a danger sign?
  (E*ncourage them to look at the chart.*)

- Why is referral so urgent for danger signs?
  (*Emphasize that there is a severe disease, and that the child is getting no food or drink.)*

- Should the CHWs give any treatment first?
  (*The child needs treatment urgently, but cannot take medicine by mouth. He will need medicine by injection.)*

- Should the mother try to continue breast feeding or giving the child fluids?
  (*Yes. Any fluids that the childe can take will hemp him.)*

General Danger Signs: Reference

Things to Know

Check ALL sick children for general danger signs.

A general danger sign is present if:

- the child is not able to drink or breastfeed
- the child vomits everything
- the child has had convulsions
- the child is lethargic or unconscious.

A child with a general danger sign has a serious problem. Most children with a general danger sign need URGENT referral to the closest hospital or clinic. They may need lifesaving treatment with injectable antibiotics, oxygen or other treatments which may not be available in your clinic. They will probably need intravenous fluids or special feeding. Complete the rest of the assessment immediately.

Things to do

The first box tells you how to check for general danger signs.

CHECK FOR GENERAL DANGER SIGNS

ASK:	**LOOK:**
• Is the child able to drink or breastfeed? • Does the child vomit everything? • Has the child had convulsions?	• See if the child is lethargic or unconscious • See if the child is convulsing now

When you check for general danger signs:

ASK: Is the child able to drink or breastfeed?

A child has the sign "not able to drink or breastfeed" if the child is not able to suck or swallow when offered a drink or breastmilk.

When you ask the mother if the child is able to drink, make sure that she understands the question. If she says that the child is not able to drink or breastfeed, ask her to describe what happens when she offers the child something to drink. For example, is the child able to take fluid into his mouth and swallow it? If you are not sure about the mother's answer, ask her to offer

the child a drink of clean water or breastmilk. Look to see if the child is swallowing the water or breastmilk.

Remember: a child who is breastfed may have difficulty sucking when his nose is blocked. He may have a cold. If the child's nose is blocked, clear it. If the child can breastfeed after his nose is cleared, the child does not have the danger sign, "not able to drink or breastfeed."

ASK: Does the child vomit everything?

A child who is not able to keep anything at all in his stomach has the sign "vomits everything." What goes down comes back up. A child who vomits everything will not be able to hold down food, fluids or oral drugs. A child who vomits several times but can hold down some fluids does not have this general danger sign.

When you ask the question, use words the mother understands. Give her time to answer. If the mother is not sure if the child is vomiting everything, help her to make her answer clear. For example, ask the mother how often the child vomits. Also ask if each time the child swallows food or fluids, does the child vomit? If you are not sure of the mother's answers, ask her to offer the child a drink. See if the child vomits.

ASK: Has the child had convulsions?

During a convulsion, the child's arms and legs stiffen because the muscles are contracting. The child may lose consciousness or not be able to respond to spoken directions.

Ask the mother if the child has had convulsions during this current illness. Use words the mother understands. For example, the mother may know convulsions as "fits" or "spasms."

LOOK: See if the child is lethargic or unconscious.

A lethargic child is not awake and alert when he should be. He is drowsy and does not show interest in what is happening around him. Often the lethargic child does not look at his mother or watch your face when you talk. The child may stare blankly and appear not to notice what is going on around him.

An unconscious child cannot be wakened. He does not respond when he is touched, shaken or spoken to.

Ask the mother if the child seems unusually sleepy or if she cannot wake the child. Look to see if the child wakens when the mother talks or shakes the child or when you clap your hands.

Note: If the child is sleeping and has cough or difficult breathing, count the number of breaths first before you try to wake the child.

If the child has a general danger sign, complete the rest of the assessment immediately. This child has a severe problem. There must be no delay in his treatment and referral.

4. Cough or Difficult Breathing

Objectives

At the end of the session, the participants will be able to:

- Recognize the signs of pneumonia:
  - fast breathing according to a child's age,
  - chest indrawing and
  - stridor at rest.
- Reliably count a child's breathing rate.
- Use the charts to classify a child as having pneumonia, severe pneumonia, or just a cough or cold.
- Use the charts to explain how to treat and manage a child with cough or difficult breathing.

Content

- Fast breathing at different ages
- The signs of severe pneumonia, pneumonia, and a cough or cold
- The treatment and management of severe pneumonia, pneumonia, and a cough or cold

Methods

- Reflect
- Demonstration
- Drill
- Exercises

Materials

- Child Management Charts
- Clocks or watches and Minute timers
- Demonstration Picture Book
- Sufficient weights and strings prepared for all participants

Training Guide

A. Reflect

a. Use these questions to find out which of the signs are known by the participants, and their understanding of the causes of fast breathing, chest indrawing and stridor at rest. Use the discussion to make clear the difference between:

- *coughs and colds caused by viruses that cannot be treated by antibiotics and*
- *pneumonia, which is caused by bacteria which need to be treated with an antibiotic.*

b. Divide the participants into small groups. Ask each group to reflect on the following questions and then share their ideas with the rest of the group. Lead a discussion of these ideas

- What are the signs of pneumonia and severe pneumonia? How do we tell the difference between a cold, pneumonia and severe pneumonia?

a. Why do children have these signs with pneumonia or severe pneumonia?

i. Stiffness of the lungs leads to fast breathing
ii. *As the lungs get worse, the hard work to breath causes chest indrawing.*
iii. *Demonstrate the appearance of chest indrawing from the demonstration picture.*

b. What is the difference between the treatment of a cold and pneumonia? What is the reason for that difference?

i. Pneumonia is caused by bacteria that are killed by antibiotics.
ii. The cold is caused by viruses that are not killed by antibiotics.

c. Discuss with them the local treatments for cold that are safe and effective.

B. Review the charts on Cough or Difficult Breathing

First chart:

- *Ensure that participants can identify the pictures and the meanings of the vector signs (arrows) and the single pointing hand.*

Second chart:

- *Ensure that participants can identify:*
  - *The pictures*
  - *The vector signs (arrows)*
  - *The meaning of the single pointing hand*
  - *The pictures for Follow up and for Days.*

C. Demonstration

a. Demonstrate the use of the charts on Cough and Difficult Breathing with two case studies:

b. For each case, ask:

What is the child's problem?
What signs related to cough or difficult breathing does the child have?
What is the classification of this child's illness? Why?

Case study 1: 18 month boy with 4 days cough. He has fast breathing. There is no chest indrawing or stridor.

- Classification: Pneumonia.

Case study 2: 3 month old girl with 5 days difficult breathing. The breathing rate is fast. There is both chest indrawing and stridor.

- Classification: Severe pneumonia. *(Point out that the breathing rate in severe Pneumonia may be fast, or may not be fast because breathing is such hard work and the baby may be getting tired.)*

E. Exercise: Drill: **Determining fast breathing in children**

To conduct the drill:

a. Review the chart on Fast Breathing that shows the breathing rates for younger and older children.
   - Identify the pictures and symbols showing how old the child is.
   - Identify the numbers and symbols for the number of breaths in a minute

b. Ask one of the participants to tell the group the cut off for fast breathing in a child age 2 months up to 12 months;
   Ask another to tell the group the cut off for fast breathing in a child 12 months up to 5 years.

   (You can remind them that a child who is less than 2 months has an even faster breathing rate. For them the rate for fast breathing is 60. They will look at the charts for children under 2 months later.)

c. Explain the procedures for doing drills:
   - This is not a test.
   - They should wait to be called on
   - Be prepared to answer as quickly as they can.
   - Check the chart rather than try to guess.

d. Start both drills by demonstrating how to answer the first question.

Then call on participants one at a time. If a participant cannot give an answer or gives an incorrect answer, cheerfully go to the next participant and ask if he or she can answer the question.

DRILL: Part 1.

QUESTION	ANSWER
ASK: What is fast breathing in a child who is:	
4 months old	50 breaths per minute or more
18 months old	40 breaths per minute or more
9 months old	50 breaths per minute or more
36 months old	40 breaths per minute or more
6 months old	50 breaths per minute or more
11 months old	50 breaths per minute or more
3 months old	50 breaths per minute or more
12 months old	40 breaths per minute or more
2 months old	50 breaths per minute or more

DRILL: Part 2.

QUESTION		ANSWER
ASK: Does the child have <u>fast breathing</u> if:		
The child is:	***and number of breaths in a minute is:***	
3 months old	52	Yes
2 years old	38	No
6 months old	48	No
2 month old	55	Yes
12 months old	38	No
12 months old	42	Yes
3 years old	37	No
3 months old	45	No
8 months old	54	Yes
18 months old	45	Yes
15 months old	42	Yes
4 months old	45	No
14 months old	45	Yes
4 years old	43	Yes
20 months old	48	Yes
7 months old	48	No
10 months old	38	No
11 months old	45	No
12 months old	45	Yes

F. Exercise: Counting breathing with a watch or timer.

a. *Explain how* to count the number of breaths in one minute:

1. Look for breathing movement anywhere on the child's chest or abdomen. Usually you can see breathing movements even on a child who is dressed. If you cannot see this movement easily, ask the mother to lift the child's shirt. If the child starts to cry, ask the mother to calm the child before you start counting.

2. Use a watch with a second hand or a special minute timer.
   a. Ask another person to measure the minute. EITHER:
      - Watch the second hand. Say "Start" when the second hand passes the 12 the first time. Say "Stop" when the second hand passes the 12 the next time.
      - Hold the timer and say "Start" when he presses the start button. The timer will buzz or ring after a minute.

   b. You look at the child's chest and count the number of breaths, starting when the other person says "Start". Stop when the other person says "Stop" or the timer rings.

   If you are not sure about the number of breaths you counted (for example, if the child was actively moving and it was difficult to watch the chest, or if the child was upset or crying), repeat the count.

b. Divide the participants into groups of three.

c. *Each person needs to decide if he or she will normally be using a watch or timer to count children's breathing. That is what they should practice with.*

d. *In each group of three, they should take turns to:*
   1. Pretend to be a child and breath faster like a child.
   2. Keep time with the watch or timer
   3. Count the breaths of the person pretending to be a child

e. Everyone should take a turn to count the breaths at least once.

f. Ask each group to share any difficulties they had, and how they tried to overcome them.

g. Point out any mistakes that you saw people make, and explain how they could be improved.

G. Exercise: Checking for Fast Breathing using the weight and string method.

(Note: Even for those who plan to count breaths in a minute to decide if a child has fast breathing, it would be useful to do this exercise.)

a. *Hand out a weight and string with the knots already prepared at 35cm and 55cm to all the participants.*

b. *Ask them all to practice allowing the weight to swing when holding the string at the two knots.*

c. *After doing that for a short time, ask them if they have noticed any difference in the speed of the swing when they hold the string at the two knots.*
    a. *Make sure that everyone sees that when the string is longer, the swing is also longer or slower. (It does not matter how high the swing is. It does not matter how heavy the weight is. ONLY how long the string is.)*

d. *Point out that:*
    - Holding the bottom knot (at 35cm), the swing across and back is 50 each minute;
    - Holding the top knot (at 55cm), the swing across and back is 40 each minute;
    - We can use this weight and string to compare the rate of breathing of a child to see if it is faster or slower than the speeds of fast breathing.

e. Divide the group into <u>pairs.</u>

f. Each member of the pair should take a turn to pretend to breathe like a child and to compare the breathing with the weight and string:

    a. The person checking for fast breathing should sit comfortably so he can see the other person breathing.

    b. Hold the string at the upper knot (55cm)

    c. Swing the weight close to the other person's chest so that you can see the weight and the other person's chest at the same time. Decide if the person's breathing is faster than the swings across and back of the weight. If it is faster, the person has fast breathing.

H. Exercise: Case studies using charts.

a. *Divide the participants into pairs.*

b. *Explain that you will read out the details of the case. Each pair should then use the charts to classify the case and decide what treatment and management the child should have.*

   Ask the following questions:

   - What is the child's problem?
   - Does the child have any danger signs?
   - What signs related to cough or difficult breathing does the child have?
   - What is the classification of this child's illness? Why?
   - What is the treatment and management?

c. *Read the case twice.*

d. *After they have had time to make a decision, call on two or three pairs to say what they decided and why. Discuss any disagreements between the groups to correct the answers.*

Case study 1: Aziz is 18 months old. His mother brought him because he has a cough and difficult breathing. Aziz is able to drink. He has not been vomiting. He is not lethargic, and has not had a convulsion. He has had the cough for 6 days. He has 42 breaths in a minute. He has no chest indrawing or stridor.

- Classification. Pneumonia. He has had a cough for 6 days and has fast breathing. He has no signs of severe disease: he has no general danger signs and he has no chest indrawing or stridor. He can be treated at home with Cotrimoxazole, and should be seen in two days if his condition has not got worse.

Case study 2: Farid is 6 months old. His mother says he has had a cough for 2 days. He is still breastfeeding. He has not vomited. He is alert, and has not had a convulsion. He has 42 breaths in a minute. He has no chest indrawing or stridor.

- Classification. Cough or cold. Farid has no signs of severe disease: no general danger signs, chest indrawing or stridor. He does not have fast breathing. His mother should be encouraged to continue breastfeeding to sooth Farid's throat. She should keep his nose clear with a clean cloth. She should bring him back if he gets worse, especially if his breathing gets more difficult or he stops breastfeeding.

Case study 3: Fatima is 9 months old. She has had a cough for 5 days. Her breathing has been getting more difficult. She seems weak and tired, but she can breast feed and drink. Fatima's breathing rate is 55 in a minute. She has chest indrawing.

- Classification. Severe pneumonia. She has a fast breathing rate, and she has chest indrawing. She should be given a first treatment of Cotrimoxazole and referred to the health facility urgently.

I. Making the weight and string for measuring fast breathing.

Materials needed:

a. Weight: A nut about 1 cm across is easy to use for this. (The size of the weight will not affect the speed of the swing.)

b. Ball of string: It should be soft but strong.

c. Measuring tape: Make clear marks at 35 cm and at 55 cm with a pen or marker.

d. Scissors

e. Pen or marker

How to make it:

1. Cut off a meter of string.
2. Tie the nut to one end of the string. Make sure that the knot is secure.
3. Lay the measuring tape flat on a table so that the 35 cm and 55 cm marks can be seen easily.
4. With the middle of the hole of the nut over the end of the measure, lay the string along the measure. Mark the string at the 35 cm mark. (This is easier with two people.)
5. Pick up the string and carefully tie a simple knot just above the 35 cm mark.
6. Repeat the last two steps to make a mark just above 55 cms. (Do not mark the string at the 55 cm mark until after you have made the first knot.)
7. Cut off the extra string above the top knot at 55 cm.
8. Well done! You can now check children for fast breathing.

Cough or Difficult Breathing: Reference

Background

Cough or difficult breathing is usually caused by an infection in the respiratory tract. Infections can occur in any part of the respiratory tract such as the nose, throat, voice-box, air passages or lungs. A child suffers about six to twelve of these infections each year. Serious infections (pneumonia) are the main cause of death of children under 5 years.

Things to Know

A child with cough or difficult breathing may have pneumonia or another severe respiratory infection. Pneumonia is an infection of the lungs. Children with pneumonia may die because they are short of air or because of the poisons caused by the infection.
Pneumonia is commonly caused by bacteria that can be treated by antibiotics. It is important to diagnose pneumonia in children both because it is a serious disease AND because it can be treated.

There are many children who come to the CHW with less serious infections of the nose, throat or airways. Most children with cough or difficult breathing have only a mild infection. For example, a child who has a cold may cough because discharge from the nose drips down the back of the throat. Or, the child may have an infection of the airways called bronchitis. These children are not seriously ill. These infections are usually caused by viruses that cannot be treated with antibiotics. Their families can treat them at home.

Sometimes a child may continue to cough for more than thirty days. This is called a *chronic cough*. It may be a sign of tuberculosis, asthma or whooping cough. These children need to be seen at a clinic to make sure that they get the correct treatment.

Most important: CHWs need to identify the few, very sick children with cough or difficult breathing who need treatment with antibiotics. Fortunately, CHWs can identify almost all cases of pneumonia by checking for these two clinical signs: ***fast breathing*** and ***chest indrawing***.

When children develop pneumonia, their lungs become stiff, and it is more difficult to get air into them. If a child has stiff lungs and is short of air, he breathes faster.

If the pneumonia becomes more severe, the lungs become even stiffer and it is even more difficult to pull air into the lungs. Chest indrawing is a sign of a big effort to draw air into the lungs. Chest indrawing is a sign of severe pneumonia.

Things to Do

1. Assess cough or difficult breathing

(Ask, Look and Listen)

A child with cough or difficult breathing is assessed for:

- How long the child has had cough or difficult breathing
- Fast breathing
- Chest indrawing
- Stridor in a calm child.

For ALL sick children, ask about cough or difficult breathing.

ASK:Does the child have cough or difficult breathing?

"Difficult breathing" is any unusual pattern of breathing. Mothers describe this in different ways. They may say that their child's breathing is "fast" or "noisy" or "interrupted."

If the mother answers NO, look to see if <u>you</u> think the child has cough or difficult breathing. If the child does not have cough or difficult breathing, ask about the next main symptom, diarrhoea. Do not assess the child further for signs related to cough or difficult breathing.

If the mother answers YES, ask the next question.

ASK: For how long?

A child who has had cough or difficult breathing for more than 30 days has a chronic cough. This may be a sign of tuberculosis, asthma, whooping cough or another problem.

LOOK for fast breathing.

There are two ways to check for fast breathing in a child:

1. Count the number of breaths in a minute using a watch or a timer.
2. See if the child's breathing is faster than the swings of a weight on the end of piece of string.

COUNT the breaths in one minute.

When you count a child's breathing, it is important that he child is quiet and calm. If the child is frightened, crying or angry, you will not be able to get an accurate count of the child's breaths. Tell the mother you are going to count her child's breathing. Remind her to keep her child calm. If the child is sleeping, do not wake the child.

To count the number of breaths in one minute:

1. Look for breathing movement anywhere on the child's chest or abdomen. Usually you can see breathing movements even on a child who is dressed. If you cannot see this movement easily, ask the mother to lift the child's shirt. If the child starts to cry, ask the mother to calm the child before you start counting.

2. Use a watch with a second hand or a special minute timer.
   b. Ask another person to measure the minute. EITHER:
      - Watch the second hand. Say "Start" when the second hand passes the 12 the first time. Say "Stop" when the second hand passes the 12 the next time.
      - Hold the timer and say "Start" when he presses the start button. The timer will buzz or ring after a minute.

   b. You look at the child's chest and count the number of breaths, starting when the other person says "Start". Stop when the other person says "Stop" or the timer rings.

   If you are not sure about the number of breaths you counted (for example, if the child was actively moving and it was difficult to watch the chest, or if the child was upset or crying), repeat the count.

The cut-off for fast breathing depends on the child's age. Normal breathing rates are higher in younger children than in older children. For this reason, the cut-off for identifying fast breathing is higher in children 2 months up to 12 months than in children age 12 months up to 5 years.

If the child is:	**The child has fast breathing if you count:**
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.

Note: The child who is exactly 12 months old has fast breathing if you count 40 breaths per minute or more.

WEIGHT AND STRING method for fast breathing.

A weight on the end of a piece of string will always swing from side to side at the same speed. If the string is shorter, the weight will swill faster. If the string is longer it will swing slower. The size of the weight makes no difference in the speed of the swing.

If the string is 35 cm long, the weight will swing across and back 50 times in a minute.

If the string is 55 cm long, the weight will swing across and back 40 times in a minute.

If we hold a weight and string close to a child's chest, we can see if the breathing is faster or slower than the swing of the weight.

Instructions for making the weight and string are at the end of the Training Guide section of this chapter.

To look for fast breathing using the weight and string method:

1. Find out what age the child is.

2. Look for breathing movement anywhere on the child's chest or abdomen. Usually you can see breathing movements even on a child who is dressed. If you cannot see this movement easily, ask the mother to lift the child's shirt. If the child starts to cry, ask the mother to calm the child before you start.

3. If the child is between 2 months and 12 months, hold the string by the knot at 35 cm.
   If the child is more than one year old hold it by the knot at 55 cm.

4. Swing the weight close to the child's chest so that you can see the weight and the child's chest at the same time. Decide if the child's breathing is faster than the swings across and back of the weight. If it is faster, the child has fast breathing.

Before you look for the next two signs -- chest indrawing and stridor -- watch the child to see when the child is breathing IN and when the child is breathing OUT.

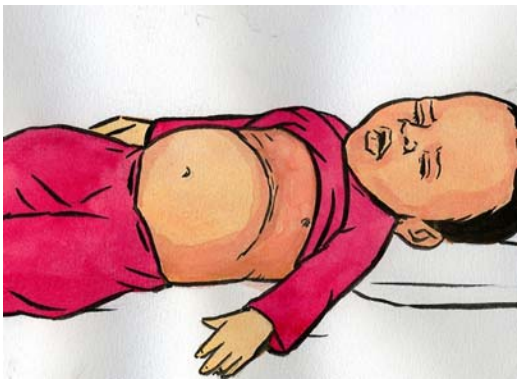
LOOK for chest indrawing.

If you did not lift the child's shirt when you counted the child's breaths, ask the mother to lift it now.

Look for chest indrawing when the child breathes IN. Look at the lower chest wall (lower ribs). The child has chest indrawing if ***the lower chest wall goes IN when the child breathes IN***. Chest indrawing occurs when the child needs to work harder than normal to breathe in. In normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the child breathes IN. When chest indrawing is present, the lower chest wall goes IN when the child breathes IN. The upper chest and the abdomen will still move out.

If you are not sure that chest indrawing is present, look again. If the child's body is bent at the waist, it is hard to see the lower chest wall move. Ask the mother to change the child's position so he is lying flat in her lap. If you still do not see the lower chest wall go IN when the child breathes IN, the child does not have chest indrawing.

For chest indrawing to be present, it must be clearly visible and present all the time. If you only see chest indrawing when the child is crying or feeding, the child does not have chest indrawing.



If only the soft tissue between the ribs goes in when the child breathes in, the child does not have chest indrawing. Chest indrawing is lower chest wall indrawing.

LOOK and LISTEN for stridor

Stridor is a harsh noise made when the child breathes IN. Stridor happens when there is a swelling of the lining of the voice box. This swelling interferes with air entering the lungs. It can be life-threatening when the swelling causes the child's airway to be blocked. A child who has stridor when calm has a dangerous condition.

To look and listen for stridor, look to see when the child breathes IN. Then listen for stridor. Put your ear near the child's mouth because stridor can be difficult to hear.

Sometimes you will hear a wet noise if the nose is blocked. Clear the nose, and listen again. A child who is not very ill may have stridor only when he is crying or upset. Be sure to look and listen for stridor when the child is calm.

You may hear a wheezing noise when the child breathes OUT. This is not stridor.

2. Classify and Manage cough or difficult Breathing

There are three possible classifications for a child with cough or difficult breathing. They are:

- SEVERE PNEUMONIA OR VERY SEVERE DISEASE or
- PNEUMONIA or
- NO PNEUMONIA: COUGH OR COLD

Use the classification table for cough or difficult breathing to decide the correct management.

Whenever you use a classification table, start with the top row. In each classification table, a child receives only <u>one</u> classification. If the child has signs from more than one row, always select the more serious classification.

CLASSIFY & MANAGE COUGH OR DIFFICULT BREATHING

• Any general danger sign OR • Chest indrawing OR • Stridor in a calm child	**SEVERE PNEUMONIA / SEVERE DISEASE** • Give first dose of Cotrimoxazole • Refer URGENTLY to hospital or clinic
• Fast breathing	**PNEUMONIA** • Give Cotrimoxazole for 5 days • Soothe the throat and relive cough • Advise mother when to return immediately • Follow up in 2 days
• No signs of pneumonia • No signs of severe disease	**COUGH OR COLD** • Soothe the throat and releive cough • Advise mother when to return immediately • Follow up in 5 days if not better

2.1 Severe Pneumonia or very severe disease

A child with cough or difficult breathing and with any of the following signs –

- any general danger sign, OR
- chest indrawing OR
- stridor in a calm child

-- is classified as having SEVERE PNEUMONIA OR VERY SEVERE DISEASE.

Chest indrawing develops when the lungs become stiff, and the child needs to work harder than normal to breathe in.

A child with chest indrawing has a higher risk of death from pneumonia than the child who has fast breathing and no chest indrawing. If the child is tired, and if the effort the child needs to expand the stiff lungs is too great, the child's breathing slows down. Therefore, a child with chest indrawing may not have fast breathing. Chest indrawing may be the child's only sign of severe pneumonia.

Treatment
In Afghanistan, bacteria cause most cases of pneumonia. These cases need treatment with Cotrimoxazole.

A child classified as having SEVERE PNEUMONIA OR VERY SEVERE DISEASE is seriously ill.

- He needs urgent referral to a hospital for specialized care.
- Before the child leaves your health post, give the first dose of Cotrimoxazole. The Cotrimoxazole helps prevent severe pneumonia from becoming worse.

2.2 Pneumonia

A child with cough or difficult breathing who has fast breathing and no general danger signs, no chest indrawing and no stridor when calm is classified as having PNEUMONIA.

Treatment

- Treat PNEUMONIA with Cotrimoxazole. Show the mother how to give the Cotrimoxazole.
- Advise her to return for follow-up in 2 days.
- Advise her to return immediately if the child:
    - Not able to drink or breastfeed
    - Becomes sicker

2.3 No Pneumonia: Cough or Cold

A child with cough or difficult breathing who has no general danger signs, no chest indrawing, no stridor when calm and no fast breathing is classified as having NO PNEUMONIA: COUGH OR COLD.

Treatment
A child with NO PNEUMONIA: COUGH OR COLD does not need Cotrimoxazole. The Cotrimoxazole will not relieve the child's symptoms. It will not prevent the cold from developing into pneumonia. But the mother brought her child to the health post because she is concerned about her child's illness. Give the mother advice about good home care.

- Teach her to soothe the throat and relieve the cough with a safe remedy such as warm tea with sugar.
- Advise the mother to wipe the child’s nose clean with a clean cloth. She

should wash her hands before she prepares food for the rest of the family.

- Advise the mother to watch for fast or difficult breathing and to return if either one develops.

A child with a cold normally improves in one to two weeks. However, a child who has a chronic cough (a cough lasting more than 30 days) may have tuberculosis, asthma, whooping cough or another problem.

- Refer the child with a cough for more than 30 days to hospital or a clinic for further assessment.

3. Treat the Child

3.1 Give an oral antibiotic : Cotrimoxazole

Cotrimoxazole : Give two times each day for 5 days		
AGE OF CHILD	**Adult tablets** 80mg trimethoprim + 400mg sulphamethoxazole	**Child tablets** 20mg trimethoprim + 100mg sulphamethoxazole
Birth - 1 month	¼	½ tablet
1 month - 2 months	¼	1 tablet
2 months - 12 months	½ tablet	2 tablets
1 year – 5 years	1 tablet	

Cotrimoxazole should be give two times each day for five days. It is important that the medicine be given for all five days, even if the child seems to be better.

To work out the **correct dose** of Cotrimoxazole:

- Look at the column that lists the type of tablet that is available in your CHW kit.

- Choose the row for the child's age. The correct dose is in this box of the table.

3.2 Soothe the throat, relieve the cough with a safe remedy

To soothe the throat or relieve a cough, use a safe remedy. Such remedies can be home-made, given at a clinic or bought from a pharmacy. It is important that they are safe. Home-made remedies are as effective as the ones bought in a store.

If the child is still only fed breastmilk, do not give other drinks or remedies. Breastmilk is the best soothing remedy for a breastfed child.

The chart recommends safe soothing remedies for children with a sore throat or cough.

Soothe the throat, and relieve the cough with a safe remedy
Safe remedies to recommend: • Breastmilk for exclusively breastfed infants • Warm vegetable or chicken soup • Sweet tea or Warm water • Milk with honey • Khatmi or Zard choba
Harmful remedies to avoid • All cough medicines • All nose drops or ear drops • Rubbing and tightening the chest with plastic • Tariak

Harmful remedies may be used in your area. If so, they have been recorded in the chart. Avoid these remedies. They may make the child sleepy or stop him from coughing up secretions from his lungs. Nose drops with medicine should not be used.

5. Measles

Learning objectives:

At the ends of the session, the participants will be able to:

- Describe how to recognize uncomplicated measles.
- Describe the main complications of measles
- Using the charts, correctly classify a child with measles
- Using the charts, explain the correct treatment of measles with and without complications.
- Explain the importance of treating measles with extra Vitamin A.

Content

- Symptoms and signs of measles, and comparison with other causes of rash.
- Complications of measles.
- Role of Vitamin A in measles.
- Treatment of complicated and uncomplicated cases.

Methods

- Reflect and discuss
- Case studies

Materials

- Child Management Charts
- Demonstration pictures of eye complications

Training Guide

A. Reflect

a. Divide the participants into small discussion groups to discuss some questions and report back to the rest of the group.

b. Use the following questions to discover what they already know:

- What are the symptoms and signs of an uncomplicated case of measles? Has anyone seen a case? Let them describe what they saw.

- What are the main complications of measles? Which ones are dangerous to the child, and why?

c. After hearing their reports, correct and complete the answers to the questions.

B. Exercise: Review the charts.

1. Complicated measles chart.

- *Go through each picture on the chart in turn, and ask a different participant to describe:*
  - *what he sees (Use the Demonstration Pictures to help.)*
  - *what he thinks is the cause*
  - *what he expects will happen if the condition is not managed correctly.*
  - *what is the management*

2. Measles without complications chart

- *Ask someone to describe:*
  - *what is in the chart*
  - *why the management is different from the first chart.*

- *Use the opportunity to summarize the importance of Vitamin A in measles.*

C. Exercise: Case studies.

a. Divide the participants into groups of three.

b. Explain that you will read out the details of the case. Each pair should then use the charts to classify the case and decide what treatment and management the child should have.

Ask the following questions:

a. What is the child's problem?
b. Does the child have any danger signs?

c. What signs related to measles and its complications does the child have?
d. What is the classification of this child's illness? Why?
e. What is the treatment and management?

c. Read the case twice.

d. After they have had time to make a decision, call on two or three pairs to say what they decided and why. Discuss any disagreements between the groups to correct the answers.

Case study 1: Abdul is 15 months old. He developed a fever, runny nose and eyes, and then a rash four days ago. Since yesterday, he has had pus in his eyes, and they are much worse today. He is very irritable and it is difficult to examine the eyes. You cannot see the cornea clearly because of the pus over it.

- Classification: Complicated measles. The start of the illness is typical of measles. Now he has pus in his eyes. He needs Vitamin A, eye ointment in both eyes and a first dose of Cotrimoxazole. You will refer him to the health facility.

Case study 2: Homaira is 11 months old. Four days ago, she developed a runny nose and runny eyes. Since then she got a rash and a fever. She has been miserable and cries a lot. Her eyes are red and runny still, but there is no pus or cloudy cornea. There are no sores in her mouth.

- Classification: Measles without complications. A typical story of measles but she has no complications in her mouth or eyes. She gets Vitamin A, and her mother is asked to bring her back in two days for a check if he has not got worse before then.

Case study 3: Maroof is 9 months old, and has been sick for 5 days. He developed a runny nose and a cough, and for two days he has had difficult breathing. Today he only sucks at the breast for a short time, then gets tired. You have already classified him as severe pneumonia because he has chest indrawing. You also saw the rash when you were examining him. His mother says he has had that for 3 days. His eyes and mouth have no problems.

- Classification: Measles with Severe pneumonia. He will get Cotrimoxazole for his pneumonia. He will also get Vitamin A for the measles. He will be referred urgently because he has chest indrawing and is developing the danger sign of not breast feeding.

MEASLES: Reference

Background

Measles is a very infectious disease. It spreads very easily when many people live in the same house, especially during the winter months when people spend most of the day inside the house. It can be very simply prevented with measles vaccination at 9 months and again at 18 months.

Things to Know

Measles is caused by a virus. It infects the skin, the eyes, the mouth and the throat. It can also affect the lung and the gut. Fever and a rash on all parts of the body are the main signs of measles. Most cases occur in children between 6 months and 2 years of age. Measles also makes it more difficult for the body to fight against other diseases for a few months afterwards. One of the ways it does that is by using up the body's stores of Vitamin A.

Complications of measles occur in one out of every three children with measles. The most important are:

- diarrhoea
- pneumonia
- mouth ulcers
- ear infection and
- severe eye infection, which may lead to blindness.
- Vitamin A deficiency, which may lead to blindness.

Measles contributes to malnutrition because it causes diarrhoea, high fever and mouth ulcers. These problems interfere with feeding. For this reason, it is very important to help the mother to continue to feed her child during measles.

Things to Do

1. LOOK for signs suggesting MEASLES.

Assess a child with fever to see if there are signs suggesting measles. Look for a generalized rash and for one of the following signs: cough, runny nose, or red eyes.

Generalized rash

In measles, a red rash begins behind the ears and on the neck. It spreads to the face. During the next day, the rash spreads to the rest of the body, and to the arms and legs. After 4 to 5 days, the rash starts to fade and the skin may peel.

A measles rash does not have vesicles (blisters) or pustules. The rash does not itch. Do not confuse measles with other common childhood rashes such as chicken pox, scabies or heat rash.

- The chicken pox rash is a rash over the body with vesicles.
- Scabies occurs on the hands, feet, ankles, elbows, buttocks and under the arms. It also itches.
- Heat rash can be a generalized rash with small bumps and vesicles which itch. A child with heat rash is not sick.

You can recognize measles more easily during times when other children in the community have measles.

Cough, Runny Nose, or Red Eyes

To classify a child as having measles, the child with fever must have a generalized rash AND one of the following signs: cough, runny nose, or red eyes. The child has "red eyes" if there is redness in the white part of the eye. In a healthy eye, the white part of the eye is clearly white and not discoloured.

If the child has MEASLES now or within the last 3 months: Look to see if the child has mouth or eye complications.

You should already have checked for other complications of measles such as pneumonia and diarrhoea.

LOOK for mouth ulcers. Are they deep and extensive?

Look inside the child's mouth for mouth ulcers. Ulcers are painful open sores on the inside of the mouth and lips or the tongue. They may be red or have white coating on them. In severe cases, they are deep and extensive. When present, mouth ulcers make it difficult for the child to drink or eat.

Mouth ulcers are different than the small spots called Koplik spots. Koplik spots occur in the mouth inside the cheek during early stages of the measles infection. Koplik spots are small, irregular, bright red spots with a white spot in the center. They do not interfere with drinking or eating. They do not need treatment.

LOOK for pus draining from the eye.

Pus draining from the eye is a sign of conjunctivitis. Conjunctivitis is an infection of the inside surface of the eyelid and the white part of the eye.

If you do not see pus draining from the eye, look for pus on the conjunctiva or on the eyelids.

Often the pus forms a crust when the child is sleeping and seals the eye shut. It can be gently opened with clean hands. Wash your hands after examining the eye of any child with pus draining from the eye.

LOOK for clouding of the cornea.

The cornea (The window of the eye) is usually clear.
Look carefully at the cornea for clouding. The cornea may appear clouded or hazy, such as how a glass of water looks when you add a small amount of milk. The clouding may occur in one or both eyes.

Corneal clouding is a dangerous condition. The corneal clouding may be due to vitamin A deficiency which has been made worse by measles. If the corneal clouding is not treated, the cornea can ulcerate and cause blindness. A child with clouding of the cornea needs urgent treatment with vitamin A.

A child with corneal clouding may keep his eyes tightly shut when exposed to light. The light may cause irritation and pain to the child's eyes. To check the child's eye, wait for the child to open his eye. Or, gently pull down the lower eyelid to look for clouding.

If there is clouding of the cornea, ask the mother how long the clouding has been present. If the mother is certain that clouding has been there for some time, ask if the clouding has already been assessed and treated at the hospital. If it has, you do not need to refer this child again for corneal clouding.

2. Classify and Manage Measles

A child who has the main symptom "fever", “cough” or “diarrhea” as well as measles now (or within the last 3 months) is classified both for one of those symptoms and for measles.

- First you must classify the child's fever, cough or diarrhea.
- Next you classify measles.

If the child has no signs suggesting measles, or has not had measles within the last three months, do not classify measles. Ask about the next main symptom, Ear Problem.

There are two possible classifications of measles:

- MEASLES WITH EYE OR MOUTH COMPLICATIONS
- MEASLES

• Clouding of cornea, OR • Pus coming from the eye OR • Mouth ulcers	**COMPLICATED MEASLES** • Give a first dose of Cotrimoxazole • Give a first dose of Vitamin A • Treat eye complications with tetracycline eye ointment • Treat mouth ulcers with gentian violet • Refer URGENTLY to hospital or clinic
• Measles now or within the past three months	**MEASLES** • Give Vitamin A for two days and see the child again in 2 days

COMPLICATED MEASLES

If the child has any clouding of cornea (window of the eye), pus draining from the eye or mouth ulcers that make it difficult for the child to eat, classify the child as having COMPLICATED MEASLES. This child needs urgent treatment and referral to hospital.

Children with measles may have other serious complications of measles. These include severe pneumonia or severe dehydration. You assess and classify these signs in other parts of the assessment. Their treatments are appropriate for the child with measles.

Treatment

Some complications are due to bacterial infections. Others are due to the measles virus which causes damage to the respiratory and intestinal tracts. Vitamin A deficiency contributes to some of the complications such as corneal ulcer. Any vitamin A deficiency is made worse by the measles infection. Measles complications can lead to severe disease and death.

All children with COMPLICATED MEASLES should receive urgent treatment. The CHW should give the first dose of Cotrimoxazole and a capsule of Vitamin A. Any dehydration should be treated with ORS. The child should then be urgently referred to the nearest clinic or hospital for further assessment.

If there is clouding of the cornea, or pus draining from the eye, apply tetracycline ointment. If it is not treated, corneal clouding can result in blindness. Ask the mother if the clouding has been present for some time. Find out if it was assessed and treated at the hospital or clinic. If it was, you do not need to refer the child again for this eye sign.

MEASLES

A child with measles now or within the last 3 months, but who has no eye or mouth complications is classified as having MEASLES. Give the child vitamin A to help prevent measles complications.

<u>All</u> children with measles should receive vitamin A.

6. Ear Problems

Objectives

At the end of the session, the participants will be able to:

- Explain the differences between acute and chronic ear infections
- Explain the treatments for acute and chronic ear infections and the reasons for the difference.

Content

- Signs of different ear problems
- Differences between acute and chronic infections
- Treatment of acute and chronic infections

Methods

- Discussion

Materials

- Child Management Charts

Training Guide

A. Reflect

a. *Ask the participants if they see a lot of children with ear problems.*

b. *Ask 2-3 of them to describe a recent case or one that they remember for a particular reason.*

c. *If they have not done so already, ask them to describe some cases of chronic ear infections.*

d. *Discuss with them the differences between acute and chronic ear infections:*
   - Chronic is 2 weeks of ear discharge
   - Bacteria in chronic infection are different from those that cause acute infections.
   - Cotrimoxazole is usually effective in acute cases, but does not get rid of the bacteria in the pus of chronic infections.
   - The most important treatment for chronic infection is to remove the pus and keep the ear dry with regular wicking.
   - Parents often need to be encouraged to do the wicking regularly enough and long enough for the ear to heal.

B. Exercise: Case studies:

a. *Divide the participants into small groups. Ask each group to listen carefully to the following cases studies and use the charts to decide on the classification and treatment. They should be ready to share their ideas with the rest of the group.*

Case study 1: Habib is 10 months old. He has had a runny nose and cough for four days. In the last two days he has had a mild fever. He has been rubbing his left ear and crying quite a lot. There is no pus coming from the ear, and there is no painful swelling behind the ear.

- Classification: Acute ear infection. Habib should receive Cotrimoxazole for 5 days and some Paracetamol for pain. His mother should be asked to return in 5 days for a follow up.

Case study 2: Fatima is 18 months old. Last week, she had a cold and cough. Two days ago she complained of pain in her right ear, and pus started coming out today. She no longer has the pain. You can see the pus coming out of her right ear.

- Classification: Acute ear infection. Fatima should receive Cotrimoxazole for 5 days. Her mother should be shown how to wick the ear three times every day. They should come back in five days.

Case study 2 continued: 3 weeks later, Fatima is brought back by her father because the pus is still coming from her ear. Fatima is not upset by the pus, and is otherwise well. The father has been away, and does not know if his wife has been wicking the ear.

- Classification: Chronic ear infection. There is no need for any Cotrimoxazole. The best thing is for you to do a home visit to teach both the father and the mother how to wick Fatima's ear with the materials that she has at home. If that is not possible, the father should be asked to return with his wife to the health post so that they can both learn how to wick the ear and be encouraged to do it at least three times each day.

Ear Problems: Reference

Things to Know

A child with an ear problem may have an ear infection.

Ear infections are commonly a complication of a cold or measles. When a child has an ear infection, pus collects inside the ear, behind the ear drum, and causes pain and often fever. If the infection is not treated, the ear drum may burst, the pus comes out, and the child feels less pain. The fever and other symptoms may stop, but the child suffers from poor hearing because the ear drum has a hole in it. Usually the ear drum heals by itself. At other times the discharge continues, the ear drum does not heal, and the child becomes deaf in that ear.

Sometimes the infection can spread from the ear to the bone behind the ear. Infection can also spread from the ear to the brain. These are severe diseases. They need urgent attention and referral.

Ear infections rarely cause death. However, they cause many days of illness in children. Ear infections are the main cause of deafness in Afghanistan, and deafness causes learning problems in school.

Things to Do

1. Assess Ear Problems

A child with ear problem is assessed for:

- ear pain
- ear discharge and
- if discharge is present, how long the child has had discharge,
- if there is a hot, red, painful swelling behind the ear.

Ask about ear problem in ALL sick children.

ASK: Does the child have an ear problem?

If the mother answers NO, do not assess the child for ear problem.

If the mother answers YES, ask the next question:

ASK: Does the child have ear pain?

Ear pain can mean that the child has an ear infection. If the mother is not sure that the child has ear pain, ***ask if the child has been irritable and rubbing his ear***.

ASK: Is there ear discharge? If yes, for how long?

Ear discharge is also a sign of infection.

When asking about ear discharge, use words the mother understands.

If the child has had ear discharge, ask for how long. Give her time to answer the question. She may need to remember when the discharge started.

You will classify and treat the ear problem depending on how long the ear discharge has been present.

- An ear discharge that has been present for ***2 weeks or more*** is treated as a chronic ear infection.

- An ear discharge that has been present for ***less than 2 weeks*** is treated as an acute ear infection.

You do not need more accurate information about how long the discharge has been present.

LOOK for pus draining from the ear.

Pus draining from the ear is a sign of infection, even if the child no longer has any pain. Look inside the child's ear to see if pus is draining from the ear.

LOOK for a hot, red, swelling behind the ear

A hot, red and painful swelling behind one ear is the sign of Mastoiditis, an infection of the bone. It is serious and needs urgent treatment at a health facility.

2. Classify Ear Problems

There are three classifications for ear problem:

- ACUTE EAR INFECTION
- CHRONIC EAR INFECTION
- MASTOIDITIS
- NO EAR INFECTION

Here is the classification table for ear problem from the *ASSESS & CLASSIFY* chart.

• Pus is seen draining from the ear, and discharge is reported for less than 14 days OR • Ear pain	**ACUTE EAR INFECTION** • Give Cotrimoxazole for 5 days • Give Paracetamol for pain • Dry the ear by wicking • Follow up in 5 days
• Pus is seen draining from the ear, and discharge is reported for 14 days or more after receiving a course of Cotrimoxazole.	**CHRONIC EAR INFECTION** • Dry the ear by wicking. Encourage the mother to do this 3-4 times each day • Follow up in 5 days
• Painful, hot, red swelling behind the ear	**MASTOIDITIS** • Give Cotrimoxazole • Give Paracetamol for pain • Refer
• No ear pain AND No pus seen coming from ear	**NO EAR INFECTION** No additional treatment

Acute Ear Infection

If you see pus draining from the ear and discharge has been present for less than two weeks, or if there is ear pain, classify the child's illness as ACUTE EAR INFECTION.

Treatment
Give Cotrimoxazole for 5 days.
Give Paracetamol to relieve the ear pain (or high fever).
If pus is draining from the ear, dry the ear by wicking.

Chronic Ear Infection

If you see pus draining from the ear and discharge has been present for two weeks or more, classify the child's illness as CHRONIC EAR INFECTION.

Treatment
Most bacteria that cause CHRONIC EAR INFECTION are different from those which cause acute ear infections. For this reason, oral antibiotics are not usually effective against chronic infections. Give a first course of Cotrimoxazole, but do not give repeated courses of antibiotics for a draining ear.

The most important and effective treatment for CHRONIC EAR INFECTION is to keep the ear dry by wicking. Teach the mother how to dry the ear by wicking. Encourage her to do it 3-4 times each day.

Mastoiditis

Mastoiditis is serious. You should start the child on Cotrimoxazole and Paracetamol and refer the child to the health facility urgently.

No Ear Infection

If there is no ear pain and no pus is seen draining from the ear, the child's illness is classified as NO EAR INFECTION. The child needs no additional treatment.

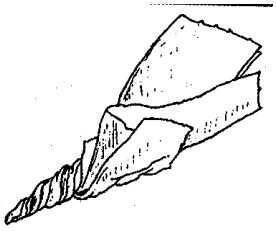
3. Dry the Ear By Wicking

Dry the Ear by Wicking
- Roll clean absorbent cloth or soft strong paper into a wick.
- Place the wick in the child's ear
- Remove the wick when wet
- Replace the wick with a clean one and repeat these steps until the ear is dry.

To teach a mother how to dry the ear by wicking, first **tell her** it is important to keep an infected ear dry to allow it to heal. Then **show** her how to wick her child's ear.

As you wick the child's ear, tell the mother to:

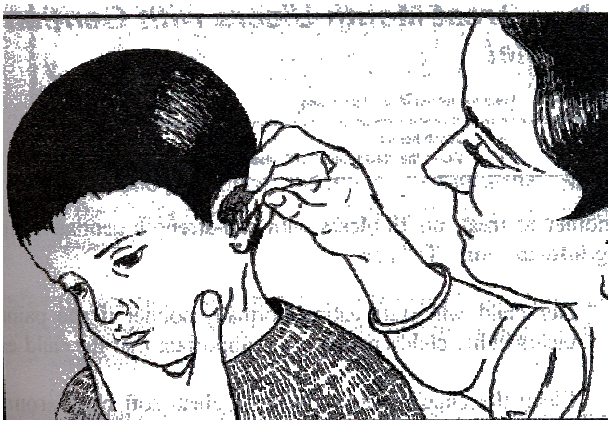
* Use clean, absorbent cotton cloth or soft strong tissue paper for making a wick. Do ***not*** use a cotton-tipped applicator, a stick or flimsy paper that will fall apart in the ear.



* Place the wick in the child's ear until the wick us wet.

* Replace the wet wick with a clean one.

* Repeat these steps until the wick stays dry. Then the ear is dry.



Observe the mother as she practices. Give feedback. When she is finished, give her the following information.

* Wick the ear 3 times daily.

* Use this treatment **for as many days as it takes** until the wick no longer gets wet when put in the ear and no pus drains from the ear.

- Do ***not*** place anything (oil, fluid, or other substance) in the ear between wicking treatments. Do ***not*** allow the child to go swimming. No water should get in the ear.

Ask checking questions, such as:

"What materials will you use to make the wick at home?"

"How many times per day will you dry the ear with a wick?"

"What else will you put in your child's ear?"

If the mother thinks she will have problems wicking the ear, help her solve them.

7. Clinic Practice I.

8. Treat the Child.

Objectives

At the end of the session, the participants will be able to:

- Select the correct dosages of Cotrimoxazole, Paracetamol and Vitamin A for children of different ages and describe how often and for how long they should be taken.
- Explain and demonstrate the principles and practice of teaching mothers how to give medicine to their children.

Content

- Treatment of children with Cotrimoxazole, Paracetamol and Vitamin A.
- The principles and practice of teaching mothers how to give medicine to their children.

Methods

Part 1:

- Discussion
- Chart review
- Drill

Part 2:

- Role play

Materials

- Child Management Charts
- A sufficient supply of Cotrimoxazole and containers/paper for wrapping the tablets for participants to demonstrate how to teach a mother in a role play.

Training Guide

Part 1: Selecting the correct doses of a drug.

A. Introduction

Explain the objectives and the program for the two parts of this session

B. Reflection:

a. *In the large group or small groups, ask the participants to share what may have been some of the challenges they faced in both deciding how much medicine to give to a child and then teaching mothers how to give the medicine.*

b. *Encourage others in the group to make suggestions about how they have overcome some of the challenges.*

C. Exercise: Chart review and Drill

1. **Cotrimoxazole**

a. *Make sure that everyone is looking at the Cotrimoxazole chart.*

b. *Systematically help the participants to identify the meaning of all the pictures and symbols on the chart.*

c. *Drill*

d. *Explain that you are going to read out the classifications and ages of some sick children.*

e. *You will ask the participants in turn to describe what is the correct dose of Cotrimoxazole to be given, using Adult tablets and Child tablets. Then, at what time of the day and for how many days the tablets should be given.*

Cotrimoxazole

Cases	Adult tablets	Child tablets
A child of 2 months has a classification of pneumonia.	1/2	2
A child of 3 years has measles with eye complications	1	(3)
A child of 11 months has an acute infection of the ear.	1/2	2
A child of 7 months has severe pneumonia.	1/2	2
A child of 9 months has measles with no complications.	1/2	2
A child of 1 year 6 months has pneumonia.	1	(3)

b. Paracetamol

a. *Make sure that everyone is looking at the Paracetamol chart.*

b. *Systematically help the participants to identify the meaning of all the pictures and symbols on the chart.*

c. *Drill*

d. *Explain that you are going to read out the classifications and ages of some sick children.*

e. *You will ask the participants in turn to describe what is the correct dose of Paracetamol to be given, using Adult tablets and Child tablets. How often should it be given and for how long? (Continue around the room.)*

Paracetamol

Cases	Child tablets (100)	Adult tablets (500)
A child of 9 months with measles and fever	1	1/4
A child of 2 years with an acute ear infection, pain and fever	1	1/4
A child of 3 years with measles and fever.	2	1/2
A child of 9 months with acute ear infection and fever.	1	1/4

c. **Vitamin A.**

a. *Make sure that everyone is looking at the Vitamin A chart.*

b. *Systematically help the participants to identify the meaning of all the pictures and symbols on the chart.*

c. *Drill*

d. *Explain that you are going to read out the classifications and ages of some sick children.*

e. *You will ask the participants in turn to describe what is the correct dose of Vitamin A to be given. How often should it be given and for how long? (Continue around the room.)*

Vitamin A (200,000 iu)

Cases	**Day 1**	**Day 2**	**After 1 month**
A child of 11 months with complicated measles	2 drops	2 drops	2 drops
A child of 2 years with measles but no complications	1	1	1
A child of 1 year 6 months with measles and mouth ulcers	1	1	1

Part 2: Teaching a mother how to give tablets to her child.

D. Reflect and discuss

a. *Remind the participants of the challenges to teaching mothers that they mentioned at the beginning of the session.*

b. *Discuss with them the principles that help to overcome those challenges:*

- *Give* ***information***
- ***Demonstrate***
- *Let her* ***practice***
- ***Check her understanding***

c. *Now discuss with them a more detailed list of things to do when teaching a mother how to treat her child with a drug that is taken by mouth.*

1. *Select the correct dose of the drug for the child*

2. *Explain to the mother what the medicine is for*

3. *Explain and demonstrate how to measure the dose of drug (Praise her)*

4. *Watch the mother practice measuring the dose herself*

5. *Help the mother give the first dose to the child herself (Praise her)*

6. *Explain when and for how long to give the drug*

7. *Check her understanding*

8. *Measure out and package the tablets she needs*

9. *(If more than one drug, this process should be done separately for each drug. Either the mother or you should put a mark on each package to indicate which is which.)*

E. Exercise: Role play

a. Divide the participants into groups of three.

b. Give each group a supply of Cotrimoxazole tablets for children (120mg) and some pieces of paper for wrapping the tablets for the mother.

c. <u>Explain what they will do:</u>

d. All participants will take turns to play one of the three roles:

1. *The CHW. She will teach the mother how to treat her child at home with Cotrimoxazole.*

2. *The mother. She is young and very nervous because this is the first time her child is sick. She worries about the criticism she will get from her mother-in-law and her husband.*
   - *The child is a 9 month old boy, who has pneumonia, and needs to have Cotrimoxazole.*

3. *The mother-in-law. She is also anxious because this is her first grandson. She wants to be helpful, so sometimes she interrupts the process.*

e. After each participant has had a turn to be the CHW, the others should praise her for what she did well and point out where she could have done something differently or better.

f. At the end of the session:

g. Congratulate everyone on doing well.

h. Ask each group to tell the others what was the one thing they found most difficult to do well. (Everyone should know that this is something that everyone finds difficult to do well, even though it is so important.)

Treat the Child: Reference

1. Select the appropriate medicine and determine the dose and schedule.

Use the *TREAT THE CHILD* chart to select the appropriate drug, and to determine the dose and schedule. There are some points to remember about each oral drug.

1.1 Give Cotrimoxazole

Children with the following classifications need Cotrimoxazole.

- Severe pneumonia or very severe disease
- Pneumonia
- Dysentery
- Complicated measles
- Acute ear infection

Cotrimoxazole : Give two times each day for 5 days

Age of child	Adult tablets 80 + 400	Child tablets 20 + 100
Birth to 1 month	¼	½
1 month to 2 months	¼	1
2 months to 12 months	½	2
1 year to 5 years	1	

Cotrimoxazole should be give two times each day for five days. It is important that the medicine be given for <u>all five days,</u> even if the child seems to be better.

To work out the **correct dose** of Cotrimoxazole:

- Look at the column that lists the type of tablet that is available in your CHW kit.

- Choose the row for the child's age. The correct dose is in this box of the table.

1.2 Give Paracetamol for high fever or ear pain.

Paracetamol lowers a fever and reduces pain.

PARACETAMOL		
AGE	**TABLET (100mg)**	**TABLET (500mg)**
2 months up to 3 years	**1**	**¼**
3 years up to 5 years	**1 1/2**	**½**

If a child has high fever, give one dose of Paracetamol immediately.

If the child has ear pain, give the mother enough Paracetamol for 1 day, that is, 4 doses. Tell her to give one dose every 6 hours or until the ear pain is gone.

1.3 Give Vitamin A for Measles.

Vitamin A capsules are given to children with measles to make sure that the child has enough to fight infections and stay healthy.

Vitamin A (200,000 iu)

Child with Measles	**Day 1**	**Day 2**	**After 1 month**
6-12 months	2 drops	2 drops	2 drops
1-5 years	1 capsule	1 capsule	1 capsule

2. Use good communication skills to teach the mother.

A child who is treated at a health post needs to continue treatment at home. The success of home treatment depends on how well you communicate with the child's mother. She needs to know how to give the treatment. She also needs to understand the importance of the treatment.

Good communication is important when teaching a mother to give treatment at home.

* ***Ask*** questions to find out what the mother is already doing for her child.

* ***Praise*** the mother for what she has done well.

* ***Advise*** her how to treat her child at home.

* ***Check*** the mother's understanding.

These skills are described below.

2.1 Advise the mother how to treat her child at home.

Some advice is simple. For example, you may only need to tell the mother to return with the child for follow-up in 2 days. Other advice requires that you teach the mother **how to do** a task. Teaching how to do a task requires several steps.

Think about how you learned to write, cook or do any other task that involved special skills. You were probably first given instruction. Then you may have watched someone else. Finally you tried doing it yourself.

When you teach a mother how to treat a child, use 3 basic teaching steps:

1. Give ***information***.
2. Show an ***example***.
3. Let her ***practice***.

GIVE INFORMATION: Explain to the mother how to do the task. For example, explain to the mother how to:

- Break a tablet to the correct size
- Crush a tablet in a spoon
- Give a tablet to the child
- Apply eye ointment,

SHOW AN EXAMPLE: Show how to do the task. For example, show the mother:

- Break a tablet to the correct size
- Crush a tablet in a spoon
- Give a tablet to the child
- Apply eye ointment

LET HER PRACTICE: Ask the mother to do the task while you watch. For example, have the mother repeat each of these tasks.

It may be enough to ask the mother to describe how she will do the task at home.

Letting a mother ***practice*** is the most important part of teaching a task. If a mother ***does*** a task while you observe, you will know what she understands and what is difficult. You can then help her do it better. The mother is more likely to remember something that she has ***practiced*** than something she has heard.

WHEN TEACHING THE MOTHER:

- Use words that she understands.
- Use teaching aids that are familiar, such as the kind of spoon she will have at home
- Give feedback when she practices. Praise what was done well and make corrections. Allow more practice, if needed.
- Encourage the mother to ask questions. Answer all questions.

2.2 Check the mother's understanding.

After you teach a mother how to treat her child, you want to be sure that she understands how to give the treatment correctly. Checking questions find out what a mother has learned.

An important communication skill is knowing how to ask good checking questions:

- A checking question must be phrased so that the mother answers more than "yes" or "no".
- Good checking questions require that she describe **why, how** or **when** she will give a treatment.

From her answer you can tell if she has understood you and learned what you taught her about the treatment. If she cannot answer correctly, give more information or clarify your instructions.

For example, you taught a mother how to give an antibiotic. Then you ask:

"Do you know how to give your child his medicine?"

The mother would probably answer "yes" whether she understands or not. She may be embarrassed to say she does not understand. However, if you ask a few good checking questions, such as:

"When will you give your child the medicine?"

"How many tablets will you give each time?"

"For how many days will you give the tablets?"

you are asking the mother to repeat back to you instructions that you have given her. Asking good checking questions helps you make sure that the mother learns and remembers how to treat her child.

The following questions check a mother's understanding. "Good checking questions" require the mother to describe ***how*** she will treat her child. They begin with question words, such as **why**, **what**, **how**, **when**, **how many**, and **how much**. The "poor questions", answered with a "yes" or "no", do not show you how much a mother knows.

After you ask a question, pause. Give the mother a chance to think and then answer. Do ***not*** answer the question for her. Do ***not*** quickly ask a different question.

Asking checking questions requires patience. The mother may know the answer, but she may be slow to speak. She may be surprised that you really expect her to answer. She may fear her answer will be wrong. She may feel shy to talk to an authority figure. Wait for her to answer. Give her encouragement.

If the mother answers incorrectly or says she does not remember, be careful not to make her feel uncomfortable. Teach her to give the treatment again. Give more ***information***, ***examples*** or ***practice*** to make sure she understands. Then ask her good checking questions again.

A mother may understand but may say that she cannot do as you ask. ***She may have a problem or objection***. Common problems are lack of time or resources to give the treatment. A mother may object that her sick child was given an oral drug rather than an injection, or a home remedy rather than a drug.

Help the mother think of possible solutions to her problems and respond to her objections. For example:

If you ask,
"When will you wick your child's ear?"

The mother may answer that she is not at home during the day. She may tell you that she can only treat her child in the morning and in the night.

Ask her if she can identify someone (a grandparent, an older sibling) who will be at home during the day and can give the mid-day treatment. Help her plan how she will teach that person to give the treatment correctly.

If you ask,
"How will you soothe your child's throat at home?"

A mother may answer that she does not like the remedy that you recommended. She expected her child to get an injection or tablets instead.

Convince her of the importance of the safe remedy rather than the drug. Make the explanation clear. She may have to explain the reason for the safe remedy to family members who also expected the child to be treated differently.

WHEN CHECKING THE MOTHER'S UNDERSTANDING:

* Ask questions that require the mother to explain what, how, how much, how many, when, or why. Do ***not*** ask questions that can be answered with just a "yes" or "no".

* Give the mother time to think and then answer.

* Praise the mother for correct answers.

* If she needs it, give more ***information***, ***examples*** *or* ***practice***.

3. Teach the mother to give drugs by mouth at home.

The drugs listed on the chart are given for different reasons, in different doses and on different schedules. However, the way to give each drug is similar.

This section will teach you the basic steps of teaching mothers to give drugs. If a mother learns how to give a drug correctly, then the child will be treated properly. Follow the instructions below for every drug you give to the mother.

3.1 Determine the appropriate drugs and dosage for the child's age.

Use the *MEDICINE CHARTS* to determine the appropriate drug and dosage to give the child.

3.2 Tell the mother the reason for giving the drug to the child, including:

* why you are giving the drug to her child, and

* what problem it is treating.

3.3 Demonstrate how to measure a dose.

Collect a container of the drug. Count out the amount needed for the child. Close the container.

If you are giving the mother **tablets**:

Show the mother the amount to give each time. If needed, show her how to divide a tablet.

If a tablet has to be crushed before it is given to a child, add a few drops of clean water and wait a minute or two. The water will soften the tablet and make it easier to crush.

3.4 Watch the mother practice measuring a dose by herself.

Ask the mother to measure a dose by herself. If the dose is in tablet form and the child cannot swallow a tablet, tell the mother to crush the tablet. Watch her as she practices. Tell her what she has done correctly. If she measured the dose incorrectly, show her again how to measure it.

3.5 Ask the mother to give the first dose to her child.

Explain that if a child is vomiting, give the drug even though the child may vomit it up. Tell the mother to watch the child for 30 minutes. If the child vomits within the 30 minutes (the tablet or syrup may be seen in the vomit), give another dose. If the child is dehydrated and vomiting, wait until the child is rehydrated before giving the dose again.

3.6 Explain carefully how to give the drug.

Tell the mother how much of the drug to give her child. Tell her how many times per day to give the dose. Tell her when to give it (such as early morning, lunch, dinner, before going to bed) and for how many days.

Explain to the mother that even if the child seems better, she should continue to treat the child. This is important because the bacteria may still be present even though the signs of disease are gone.

3.7 ***Check the mother's understanding.***

Ask the mother checking questions, such as:

"How much will you give each time?"
"When will you give it?" "For how many days?"
"How will you prepare this tablet?"
"Which drug will you give 3 times per day?"

If you feel that the mother is likely to have problems when she gives her child the drug(s) at home, offer more ***information***, ***examples*** and ***practice***. A child needs to be treated correctly to get better.

3.8 Carefully count out and package the tablets.

Put the total amount of each drug into its own drug container (an envelope, paper, tube or bottle). Keep drugs clean. Use clean containers.

After you have packaged the drug, give it to the mother. Ask checking questions again to make sure she understands how to treat her child.

3.9 If more than one drug will be given, give the whole explanation for how to give the drug and check for one drug first, then explain the second drug.

Explain to the mother that her child is getting more than one drug because he has more than one illness. Show the mother the different drugs. Explain how to give each drug. If necessary, draw a summary of the drugs and times to give each drug during the day.

3.10 Advise the mother to keep all medicines out of the reach of children. Also tell her to store drugs in a dry and dark place that is free of mice and insects.

9. Clinic Practice II.

10. When to Return to the CHW

Objectives:

At the end of the session, the participants will be able to:

- List the classifications that should return for follow up after 2 days and 5 days and the reasons
- List reasons for immediate return to the CHW.

Content

- Routine follow up of sick children
- Reasons for immediate return to the CHW or facility.

Methods

- Discussion

Materials

- Child Management Charts

Training Guide

A. Exercise: Chart review and discussion

a. Go through the charts and make a list of all the conditions that need follow up after 2 days and those conditions that need follow up after 5 days.

b. Discuss why some conditions need follow up after 2 days

c. Discuss why other conditions need follow up only after 5 days.

d. Go back to the charts and identify those with 2 day follow ups. For each one, discuss what the CHW should be looking for after two days:

- *Signs of improvement*
- *Signs of getting worse.*

Advise the Mother When to Return to the CHW: Reference

EVERY mother who is taking her child home needs to be advised when to return to the health worker. She may need to return:

- for a FOLLOW-UP VISIT in a specific number of days (for example, when it is necessary to check progress on an antibiotic),

- IMMEDIATELY, if signs appear that suggest the illness is getting worse.

It is especially important to teach the mother the signs to return immediately. These signs mean that additional care is needed for serious illness.

Every time you see a child, you should check the Vaccination Card or the Community map. Remind the mother to take the child for the next immunizations.

1. Follow-up Visits

If you have given a parent medicine to treat a child at home, the child needs to be seen again after a certain number of days. For example, pneumonia and acute ear infection require follow-up to ensure that an antibiotic is working. Some other problems, such as fever or pus draining from the eye, require follow-up only if the problem persists.

At the end of the sick child visit, tell the mother when to return for follow-up. Sometimes a child may need follow-up for more than one problem. In such cases, tell the mother the earliest **definite** time to return. Also tell her about any earlier follow-up that may be needed if a problem such as fever persists.

FOLLOW-UP VISIT
Advise the mother to come for follow-up at the earliest time listed for the child's problems.

If the child has:	**Return for follow-up in:**
Pneumonia Malaria, if fever persists Fever – malaria unlikely, if fever persists	2 days
Acute ear infection Chronic ear infection Any other illness, if not improving	5 days

2. When to Return Immediately

Remember that this is an extremely important section of WHEN TO RETURN.

WHEN TO RETURN IMMEDIATELY

Advise the mother to return immediately if the child has any of these signs :	
Any sick child:	• **Not able to drink or breastfeed or** • **Vomit every thing or** • **Unconscious or** • **Convulsion**
If a child has PNEUMONIA return if:	• **Chest In drawing or** • **Stridor**
If the child has DIARRHEA, also return if:	• **Blood in stool** • **Drinking poorly**

When teaching the signs to return immediately, use local terms that the mother can understand. Be sure to check the mother's understanding.

3. Next Well-Child Visit

Always check the child's Vaccination Card or the Community map to see when the child should have his next immunizations.

Remind the mother of the next visit her child needs for immunization **unless** the mother already has a lot to remember and will return soon anyway. For example, if a mother must remember a schedule for giving an antibiotic, home care instruction for another problem, and a follow-up visit in 2 days, do not describe a well-child visit needed one month from now.

11. Referring the Very Sick Child Urgently.

Objectives

At the end of the session, the participants will be able to:

- List the reasons for referring a child urgently to the health center or hospital
- Describe the four steps in successfully referring a very sick child to the hospital or health center.
- Demonstrate how to explain the reasons for referral to the child's mother, address her fears and worries, and help her with practical difficulties.

Content

- The reasons for referral
- Which children should be referred
- Explaining the need for referral and dealing with family fears and problems.

Methods

- Reflect
- Exercise: Role play

Materials

- Child Management Charts

Training Guide

A. Reflect:

Use the following questions as a way to guide a discussion about referring very sick children. Encourage participants to share their experiences of difficulties they have had and how they found solutions.

1. **Difficulties in referral**
    a. Is it getting easier or more difficult to refer sick children to a health facility? Why do you think that is?
        i. Are some types of cases more difficult than others? Why do you think that is?

    b. What are the most common difficulties faced by mothers when you want to refer a very sick child?
        i. Have you found effective ways of dealing with some of the difficulties that you and the mother face?

    c. Do parents sometimes have problems with the health center staff?
        i. Have you found a way to address that problem?

    d. What other difficulties are there for the CHW when trying to refer a very sick child?
        i. Are there suggestions for ways to overcome them?

2. **Which are the children that you need to refer?**
    a. From the children with general danger signs, cough, measles and ear conditions that we have thought about this week, what are the classifications that need to be referred?
        - Encourage them to check the charts

    b. What are the reasons they need referral? What special care do they need? *(Remember: Severe disease needing stronger drugs or extra help like oxygen; Also, often cannot eat or drink, so need injections of drugs and fluids by IV or stomach tube.)*

3. **What are the four things to do to refer successfully?**
    a. *Explain the reason for the referral.*
    b. *Calm fears and help solve practical problems.*
    c. *Write a referral note.*
    d. *Give mother any supplies and instructions she needs for looking after the child on the way.*

4. **If it is not possible to refer a very sick child** because of the weather, roads, lack of transport, or because a senior member of the family says that they cannot go, what do you do for the sick child? Is there anything you would definitely NOT do?

B. Exercise: Role play on persuading a mother to take her child to hospital.

a. Divide the participants into groups of three (Different groups from the previous day.)

b. Participants will take turns to be one of the following:

- *The CHW persuading the parents to take the child to the facility.*
- *The parent of the child.*
- *An observer, who will identify the good things the CHW did and the things that could have been done better.*

c. You will give them a different case for each round of the role play.

d. The groups have 10 minutes for the role play and 5 minutes to discuss the strong and weak points.

e. For each case, call the participants who will play the parent to the front of the room and explain to them the role that they will play

f. Explain the case to everyone and make sure that the participants who will play the role of the CHW understand the case.

Case 1.

"Iqbal is a male child of 18 months. He has had fever for four days. This morning he was not responsive to noise or physical touch, and will not eat or drink. He has had no vomiting or convulsions. He has had no cough or diarrhoea. Iqbal feels hot but does not have fast breathing. This is a low risk malaria area. The CHW diagnoses two general danger signs. She knows that it is very important for Iqbal to stay in hospital and get treatment."

Then explain separately to the participants who will play the mother:

"The mother is frightened because this is her first male child and she is sure that her husband and in-laws will be angry and blame her for Iqbal's sickness and all the money it will cost to go to the hospital. She worries whether the hospital can do anything because her sister's child died there with a similar illness. Her mother-in-law has already said that it would be much better to go to the mullah."

Case 2:

Farzana is 10 months old. She has had cough and difficult breathing for 4 days. Today she is so weak that she does not breast feed or drink from a cup. She has had no vomiting or diarrhea. The CHW sees that Farzana had chest indrawing. She classifies Farzana as Severe Pneumonia with one general danger signs (Does not drink or breast feed).

Explain separately to the participants who will play the mother:

Farzana's mother is willing to take the child to the facility, but says that her husband is away for another two weeks and there is no money in the house to pay for transport.

Case 3:

Habib is 3 years old. He has measles and has had very severe ulcers in his mouth for three days. He is not eating and not drinking very much.

Explain separately to the participants who will play the father:

Habib's younger brother was taken to the facility a few weeks earlier because he had severe diarrhea and vomiting. The parents had been criticized and almost shouted at in front of the other patients waiting there by the midwife. They do not want to go back to the facility, but are worried about Habib.

g. Finish off the session by asking each of the participants what was the most useful new idea about successful referral that they learned from the discussion and role plays.

Referring the Very Sick Child Urgently: Reference

Things to know

1. Very sick children need to be referred to the nearest health center or hospital for the following reasons:
    a. They have extra training and experience to manage very sick children;
    b. They have additional medicines and equipment for severe illnesses;
    c. They can provide IV fluids to children who cannot eat or drink
    d. They can do tests to understand better what is wrong with the child.

2. The children who need URGENT referral to a health facility include:
    a. Children with any GENERAL DANGER SIGN
    b. Children with a classification of SEVERE DISEASE.
        i. At first visit
        ii. At a follow-up visit
    c. Children with Dysentery (They need a stronger drug than Cotrimoxazole)
    d. DOES NOT RESPOND AFTER TWO DAYS of treatment for
        i. pneumonia,
        ii. fever,
        iii. dysentery
        iv. diarrhea with dehydration
    e. Children UNDER TWO MONTHS with :
        i. Possible Serious Bacterial Infection
        ii. Severe infection of the skin or infection around the cord.

Things to do

After you have classified the child's disease and have decided that the child needs to be referred, follow these next steps:

1. **Give the first treatment according to the child's disease classification.**
   For example:
    - Oral drugs like antimalarials, antibiotics or Paracetamol,
    - Oral Rehydration Solution for dehydration
    - Any topical treatment that is necessary.

2. **Do the following <u>four steps to refer the child</u> to a health facility:**

a. Explain to the mother or caretaker the reason for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out the reason why.

Possible reasons are:

- She needs to get permission from her husband or another male member of the family. He will need to accompany her to the health facility.
- She fears what may happen at the health facility. She fears her child may die there.
- She worries about who will take care of her other children and other responsibilities in the home.
- She is worried about how much it will cost to travel to the health facility and pay for the care.

b. Calm the mother's fears and help her solve any problems.

- Send for the husband or male relatives to explain the need to go to the health facility urgently.
- Reassure her that the health facility has doctors, medicines and equipment that can help to cure her child.
- Explain what will happen at the facility and how that will help her child.
- Help the mother arrange for relatives to care for her children while she is away.
- Help to arrange community support for transportation to the health facility.

c. Write a referral note for the mother to take with her to the health facility. Tell her to give it to the health worker there.

Write:

- The name and age of the child.
- The date and time of referral.
- The reason for referral:
    - General danger signs
    - Severe disease
    - No response to treatment
    - Age under two months

- Treatment that you have given.
- Your name.
- The name of the Health Post or Community.

d. Give the mother any supplies and instructions needed to care for her child on the way to the health facility.

- If the health facility is far, give the mother additional supplies of any drug you are using to treat the child, and tell her when to give them during the journey.
- Tell the mother how to keep the child warm during the journey.
- Advise the mother to continue breastfeeding.
- If the child has dehydration or severe dehydration and can drink, give the mother a supply of Oral Rehydration Solution for the child to sip frequently on the way.

3. What to do if it is not possible to refer the child because of weather, the roads or lack of transport, or because the family refuses to take the child:

- Give the child the full course of treatment at home according to the disease classification. For example, Cotrimoxazole for severe pneumonia or ORS for diarrhea with dehydration.
- If possible, see the child at least once each day to see if there is progress and to encourage the mother.
- If the child does not improve at all in two days, and it is possible to travel, try again to persuade the family to take the child to the health facility. If not, continue treatment at home.
- Do NOT get angry with the family or criticize them in front of neighbors. If you think they are refusing to go to the facility for wrong reasons, try to find a senior relative or a member of the Shura who you can persuade to help.

11. Closing the Course

Module 2.

1. Introductory Session

2. Review of Experience with Charts

3. Diarrhea

Learning objectives

At the end of the session, the participants will be able to:

- Describe the signs of dehydration and severe dehydration
- Explain the importance of blood in stools and persistent diarrhea
- Use the charts, correctly classify a child with diarrhea
- Use the charts explain the correct treatment and management of a child with diarrhea
- Explain the importance of Zinc tablets in the treatment of diarrhea

Content

- Signs of dehydration
- Classification of diarrhea
- Treatment of diarrhea, especially the four rules of home management of diarrhea
- The use of Zinc tablets in treating diarrhea

Methods

- Reflect
- Demonstration: use of the charts
- Exercises/Case studies – small groups
- Explanation on Zinc

Materials

- Child Management Charts
- Demonstration Pictures

Part 1: Diarrhea

A. Reflect

a. *Use these questions to find out which of the signs are known by the participants and their understanding of the causes of dehydration. Use the discussion to make clear the difference between the signs of dehydration and the signs of severe dehydration. Also use the discussion to understand the connection between diarrhea and malnutrition in persistent diarrhea.*
b. *Divide the participants into small groups. Ask each group to reflect on the following questions and then share their ideas with the rest of the group. Lead a discussion of these ideas*

1. What are the signs of dehydration and severe dehydration?

2. Why do children have these signs with dehydration and severe dehydration?

3. Why do some children get persistent diarrhea? What is the effect of persistent diarrhea on the child's body?

4. What is the importance of blood in the stools?

B. Review the charts on Diarrhea and Clinical signs

a. *First review the pictures on the four diarrhea charts and make sure that participants understand the meanings.*
   - *Some will be familiar*
   - *Some will be new*

b. *Review the meaning of the vector signs (arrows)*

c. *Review the meaning of TWO pointing hands*

Clinical Signs

d. *Next, review in detail the pictures of clinical signs in the two charts on diarrhea.*
e. *Starting with Diarrhea, ask each participant in turn to describe one of the clinical signs:*
   - *How are they recognized?*
   - *How can you confirm the mother's story?*

(Use the pictures in the Demonstration Charts to illustrate sunken eyes and the slow skin pinch. Make sure to discuss and demonstrate with the participants the best way to time two seconds for the skin pinch.)

C. Chart Demonstration

a. *Demonstrate the use of the charts on Diarrhea, dysentery and persistent diarrhea with two case studies:*
b. *For each case, ask:*

1. What is the child's problem?
2. What signs related to <u>diarrhea</u> does the child have?
3. What signs related to <u>dehydration</u> does the child have?
4. What is the classification of this child's illness? Why?
5. What treatment will you give?

<u>Case study 1</u>: Sediqa has had diarrhea for three days. There was no blood in the stool. The child was not very sleepy or unconscious. She was not irritable or restless. Her eyes were sunken. She was able to drink but was not thirsty. The skin pinch went back immediately.

- <u>Classification</u>: <u>Diarrhea, but no dehydration</u>. There is only one sign of dehydration – Eyes are sunken. She needs extra fluids to replace the fluids lost and Zinc tablets

<u>Case study 2:</u> Iqbal has had diarrhea for 3 days. He does not have blood in the stool. He is restless and irritable. His eyes are sunken. He is not able to drink. A skin pinch goes back very slowly (More than 2 seconds).

- <u>Classification</u>: <u>Severe dehydration</u>. He has three signs of severe dehydration - His eyes are sunken; he is not able to drink; a skin pinch goes back very slowly.

D. Exercise: Case studies using charts.

a. *Divide the participants into pairs.*

b. *Explain that you will read out the details of the case two times. Each pair should then use the charts to classify the case and decide what treatment and management the child should have.*

Ask the following questions:

- What is the child's problem?
- Does the child have any danger signs?
- What signs related to <u>diarrhea</u> does the child have?

- What signs related to dehydration does the child have?
- What is the classification of this child's illness? Why?
- What is the treatment and management?

c. After they have had time to make a decision, call on two or three pairs to say what they decided and why. Discuss any disagreements between the groups to correct the answers.

Case study 3: Ibrahim has had diarrhea for 4 days. There is no blood in the stool. He is not sleepy or unconscious, but he is not drinking or breastfeeding. His eyes are sunken. A skin pinch goes back slowly (Less than 2 seconds.).

- Classification: Severe dehydration. He has two signs of severe dehydration - He is not drinking or breastfeeding; his eyes are sunken. He needs to go to the health facility urgently. Before leaving he needs to start on ORS and Zinc tablets.

Case study 4: Habib is one and half years old. He has had diarrhea for 2 days. His mother says there is no blood in the stool. He behaves normally and is drinking. There is no signs of sunken eyes or delayed skin pinch.

- Classification: Diarrhea, no dehydration. He needs to take Zinc tablets and a drink of ORS or other fluids after every loose stool to replace the fluid lost.

Case study 5: Ali is a year old, and has had diarrhea for four days. He is drinking well and behaves normally. He has sunken eyes and a delayed skin pinch. (About 2 seconds.)

- Classification: Diarrhea and moderate dehydration. He has sunken eyes and a delayed skin pinch, but he is drinking well and behaving normally. He needs ORS and Zinc tablets. He does not need referral.

Part 2: Dysentery and Persistent Diarrhea

A. Exercise: Case study on Dysentery

a. Ask the participants to turn to the chart on dysentery, then to respond to the following case study.

Case study 6: Hedaya has had diarrhea for two days, and there is blood in his stools. He is not irritable. He is drinking eagerly. His eyes are sunken. The skin pinch goes back immediately.

- Classification. He has dysentery with dehydration. He needs Cotrimoxazole, ORS and Zinc tablets, then he needs to be referred to the health facility.

b. Discuss the case with the participants, and cover the following points:

1. *The bacterial cause of dysentery*
2. *It can cause dehydration, and the amount of dehydration needs to be assessed and treated with ORS.*
3. *It damages the gut wall and needs treatment with Zinc.*
4. *The bacteria used to be treated by Cotrimoxazole, but now increasing numbers of the bacteria are resistant to Cotrimoxazole. (Discuss the meaning of drug resistance with them. Explain how it is often the result of many partially-treated infections.)*
5. *Patients with dysentery need referral because the drugs that are effective against Dysentery will only be available at health facilities.*
6. *Patients who cannot travel to the facility for a reason should be given a full five days treatment with Cotrimoxazole because it still has some effect against some Dysentery bacteria.*

B. Exercise: Case study on Persistent Diarrhea

a. Ask the participants to turn to the chart on dysentery, then to respond to the following case study.

Case study 7: Fawzia is one and a half years old. She has had diarrhea for 3 weeks. She has had no blood in her stools. She is irritable throughout the visit, and drinks eagerly. Her eyes are not sunken. The skin pinch goes back immediately.

- Classification: Persistent diarrhea with dehydration. She has had diarrhea for 3 weeks. She is irritable throughout the visit, and drinks eagerly. There are no additional signs of dehydration. She needs treatment with ORS and Zinc. She also needs to have a better diet.

b. Discuss the case with the participants, and cover the following points:

1. What is the most common cause of persistent diarrhea?
   - *Malnutrition*

2. What are the main causes of malnutrition in children of this age?
   - *Poor diet*
   - *Repeated infection, especially attacks of diarrhea*

3. Persistent diarrhea can cause dehydration and should be treated with ORS.

4. Zinc treatment is important because Zinc gets lost in diarrhea, and needs to be replaced.

5. The most important part of the management of persistent diarrhea is a better diet. *(See Caring for a Young Child.)*
   - *A combination of the right types of food*
   - *5-6 smaller meals each day is better than fewer big meals*
   - *Help the child by chopping of mashing the food*
   - *Ask the mother of a healthy child in the village to help the mother to prepare food that the child will like to eat.*

6. If the child does not get better in another two weeks, he should be referred for assessment at the health facility.

C. Explanation: Zinc, a new treatment for diarrhea.

At this point, take a few minutes to explain the use of Zinc tablets as a new treatment for diarrhea.

Important points to include:

Zinc in the diet and the body

- Zinc, like iron and Vitamin A, is an essential part of our diet.
- It is very important for the immune system that fights against infections.
- It is also very important for the repair of the body when it has been damaged by infection or wounds.
- Zinc is found in high protein foods, especially meat. It is also found in beans, lentils and nuts.
- Often, children may not get as much as they should in their diets.

Zinc in the treatment of diarrhea

- During diarrhea, the body loses Zinc in the stools.
- The body needs Zinc to fight against the infection that is causing the diarrhea
- The body needs Zinc to repair the lining of the gut that has been damaged by the infection.
- Giving a tablet of Zinc each day provides enough Zinc for the body to be able to do both of these things.
- Giving a child with diarrhea Zinc tablets every day will:
    - Reduce the amount of diarrhea
    - Stop the diarrhea sooner
- If the Zinc tablets are taken for a full 10 days they will:
    - Reduce the number of attacks of diarrhea over the next 2-3 months.

Ask the participants some questions about what you have told them to ensure that they have understood the importance of Zinc and can explain why it is now used in the treatment of diarrhea.

Mention that Zinc tablets have to be given a special way. You will explain how that is done during the session on treating children.

Diarrhea: Reference

Background

Diarrhea is a very common problem, and most children have several episodes each year. This is because diarrhea can be caused by many different microorganisms. It is common in children, especially those between 6 months and two years of age. The illness usually lasts for one week and gets better without antibiotic treatment. When death occurs, the most common cause is severe dehydration.

Children under the age of 6 months who are exclusively breastfed rarely get diarrhea. Breastmilk has many ways of protecting the baby against diarrhea. But, children who have other fluids or foods in the first 6 months may get diarrhea and become very sick.

Things to Know

Diarrhea is present when a child or adult has **at least three loose and watery stools per day**. Mothers usually know when their children have diarrhea. When diarrhea occurs they may say that the stools smell strong or pass noisily, as well as being loose and watery. The illness usually gets better by itself in less than a week.

The first and most severe complication of diarrhea is dehydration. This is the result of losing a large amount of liquid in watery stools and of not drinking enough milk or other fluids to make up for the loss.

All persons with diarrhea should be given plenty of fluids to replace those being lost in the watery diarrhea. For young children with severe diarrhea, giving fluids is life saving.

The replacement fluid needs to have both water and some salt, like the fluid being lost from the body. Oral rehydration solution, or ORS, has these characteristics and can be prepared at home. Water alone, tea or fruit juice are not effective. Breast milk is also effective and important food for the sick child. But milk alone is not enough to meet the extra fluid needs of a dehydrated child.

All children with diarrhea should be treated with one Zinc tablet every day for ten days. Zinc is a food substance that helps the body to fight infection and repair the gut that is damaged by the infection. When children with diarrhea receive Zinc, the diarrhea becomes less and recovers more quickly.

Remember, too, that a child who is sick may not eat very much and may become malnourished. As soon as the child is drinking, he should be offered some soft food that can be easily eaten.

The diarrhea may continue for over two weeks in one out of every five children. Persistent diarrhea of this sort often causes serious nutrition problems. This is because

the child may not want to eat much, and is not able to take into his body the food that he does eat. Persistent diarrhea may also cause dehydration. Quite often treatment with ORS does not work because the lining of the gut is so damaged. For this reason, the child with persistent diarrhea and dehydration should always be referred to a health facility as soon as possible.

Diarrhea with blood in the stool is called **dysentery**. This diarrhea may also be watery and cause dehydration. This is the one type of diarrhea that you will treat with Antibiotics. However, dysentery now needs to be treated with antibiotics that are only available at the health facilities. All cases of dysentery need to be referred to the health facility.

Things to Do for a Child with Diarrhea

1. ASSESS THE CHILD WITH DIARRHEA

A child with diarrhoea is assessed for:

- how long the child has had diarrhoea
- blood in the stool to determine if the child has dysentery, and for
- signs of dehydration.

Look at the following steps for assessing a child with diarrhoea:

ASK:	**LOOK:**

• For how long?
• Does the child have blood in the stool?
	• The child's general condition. Is the child:
	  o Lethargic or unconscious?
	  o Restless and irritable?
	
	• Look for sunken eyes
	
	• Offer the child fluid. Is the child:
	  o Not able to drink or drinking poorly?
	  o Drinking eagerly, thirsty?
	
	• Pinch the skin of the abdomen. Does it go back again:
	  o Very slowly (longer than 2 seconds)?
	  o Slowly? (Less than 2 seconds)

1.1 Ask about diarrhoea in ALL children:

ASK: Does the child have diarrhoea?

Use words for diarrhoea the mother understands.
If the mother answers YES, or if the mother said earlier that diarrhoea was the reason for coming to the clinic, assess the child for signs of dehydration, persistent diarrhoea and dysentery.

ASK: For how long?

Diarrhoea which lasts ***14 days or more*** is persistent diarrhoea.

Give the mother time to answer the question. She may need time to recall the exact number of days.

ASK: Is there blood in the stool?

Ask the mother if she has seen blood in the stools at any time during this episode of diarrhoea.

1.2 Next, check for signs of *dehydration.*

When a child becomes dehydrated, he is at first restless and irritable. If dehydration continues, the child becomes lethargic or unconscious.

As the child's body loses fluids, the eyes may look sunken. When pinched, the skin will go back slowly or very slowly.

LOOK and FEEL for the following signs:

LOOK at the child's general condition. Is the child lethargic or unconscious? restless and irritable?

When you checked for general danger signs, you checked to see if the child was ***lethargic or unconscious***. If the child is lethargic or unconscious, he has a

general danger sign. Remember to use this general danger sign when you classify the child's diarrhoea.

A child has the sign ***restless and irritable*** if the child is restless and irritable all the time or every time he is touched and handled. If an infant or child is calm when breastfeeding but again restless and irritable when he stops breastfeeding, he has the sign "restless and irritable". Many children are upset just because they are in a strange place. Usually these children can be consoled and calmed. They do not have the sign "restless and irritable".

LOOK for sunken eyes.

The eyes of a child who is dehydrated may look sunken. Decide if you think the eyes are sunken. Then ask the mother if she thinks her child's eyes look unusual. Her opinion helps you confirm that the child's eyes are sunken.

OFFER the child fluid. Is the child not able to drink or drinking poorly? Or is he thirsty and drinking eagerly?

Ask the mother to offer the child some water in a cup or spoon. Watch the child drink.

A child is ***not able to drink*** if he is not able to suck or swallow when offered a drink. A child may not be able to drink because he is lethargic or unconscious.

A child is ***drinking poorly*** if the child is weak and cannot drink without help. He may be able to swallow only if fluid is put in his mouth.

A child has the sign ***drinking eagerly, thirsty*** if it is clear that the child wants to drink. Look to see if the child reaches out for the cup or spoon when you offer him water. When the water is taken away, see if the child is unhappy because he wants to drink more.

If the child takes a drink only with encouragement and does not want to drink more, he does not have the sign "drinking eagerly, thirsty."

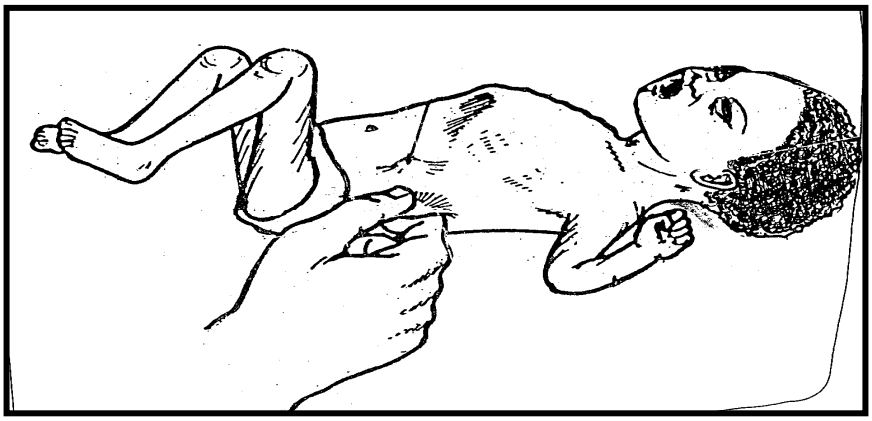
PINCH the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? (Less than 2 seconds)

Ask the mother to hold the child so he is lying flat in her lap.

Find the area on the child's abdomen halfway between the umbilicus and the side of the abdomen. To do the skin pinch, use your thumb and first finger. Do not use your fingertips because this will cause pain. Place your hand so that when you pinch the skin, the fold of skin will be in a line up and down the child's body and not across the child's body. Firmly pick up all of the layers of skin and the tissue under them. Pinch the skin for one second and then release it. When you release the skin, look to see if the skin pinch goes back:

- very slowly (longer than 2 seconds)
- slowly (less than 2 seconds)
- immediately

If the skin stays up for even a brief time after you release it, decide that the skin pinch goes back slowly.



2. CLASSIFY THE CHILD WITH DIARRHEA

2.1 Classify Dehydration

There are three possible classifications of dehydration in a child with diarrhoea:

- SEVERE DEHYDRATION
- SOME DEHYDRATION
- NO DEHYDRATION

Two or more of the following: • Lethargic or unconscious • Not able to drink or drinking poorly • Sunken eyes • Skin pinch goes back very slowly	**SEVERE DEHYDRATION** • Give ORS • Give a Zinc tablet if possible • Refer urgently to the clinic or hospital
Two or more of the following: • Restless and irritable • Thirsty, drinks eagerly • Sunken eyes • Skin pinch goes back slowly	**SOME DEHYDRATION** • Give ORS • Give Zinc tablets for 10 days • Continue breastfeeding and eating • Teach mother to treat at home
• Child is well • Drinks and eats normally • No signs of dehydration	**NO DEHYDRATION** • Give extra fluids • Give Zinc tablets for 10 days • Continue breastfeeding and eating

To classify the child's dehydration, begin with the top row.

SEVERE DEHYDRATION

If **two** or more of the signs in the top row are present, classify the child as having SEVERE DEHYDRATION.

Treatment

Any child with dehydration needs extra fluids. A child classified with SEVERE DEHYDRATION needs fluids quickly. Give the child ORS by cup and spoon as quickly as possible. If the child vomits, make sure that the ORS is not cold, and give the ORS more slowly. Give a Zinc tablet if the child can take it.

The child with severe dehydration usually needs to go to a health facility. The <u>most important</u> factors in deciding if he needs to be referred are the general danger signs:

- Not drinking or breastfeeding

OR

- Vomiting everything

SOME DEHYDRATION

If **two** or more of the signs in the top row are not present, look at the middle row. If two or more of the signs in the middle row are present, classify the child as having SOME DEHYDRATION.

Treatment
A child who has SOME DEHYDRATION needs fluid and food. Treat the child with ORS solution and Zinc tablets for ten days.

In addition to fluid, the child with SOME DEHYDRATION needs food. Breastfed children should continue breastfeeding. Other children should receive their usual milk or some nutritious food after 4 hours of treatment with ORS.

NO DEHYDRATION

A child who does not have two or more signs in either the top or middle row is classified as having NO DEHYDRATION.

Treatment
This child needs extra fluid to prevent dehydration. A child who has NO DEHYDRATION needs home treatment. The 4 rules of home treatment are:

1. Give extra fluid
2. Give Zinc tablets for 10 days
3. Continue feeding
4. When to return.

2.2 Classify Dysentery and Persistent Diarrhoea

After you classify the child's dehydration, classify the child for dysentery and persistent diarrhoea. There are three classifications for dysentery and persistent diarrhoea.

- DYSENTERY
- SEVERE PERSISTENT DIARRHOEA
- PERSISTENT DIARRHOEA

• Blood in the stools	**DYSENTERY** • Give ORS • Give Zinc tablets for 10 days • Refer urgently to the clinic or hospital

• Diarrhea for more than 14 days • Signs of dehydration	**PERSISTENT DIARRHEA, DEHYDRATION** • Give ORS • Give Zinc tablets for 10 days • Counsel mother on good foods to eat.
• Diarrhea for more than 14 days • No signs of dehydration	**PERSISTENT DIARRHEA** • Give extra fluids • Give Zinc tablets for 10 days • Counsel mother on good foods to eat.

DYSENTERY

Classify a child with diarrhoea and blood in the stool as having DYSENTERY.

Treatment
If a child has dysentery, it is probably caused by a special type of germ that needs treatment with Antibiotics. The bacteria that cause Dysentery used to be treated by Cotrimoxazole, but now most of the bacteria need a different kind of antibiotic. These are only available in health facilities, so the patient needs to be referred.

Before referral give the child:

- Cotrimoxazole, the first dose
- Zinc tablet
- ORS after every loose stool or to treat dehydration.
- A referral letter.

PERSISTENT DIARRHOEA

If a child has had diarrhoea for 14 days or more, classify the child's illness as PERSISTENT DIARRHOEA.

Persistent diarrhea is caused most commonly in children by malnutrition. Their main need is an improvement in their diet. If management at home does not work and the diarrhea continues for another two weeks, the child should be referred to a facility for assessment.

Treatment
Children with persistent diarrhea also get dehydrated and need to be treated with ORS.

They need a full course of Zinc for ten days because they loose Zinc in the diarrhea.

A mother with a child with persistent diarrhea need support advice and encouragement from a neighbour who has healthy, well nourished children. The CHW should discuss the diet for the child with his mother and the neighbour who will help and support her.

3. TREAT DEHYDRATION

In diarrhea, both water and salt are lost from the body. If a child is dehydrated, the fluid and salt should be replaced as soon as possible.

The best way to replace the fluid in a child's body is with Oral Rehydration Solution or Wheat Salt Solution. Both of these can be made at home by the mother or father.

3.1 How Much Fluid to Give

Treat diarrhea with dehydration

At first, a lot of fluid needs to be given to correct the dehydration. After that, the amount to give should be enough to replace what is lost in the diarrhea. The amount to give also depends on the size of the child.

The amount of ORS to give in the first 4 hours:

Age	Amount of ORS in first 4 hours
Less than 4 months	1 – 2 glasses
4 – 11 months	2 – 3 glasses
12 – 23 months	3 – 4 glasses
2 – 4 years	4 – 6 glasses

If the child vomits, usually the ORS has been given too quickly, or the fluid may be too cold..

- Wait 5 – 10 minutes and give the ORS more slowly.
- Always give ORS by cup or spoon – never use a feeding bottle.

If the child has drunk enough ORS in the first four hours, the dehydration should be much less. Continue to give the child as much ORS and breast milk and food as she wants. Give more ORS after every watery stool. (See next section for amounts.)

If the child does not get better in five days, or if she shows signs of severe disease, she should be taken to the health center.

Treat diarrhea without dehydration

- The child is well,
- He is not thirsty and drinks normally
- No signs of dehydration.

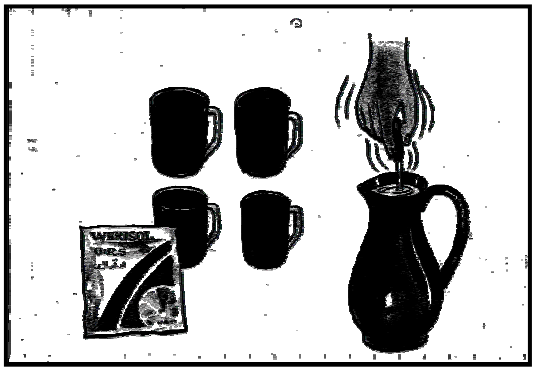
Give extra fluid every time the child passes a watery stool or has vomited.

Under 2 years:	¼ - ½ cup for every watery stool
2 – 10 years	½ - 1 cup for every watery stool
Over 10 years	1 – 2 cups for every watery stool

3.2 Fluids to Treat Dehydration

1. Oral Re-hydration Solution (ORS)

- Measure out 4 cups (1 liter) of drinking water. (See chapter on Safe Water) or weak, unsweetened green tea.
- Stir in one package of ORS powder.

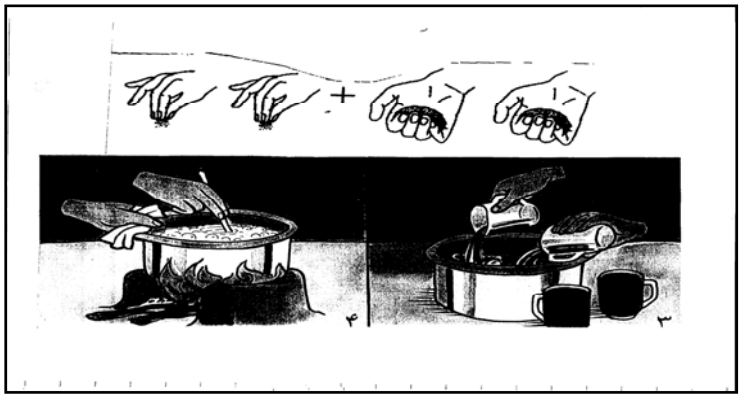


If ORS packages are not available, use Wheat Salt Solution (WSS).

2. *Wheat Salt Solution (WSS).*

- Measure out 4 cups (1 litre) of cold drinking water. (See chapter on Safe Water)
- Add 2 three-finger pinches of salt
- Stir in 2 full fists of wheat flour
- Bring to the boil, then let it cool down.

WSS can be stored for 6 hours in summer and 12 hours in winter.



3. *Other salted drinks.*

- Salted soup
- Salted rice water
- Salted yogurt,

4. TREAT DIARRHEA WITH ZINC TABLETS

Zinc is a food substance that helps the body to fight infection and to repair parts of the body that are damaged by infection. It helps to repair the lining of the gut that is damaged during an attack of diarrhea.

Children with diarrhea who receive Zinc tablets have less diarrhea during the rest of the illness and stop their diarrhea sooner. If the full ten days of treatment is completed, Zinc will also help to prevent attacks of diarrhea in the next three months.

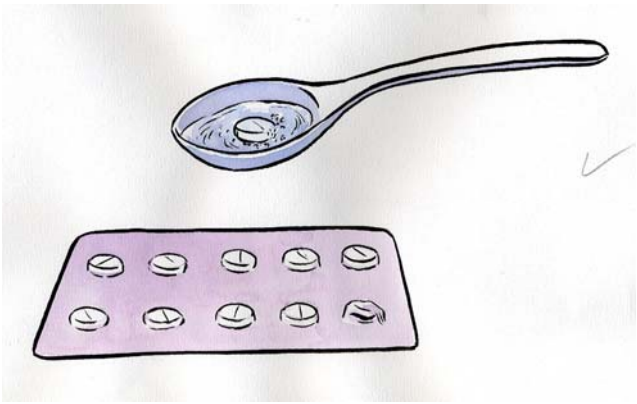
All children more than six months old with diarrhea should be treated with one Zinc tablet (20 mg) every day for ten days

All children less than six months old with diarrhea should be treated with half a Zinc tablet every day for ten days. Break a tablet in half and keep the other half for the next day.

Remember to explain to the mother the importance of taking the Zinc tablets every day for 10 days, not just until the diarrhea stops. The full effect of the Zinc needs 10 days.

Age of child	**Zinc tablets every day for 10 days (20 mg tablet)**
Less than 6 months	Half a tablet
6 months or more	One tablet

Zinc tablets should always be dissolved in clean water or breast milk. Take a teaspoon and fill it with clean water or breast milk. Put the Zinc tablet in the water or milk and allow it to dissolve for a minute. When it has dissolved, give it to the child.



Key Points

- The most frequent and serious complication of diarrhea is dehydration.
- Always give ORS or other fluids to all persons with diarrhea, especially if there are signs of dehydration.
- Give Zinc tablets for ten days to all children with diarrhea.
- If there is severe dehydration, especially if the child is not drinking or is vomiting everything, the child should be taken to the health center.
- Sick babies need extra food after the dehydration has been corrected.

4. Fever

Objectives

At the end of the session the participant will be able to:

- Describe the main causes of fever in children in Afghanistan
- Explain the distribution of malaria and identify his area as a “High Malaria Risk” or “Low Malaria Risk” area.
- Explain and use the management charts for fever, especially those that apply in his area.
- Explain the treatment for malaria.

Content

- Causes of fever
- The distribution of malaria in high and low risk areas
- Use of the clinical charts to manage children with fever.

Methods

- Reflect and discuss
- Review charts
- Case studies

Materials

- Child Management Charts

A. Reflect

a. Ask the participants to list off all the diseases that they have seen cause a fever.
- Which ones are the most common?
- Which ones have the highest fevers?
- When mothers complain of fever in their children, what are the most common causes?

b. Is this an area with malaria? Is it called a <u>High Risk</u> or <u>Low Risk</u> area?
- What are the reasons for it being a high or low risk area?
- If malaria does occur, are there times of the year when there are many cases or few cases?

<u>For a High Risk area</u>

c. How many different kinds of malaria are there in Afghanistan?
- What is the difference between the two?
- What time of the year do they occur?

<u>For a Low Risk area:</u>

d. If this is a low malaria risk area, do cases of malaria ever happen in this area?
- What are the reasons for these cases?

B. Review charts

a. Ask the participants to turn to the charts on <u>fever</u>.

b. Ask them to identify the <u>two charts that apply in their area</u>. (Depending on the malaria risk.)

c. Go through all three charts and make sure that all pictures and symbols are understood, and that the meaning of the chart is understood.

d. *Ask them to turn to the Tables of drugs for <u>Chloroquine</u> and <u>Paracetamol</u>. Make sure that both table are fully understood*

C. Exercise: Case studies

a. Divide the participants into pairs.

b. Explain that you will read out the details of the case. Each pair should then use the charts to classify the case and decide what treatment and management the child should have.

c. Ask the following questions:
- What is the child's problem?
- Assess the child according to the charts on young infants
- What is the classification of this child's illness? Why?
- What is the treatment and management?

d. Read the case twice.

e. After they have had time to make a decision, call on two or three pairs to say what they decided and why. Discuss any disagreements between the groups to correct the answers.

Case study 1: Asif is 2 ½ years old. He lives in a high risk malaria area and it is July. His mother says he has had a fever and runny nose for four days, and he is not getting better. He has had no cough and no measles rash. However, he is breathing at 48 breaths each minute.

- Classification: Fever and Pneumonia. He should take 1 tablet of Cotrimoxazole (Adult) every day for 3 days, and 1 tablet of children's Paracetamol for fever. *(Make sure they understand that Cotrimoxazole is used here for both malaria and pneumonia.)*

Case study 2: Najla lives in a Low Risk Malaria area. She is 5 years old and has had a fever for 3 days. She has also had a sore throat and body pains. She has no rash. She is breathing at 35 each minute.

- Classification: Other disease. She does not need Chloroquine, but she can have 1 ½ tablets of Children's Paracetamol or ½ an adult tablet.

Case study 3a: Laila lives in a High Risk Malaria area. She is 4 years old. She has had a fever for three days. She also has a cold and cough. She has no rash or fast breathing.

- Classification: Cold and Malaria. She should take Chloroquine daily for three days; and 1 ½ children's tablets of Paracetamol for fever.

Fever: Reference

Things to Know

A child with fever may have malaria, measles or another severe disease. Or, a child with fever may have a simple cough or cold or other viral infection.

MALARIA: Malaria is caused by parasites in the blood. They are transmitted through the bite of mosquitoes. Malaria is transmitted in only those parts of Afghanistan where it is warm enough for mosquitoes to breed. In the mountainous parts of the country, it is too cold for mosquitoes to breed. In those parts of the country, it is unusual to see cases of malaria except in people who have travelled to places where malaria is transmitted. It is important to remember that.

There are two types of malaria in Afghanistan. The parasite, *Plasmodium falciparum*, can cause severe disease and kill people. The milder disease, caused by *Plasmodium vivax*, causes fever and weak blood (anemia). This milder form of malaria is the most common type in Afghanistan.

Fever is the main symptom of malaria. It can be present all the time or go away and return at regular intervals. Other signs of falciparum malaria are shivering, sweating and vomiting. A child with malaria may have chronic anaemia (with no fever) as the only sign of illness.

Signs of malaria can overlap with signs of other illnesses. For example:

- A child may have malaria and cough with fast breathing (a sign of pneumonia). This child needs treatment for both malaria and pneumonia. Cotrimoxazole is effective in treating both malaria and pneumonia.

- Children with malaria may also have diarrhoea. They need treatment for malaria (antimalarial) and treatment for dehydration caused by the diarrhoea.

In areas with very high malaria transmission, malaria is a cause of death in children. A case of uncomplicated malaria can develop into severe malaria as soon as 24 hours after the fever first appears. Severe malaria is falciparum malaria with complications such as cerebral malaria or severe anaemia. Cerebral malaria affects the brain and causes unconsciousness or convulsions. The child can die if he does not receive urgent treatment.

Deciding Malaria Risk: To classify and treat children with fever, you must know the malaria risk in your area. The doctor in charge of the health centre or the community health supervisor should tell all CHWs if there is a high risk or a low risk of malaria in the area.

There is a ***high malaria risk*** in areas where more than 5% of the fever cases in children are due to malaria.

There is a ***low malaria risk*** in areas where 5% or less of the fever cases in children are due to malaria.

Malaria risk can vary by season. Mosquitoes need a warm temperature and water to lay their eggs. The water may be the result of rain or of irrigation. There is usually little or no transmission during the winter months. *Plasmodium vivax* is common throughout the summer months. *Pasmodium. falciparum* is most common during August and September.

Find out the risk of malaria for your area. If the risk changes according to season, be sure you know when the malaria risk is high and when the risk is low. If you do not have information telling you that the malaria risk is low in your area, always assume that children under 5 who have fever are at high risk for malaria.

MEASLES is an important cause of fever. There is a rash that covers the body, and there is usually a runny nose, a cough or red eyes. (See section on Measles.)

ACUTE RESPIRATORY INFECTIONS (ARI) are the other group of infections that commonly cause fever in children. They are caused by viruses and usually start in the nose and throat to cause the common cold. They can also go to the lungs and cause pneumonia. Remember that there may not be very much cough with pneumonia OR it may be the fever that is worrying the mother most when she comes to you. If there are no signs of pneumonia they should be treated with Paracetamol and something to soothe the throat if necessary.

Things to Do

1. Assess Fever

You should already have checked for:

- General Danger Signs
- Cough
- Diarrhea

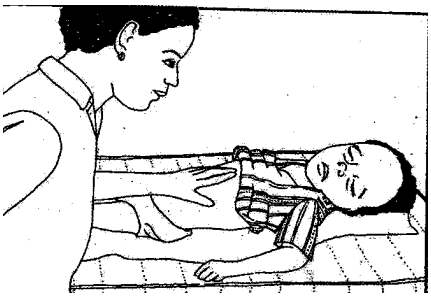
ASK: Does the child have fever?

The child has a history of fever if the child has had any fever with this illness. Use words for "fever" that the mother understands. Make sure the mother understands what fever is. For example, ask the mother if the child's body has felt hot.

Feel the child's stomach or under its arm to see if it feels hot.

If the child does not have fever, ask about the next main symptom, which is ear problem. Do not assess the child for signs related to fever.

If the child has had a fever or feels hot, assess the child for additional signs related to fever. Assess the child for fever if the child has a history of fever with this illness, even if he does not feel hot now.



LOOK for rapid breathing: the sign for PNEUMONIA.

If you have not already classified the child as pneumonia because of a cough and fast breathing, you must count the breaths the child takes in one minute now. The child must be calm and quiet when you look and listen to his breathing. Check on the child's age so that you know how many breaths each minute is fast breathing for this child.

LOOK for signs suggesting MEASLES.

Assess a child with fever to see if there are signs suggesting measles. Look for a generalized rash and for one of the following signs: cough, runny nose, or red eyes.

If there are signs of measles, see section on Measles.

LOOK for runny nose.

A runny nose in a child with fever may mean that the child has a common cold.

If the child has a runny nose, ask the mother if the child has had a runny nose only with this illness. If she is not sure, ask questions to find out if it is an acute or chronic runny nose.

When malaria risk is low, a child with fever and a runny nose does not need an antimalarial. This child's fever is probably due to the common cold.

2. Classify and Manage Fever

2.1 Fever with Fast Breathing (High or Low Malaria Risk)

If the child with fever has fast breathing, classify him as FEVER AND PNEUMONIA.

Treatment

If the child also has fever and fast breathing, and you have classified the child with PNEUMONIA, the child may have both malaria AND pneumonia.

- Give the child Cotrimoxazole for 5 days. It is an effective treatment for both malaria and pneumonia.
- Give Paracetamol to a child with high fever.

CLASSIFY AND MANAGE FEVER (High or low malaria risk)

• Fever with fast breathing	**FEVER WITH PNEUMONIA** • Give Cotrimoxazole for 5 days • Give one dose of Paracetamol for fever • Soothe the throat and relieve cough • Advise mother when to come immediately • Follow up in 2 days

2.2 High Malaria Risk

If the risk of malaria is high in your community, use the High Malaria Risk classification table.

In a place with a high malaria risk, all children with a fever should be treated for malaria.

If the child does not have fast breathing, but the child has a fever (by history or feels hot) in a high malaria risk area, classify the child as having MALARIA. In a high malaria risk area, even if there are signs of other infections present, malaria may ALSO be present.

Treatment

Treat a child classified as having MALARIA with Chloroquine.

- Give Chloroquine for 3 days
- Give Paracetamol to a child with high fever.

If other diseases are present, give treatment for their symptoms.

Most viral infections last less than a week. A fever that persists every day for more than 7 days may be a sign of typhoid fever or other severe disease. If the child's fever has persisted every day for more than 7 days, refer the child for additional assessment.

CLASSIFY AND MANAGE FEVER (HIGH malaria risk)

• Runny nose or cough PRESENT OR • Measles PRESENT OR • Other causes of fever PRESENT	**MALARIA AND OTHER DISEASE** • Give oral antimalarials • Give one dose of Paracetamol for high fever • Give treatment for other symptoms • Advise mother when to return immediately • Follow-up in 2 days if fever continues
• NO runny nose or cough and • NO measles and • NO sore throat and • No other cause of fever	**MALARIA** • Give oral antimalarials • Give one dose of Paracetamol for high fever • Advise mother when to return immediately • Follow-up in 2 days if fever continues

2.3 For Low Malaria Risk Only

If the risk of malaria is low in your community, use the Low Malaria Risk classification table.

In some low malaria risk areas, there may be families who travel to work in areas where there is a high malaria risk. If the mother tells you she has travelled with the child to an area where you know there is a high malaria risk, use the High Malaria Classify chart.

CLASSIFY AND MANAGE FEVER (LOW malaria risk)

• Runny nose or cough PRESENT OR • Measles PRESENT OR • Other causes of fever PRESENT	**FEVER – MALARIA UNLIKELY** • Give one dose of Paracetamol for high fever • Give treatment for other symptoms • Advise mother when to return immediately • Follow-up in 2 days if fever continues
• NO runny nose or cough and • NO measles and • NO sore throat and • No other cause of fever	**MALARIA** • Give oral antimalarials • Give one dose of Paracetamol for high fever • Advise mother when to return immediately • Follow-up in 2 days if fever continues

When the risk of malaria is low, the chance that a child's fever is due to malaria is low. There is an even lower chance of malaria if the child has signs of another infection that can cause fever. For example, the child's fever may be due to a common cold (suggested by the runny nose), measles, or another obvious cause such as skin infection, an abscess or ear infection.

When signs of another infection are not present, classify and treat the illness as MALARIA even though the malaria risk is low.

Treatment

Treat a child classified as having MALARIA with Chloroquine.

- Give Chloroquine for 3 days
- Give Paracetamol to a child with high fever.

Most viral infections last less than a week. A fever that persists every day for more than 7 days may be a sign of typhoid fever or other severe disease. If the child's fever has persisted every day for more than 7 days, refer the child for additional assessment.

3. Treating Malaria

When malaria is suspected and uncomplicated, it is treated with Chloroquine, once a day, for three days.

The mother should watch the child carefully for 30 minutes after giving Chloroquine. If the child vomits within 30 minutes, the mother should give that dose of Chloroquine again, and get extra tablets from the CHW.

Explain to anyone taking Chloroquine that itching is sometimes a side-effect. This may be uncomfortable, but it is not dangerous.

Age (years)	Chloroquine 150mg base
Under 1	**1/2**
1 – 2	**1**
3 – 4	**1 1/2**
5 – 11	**2 1/2**
12 – 13	**3**
Adult	**4**

Give Paracetamol to a child with high fever. Give only every 6 hours, or four times in a day.

PARACETAMOL		
AGE	**TABLET (100mg)**	**TABLET (500mg)**
2 months up to 3 years	**1**	**1/4**
3 years up to 5 years	**2**	**1/2**

5. Clinic Practice I.

6. Treat the Child: Managing Diarrhea

Objectives

At the end of the session, the participants will be able to:

- Select the correct dosages of Zinc tablets for children of different ages and describe how often and for how long they should be taken.
- Explain to a mother how much of a Zinc tablet to take, when and for how long, and teach her how to give the tablet to the child.
- Work out how much ORS a dehydrated child should receive and teach the mother how to prepare and give it.

Content

- Treatment of children with Zinc tablets.
- The management of dehydration with ORS.

Methods

- Review of drug treatment and ORS charts
- Demonstration of use of Zinc tablets
- Role plays

Materials

- Child Management Charts
- A sufficient supply of Zinc tablets and containers/paper for wrapping the tablets, spoons for dispersing the Zinc tablets, ORS sachet, water, a drinking glass, and a bowl for making ORS for participants to demonstrate how to teach a mother in a role play.

A. Exercise: Selecting the correct doses of Zinc and amounts of ORS.

A1. Introduction

Explain the objectives and the program for this session

A2. Exercise: Chart review

Zinc tablets and ORS

f. *Make sure that everyone is looking first at the Zinc char and then at the two ORS charts.*

g. *Systematically help the participants to identify the meaning of all the pictures and symbols on the charts and explain how the charts work. In particular, make sure they understand the importance of the different amounts of Zinc or ORS given to children of different ages.*

A3. Exercise: Drill

a. *Explain that you are going to read out the classifications and ages of some sick children.*

b. *For <u>each</u> case ask 2-3 of the participants in turn to describe what is the correct dose of Zinc to be given, and the amount of ORS to be given in the first 4 hours.*

Cases	**Zinc tablets**	**Glasses of ORS in first 4 hours**
A child of 3 months has a classification of diarrhea and dehydration.	1/2	1
A child of 2 years has diarrhea with dehydration	1	4
A child of 14 months has diarrhea but NO dehydration	1	(offer ORS after each loose stool)
A child of 9 months has diarrhea and dehydration	1	2

B. Exercise: Dissolving Zinc tablets.

1. Demonstration.

a. Start the demonstration by explaining that Zinc tablets need to be dispersed / dissolved in water or some breast milk in a small spoon. You will first demonstrate this and then the participants will all do it and taste the Zinc for themselves.

b. The whole group will be too big to see the demonstration at once. Ask half the group to gather round you at the table. Make sure there is plenty light and that they can all see. Demonstrate dissolving the tablet in some water in the spoon, describing what is happening as you do it.

c. Ask the other half of the class to come around and repeat the demonstration.

d. Give a Zinc tablet, spoon and some water to all the participants and let them dissolve the tablets and then take the Zinc themselves.

e. Ask the participants what they think of the taste.

C. Exercise: Teaching a mother how to manage her child with diarrhea.

C1. Reflect and discuss

d. *Ask the participants if they remember the principles of teaching a mother how to treat her child at home.*

- *Give* ***information***
- ***Demonstrate***
- *Let her* ***practice***
- *Check her* ***understanding***

e. *Now remind them of the more detailed list of things to do when teaching a mother how to treat her child.*

1. Select the correct dose of the drug for the child

2. Explain to the mother what the medicine is for

3. Explain and demonstrate how to measure the dose of drug (Praise her)

4. Watch the mother practice measuring the dose herself

5. Help the mother give the first dose to the child herself (Praise her)

6. Explain when and for how long to give the drug

7. Check her understanding

8. Measure out and package the tablets she needs

9. (If more than one drug, this process should be done separately for each drug. Either the mother or you should put a mark on each package to indicate which is which.)

C2. Exercise: Role play

i. Divide the participants into pairs.

j. Give each group a supply of:
- *Zinc tablets for children*
- *some pieces of paper for wrapping the tablets for the mother.*
- *ORS sachet, water, a bowl and a glass for making ORS.*

k. <u>Explain what they will do:</u>

l. All participants will take turns to be the CHW, explaining the treatment. The others will be the mothers. After the first round of role plays, they will change partners, and the second group will do the role play.

m. After each participant has had a turn to be the CHW, the others should praise them for what they did well and point out where they could have done something differently or better.

n. <u>At the end of the session</u>:

o. Congratulate everyone on doing well.

p. Ask each group to tell the others what was the one thing they found most difficult to do well. (Everyone should know that this is something that <u>everyone</u> finds difficult to do well, even though it is so important.)

<u>Role play case 1:</u> This is a 5 month old girl with diarrhea and moderate dehydration.

<u>Role play case 2:</u> This is a 2 year old boy with diarrhea and moderate dehydration.

7. Counselling the Mother

8. Clinic Practice II.

9. Care of the Newborn

Objectives

At the end of the session the participants will be able to:

- Explain the main dangers for newborns in the first two weeks of life.
- Explain the best ways to keep a newborn warm in the first hours and days of life.
- Explain how to avoid a baby getting infections during delivery, cord care and the first weeks of life.
- Explain the special care of small babies at birth
- Using the Child Management Charts, explain the routine of home visits during the first week of life and the importance of each activity.

Content

- Keeping newborn babies warm
- Good cord care
- The importance of early and exclusive breast feeding, and how to do it successfully
- Routine home visits for newborn care in the first week of life

Methods

- Discussion
- Review of charts

Materials

- Child Management Charts

A. Discussion of Newborn Charts

a. Ask the participants to find the two charts on Newborn Care.

The new Newborn Care program for CHWs

b. Explain that these charts describe a program of three visits in the first week of life that is a new program for CHWs. To find out the answer to the question "Why has this been introduced?", we have to ask the more important question: "Why is the first week of life so important?"

c. Ask for their ideas about why the first week of life is so important.

The Importance of the first week or two of life.

d. Use the discussion to introduce the 2/3 rule of child mortality, and the very high death rate in the first week.

e. Ask them about the main causes of death in the newborn period. Make sure that they understand the basic facts of these.

- Difficulty in starting to breath after birth (Asphyxia), usually because of a difficult delivery.
    - Needs someone at delivery to help child start breathing

- Complications of being born too soon or too small
    - Get cold very easily
    - Need to breast feed frequently because they get tired easily and have small stomachs.
    - Get breathing difficulties

- Infections
    - From birth canal
    - Poor cord cutting
    - Poor hygiene after birth.

f. Use the Newborn Care Charts to identify and explain the ways in which newborns can be kept healthy.

The Newborn Care Program

g. Discuss each picture and what is written there to make sure that the actions are all well understood.
    - *Ask participants about local practices that are different and discuss whether they are good or bad.*
    - *How can we persuade people to change bad practices?*

Day 1:

a. Keeping the baby warm
    i. Delay washing: after 6 hours if possible. Best is next day.

b. Keep the cord clean and dry
    i. The safe way to cut the cord
    ii. It should be about the length of an index finger. If it is too short, it is easier for infection to reach the abdominal wall.
    iii. Discuss common practices

c. Breast feed immediately after birth and every two hours
    i. Benefits of suckling as soon as possible after birth
    ii. Importance of colostrum (*fela*)

d. Check the baby's position when breast feeding

e. Vitamin A to the mother

f. Warn mother about danger signs

Days 3 and 7:

h. *Explain that this is the period when infections are most commonly found in newborn babies.*
    a. Keep the baby warm
        i. Hat as well as clothes

    b. Keep cord clean.
        i. Encourage family not to put anything on the cord.
        ii. When should it normally fall off (5-7 days)

    c. Breast feeding. Check the position.
        i. *Discuss the correct position for good suckling*

    d. Look for signs of infection.
        i. *(We will discuss this in the next session*)

    e. Remind mother again about danger signs.

Babies that are born too soon or too small

i. How can we best help mothers to look after babies that are born too soon or too small?
    a. Keeping them warm
    b. Feeding them frequently

Implementing the Newborn Care Program

j. *Discuss how easy or difficult it will be to implement this program*

    a. *How easy will it be to visit mothers and their newborns on the first day?*
        i. *Will families welcome or resist the visits?*
        ii. *How will you find out about the new birth?*
        iii. *How will you persuade families that it is important?*

    b. *Finally, what do they think will be the main benefits of the program?*

Care of the Newborn

Background

The four weeks after a baby is born are called the newborn period. It is a time when the baby needs special care. Especially for the mother of a firstborn, it is a time for learning all the new skills of caring for a baby. The newborn baby begins to grow, but is still weak. Many babies become sick and may die during this time. The danger of dying is greatest among the youngest children:

- Two out of three babies that die in the first year of life will die in the first four weeks.
- Two out of three babies that die in the first four weeks will die in the first week.
- Two out of three babies that die in the first week will die in the first day after birth.

There are three main causes of death in newborns:

- Failure to breath properly after birth because of a difficult or complicated delivery.
- Complications of being born too soon and too small.
- Infections.

Because of the dangers on the first day and during the first week, the CHW should visit the newborn baby and her mother on the first day and again on days three and seven. She can encourage the mother in how to care for the baby and can recognize and manage any sickness early.

Things to Know

1. Delivering a healthy baby.

1.1 Antenatal Care

To have a healthy baby at birth, a mother needs to have a healthy pregnancy and antenatal care. Important things for the health of the baby include:

- A healthy diet for the mother
- Rest and avoiding heavy work
- Iron and folic acid tablets for the mother to make the blood of both the mother and the baby strong.
- Tetanus toxoid injections to avoid tetanus in the newborn.

1.2 Safe delivery

The safest place to deliver a baby is at a health facility or with a doctor or midwife. They are better able to prevent and manage any complications. Families should be encouraged to take their pregnant women to a facility for a safe delivery if one is near enough to their home.

1.3 Prevention of infection

If the delivery is to be at home, the most important thing that the *daia* and the family can do for the baby is to prevent infection.

Babies can get serious infections during childbirth because of infection in the vagina. There are two common causes for this:

- the labor is difficult and too long.
- from the mother or the *daia* trying to assess progress of the delivery by examining the vagina with fingers that are not clean.

The cord is a place where serious infection can occur. The three most common causes for infection of the cord are:

- Hands have not been washed before handling the cord,
- The razor blade or scissors were not cleaned or boiled in water,
- The cord was cut against a shoe or another dirty object.

A common traditional belief is that it is the liquid and blood from the mother's vagina that are "dirty". That is the reason that the baby is washed soon after delivery and the *daia* and others wash their hands after the delivery. In fact, dangerous infections usually come from the dirt that is outside the mother's body, most commonly on people's hands. That is why it is most important for the *daia* and any other helpers to wash their hands before the actual delivery and again before caring for the baby after delivery.

2. Care of a New Baby

2.1 Keep the baby warm

The most important thing to do for a newborn baby is to keep it warm. A newborn baby has not learned to control its body temperature and easily and very quickly becomes cold. That happens especially if the baby is wet.

After the cord has been tied and cut, the best thing to do is to:

- Dry the baby with a soft warm towel or cloth.
- Place the baby's naked body on the mother's abdomen or chest and cover them both with a blanket. Make sure that the baby's head is covered.

Putting the baby next to the mother's body in this way helps in three ways:

- The baby is kept at the correct temperature.
- It helps to develop the loving attachment between the mother and her baby.
- It helps with the start of breast feeding.

After the placenta has been delivered and the mother is ready to have a wash, clothes can then be put on the baby. Always cover a newborn baby with a blanket and make sure its head is covered. A baby can lose a lot of heat from its head.

If the baby has been dried well after birth, there is no need to bathe a baby quickly. Bathing will only make it cold. It is good to wait until at least 6 hours after birth before bathing the baby. The best way is to wait until the next day.

2.2 Breast feed

Put the baby to the mother's breast within the first hour after the baby has been born. The mother's first milk, the colostrum (*fela*), is thicker and more yellow than the normal milk that will come later. It is very good for the baby. It has a lot of things that help to protect the baby from infections. The mother's milk is all the baby needs. There is no need to give the baby honey or other sweet things. Giving those sorts of extra things increases the danger of infection.

Babies need to feed every two hours. Babies that are born too soon and are smaller than normal may need to feed more often. Their stomachs are small and they get tired easily.

Early breast feeding also helps the mother because it helps the uterus to contract and stop any bleeding after delivery.

2.3 Care of the cord

Keep the cord stump on the baby clean and dry. It will turn black and fall off after five to seven days. There is no need to cover the cord. If it is covered, make sure that only a clean dressing or cloth is used. The cord should not be covered with a dirty cloth. Ashes, mixtures of herbs, kohl, lipstick or other things should not be applied to the cord. They only increase the danger of a serious infection. Many children die because cord infections spread to the rest of the body.

2.4 Care of the skin

Babies should not be bathed on the first day of life because they may become cold. After birth, they should be wiped dry and clean with a warm towel or cloth. After the second day, the skin should be kept clean by being wiped with warm water and then with a clean dry cloth. The baby should not be bathed in a bowl of water until after the umbilical cord stump has completely healed.

At birth, a cheesy substance sometimes covers the baby's skin. It helps to protect the skin. It should not be removed when the baby is dried after birth. If the cheesy substance becomes dry, it can be cleaned off after one or two days with a small amount of oil to prevent irritation of the skin.

3. Mild problems in the newborn

3.1 Yellow color (Jaundice)

After two days, the skin and eyes of some infants become slightly yellow. This is called jaundice. It is usually not a serious condition, and gets better without special treatment. It is not caused by the food that the mother eats making the breastmilk bad.

- Let the baby breast feed plenty
- The mother should continue eating a full diet.
- Reassure the mother that this is usually normal.

If jaundice is present at birth, if it is a dark yellow, or if the baby becomes sleepy and uninterested in suckling on the second or third day, there is a more serious cause. The baby should be referred to a hospital.

3.2 Eyes

If a sticky discharge develops or the eyes become red, they should be treated with antibiotic ointment three times a day for five days.

3.3 Head

The top of the baby's head may be swollen for a few days because it was squeezed in the birth canal. No treatment is needed.

3.4 Breast swelling

Mild breast swelling is common in newborn infants and not abnormal. The mother should be advised not to squeeze the baby's breasts to discharge breast milk.

3.5 Vaginal discharge

Some newborn girls have slight pink vaginal secretions for a few days. This is not abnormal and does not require any treatment.

4. Danger Signs in a Newborn Baby

Young babies can be sick with different problems and can become very sick very quickly. Mothers should be aware that they should call for the CHW to see the baby if any of the following danger signs appears.

- The baby stops sucking or sucks very weakly
- The baby is very lethargic
- Breathing is fast or difficult
- Pus from the cord and red skin on the belly around the cord,
- The baby has convulsions
- Diarrhea,
- Fever or feeling very cold

Most severe disease in newborns happens in the first and second weeks of life. CHWs are asked to visit the mother and newborn on the first, third and seventh days in order to look for any signs of severe disease. Mothers should be reminded of the danger signs each time.

See the chapter on the sick young infant less than 2 months. Be ready to take the baby to the health center or hospital.

5. Small babies

Babies may be small because they have been born too soon or because they did not get enough food in the mother's womb. They always need more care. It is wise to ask the advice of the doctor or midwife at the health center.

Small babies become cold more easily. The best way to keep a small baby warm is to hold it between the mother's breasts and cover it well. When away from the mother, cover it well with blankets. Cover the baby's head with a woolen hat at all times.

Small babies need to breast-feed frequently. Especially, if the baby was born early, it may become tired and not suck well. Try suckling more often and change breasts. If the baby cannot suck well, it may be necessary to give the milk by spoon after squeezing it from the mother's breasts. This needs to be done very carefully to avoid giving the baby germs that cause diarrhea. (See section on breast feeding.)

Small babies sometimes have breathing difficulties. They also get jaundice more easily. If this happens, take the baby to the midwife or doctor for advice.

6. Vitamin A for the mother.

Vitamin A is necessary to help babies fight against infections. During the first six months, the safest way to give Vitamin A to the baby is through its mother's milk. Therefore, the mother should receive 1 capsule of vitamin A (200,000 IU) as soon as possible after birth.

Things to Do

The CHW should visit the mother and newborn baby on the first day, and again on the third day and at the end of the first week. She should use the IEC flip chart to remind the mother about care after delivery and the danger signs for her and her baby. If the CHW hears that the mother or baby is sick at any time, she should visit them as soon as possible.

1. The First Day

1.1 Check that the baby is:

- Warm
    - Encourage the family to wait at least 6 hours, but better for the second day before washing the baby.
- Breast-feeding at least every two hours
    - Check that the baby's position is good for sucking.
    - Remind the family that additional honey or sweet things are not necessary
- Cord is well tied and clean.
    - Remind the family to keep the cord clean and dry, and not to add anything to it.
- Passing urine and feces

1.2 Check the baby for danger signs:

- The baby stops sucking or sucks very weakly
- The baby is very lethargic
- Breathing is fast or difficult
- Pus from the cord and red skin on the belly around the cord,
- The baby has convulsions
- Diarrhea,
- Fever or feeling very cold

1.3 Remind the mother of the danger signs.

1.4 Give one Vitamin A capsule (200,000 iu.) to the mother.

2. On the Third and Seventh Days

2.1 Check that the baby is kept warm.

- Are the head and body well-covered**?**

2.2 Check that the baby is breast feeding well *(See section on Breast Feeding)*

- Is the baby sucking well?
- The baby should be taking NO other food or fluids
- Does the mother have any difficulties or problems with breast feeding?
    - Watch the mother breast feeding and check the position of the child.
- Advise the mother on her own diet

2.3 Check the baby: *(See chapter on caring for the Sick Young Child)*

- Has the cord come off**?** Is the navel clean and healing?
    - Clean and put on gentian violet if local infection
    - Take to hospital if redness on skin of belly round the cord.

- Any redness or pus in the eyes?
    - Take to health facility

- Are there any danger signs?
    - Take to health facility urgently

- Does the mother have any worries?
    - Listen. Give advice if asked for it.

2.5 Ask the mother and family when will be the first clinic visit for:

- Baby's first check
- Baby's first immunization
- Mother's check after delivery
- Discuss family planning

Key Points

1. Newborns easily get cold.
    a. Do not wash the child too soon after birth
    b. Keep the baby close to the mother
    c. Provide warm clothes and a hat.

2. Newborn babies easily get infections.
    a. The best prevention is breast feeding and no other food or fluids.
    b. If any danger signs appear, the infant must be immediately taken to a health center or hospital.

10. Caring for the Sick Young Child
Less than 2 months old

Objectives

At the end of the session the participant will be able to:

- Explain why young children with severe disease need to be referred to hospital or clinic very urgently.
- Explain the difference between severe and mild cord and skin infections and how to manage each of them

Content

- Classification and management of infections in young children under the age of two months.

Methods

- Discussions
- Case studies

Materials

- Child Management Charts
- Demonstration Pictures

A. Reflect:

a. *Ask the participants to recall any sick children under two months that they have seen. Ask them to describe:*
- What seemed to be wrong with them
- How easy it was to decide what part of the body was sick
- What happened to the child.

b. *Use the discussion as a way to talk about the features of severe infections in newborns and very young children:*
- Infections may spread to all parts of the body.
- For this reason they often present less clearly than pneumonia or diarrhea in older children.
- The bacteria that cause these infections are different. They usually need to be treated with two antibiotics, sometimes by injection.
- Very young children can get sick very quickly. For this reason, it is important to look out for the signs of these infections and get the children to a health facility quickly for assessment and treatment. (The three visits to a newborn's home in the first week of life are an attempt to catch these diseases early.)

c. *Ask how many have seen an infection of the umbilical cord.*
- Did you discover how it happened?
- What happened to the child afterwards?

B. Exercise: Review charts

Severe Disease in Young Infants

e. Ask all participants to turn to the chart on Severe Disease in Young Infant (Less than 2 months old.).

f. Review the pictures and make sure that they can all identify the danger signs by the pictures.

g. For each danger sign, ask someone to describe how he/she would make sure if the danger sign is present. Discuss what is said with the rest of the group and talk about the difficulties in checking for the danger signs.

- *Make a point to explain the significance of the following in young children:*
  a. Fast breathing at 60 each minute
  b. Severe chest indrawing
  c. A cold newborn

*h. Make sure that they understand that the **ONE** pointing hand means that if only one danger sign is present, the child should be referred. There may be more than one danger sign.*

Skin infections in young infants

i. Ask them to turn to the next chart on skin infections. (Use the Demonstration Pictures to help.)

j. Ask someone to compare the two pictures of the umbilicus.
- *What does he see in the two pictures?*
- *What is different between the two?*
- *What is the meaning of the difference for the management?*
- *What do they think about the length of the cord?*

k. Ask for suggestions how these infections of the cord take place

l. What can we do to change or improve these practices?
- *Who has a success story to tell?*

C. Exercise: Case studies

a. Divide the participants into pairs.

b. Explain that you will read out the details of the case. Each pair should then use the charts to classify the case and decide what treatment and management the child should have.

c. Ask the following questions:

- What is the child's problem?
- Assess the child according to the charts on young infants
- What is the classification of this child's illness? Why?
- What is the treatment and management?

d. Read the case twice.

e. After they have had time to make a decision, call on two or three pairs to say what they decided and why. Discuss any disagreements between the groups to correct the answers.

Case study 1. Nasr is 7 days old. He was born at home. Mother says he has been sick for 2 days and is not breastfeeding so well. He seems to get tired more easily than at first. She thinks he has a fever. He has had no convulsions. You find that he is conscious, and suckles for a short time. He feels hot. He is breathing 65 times each minute and has some chest indrawing.

- Classification: Severe disease. (Seems like pneumonia.) The number of breaths each minute is the one certain sign of severe disease. He should be given Cotrimoxazole and referred urgently to hospital or the clinic.

Case study 2: Fatima is 10 days old. She has been very well so far, but she has a rash on her left leg. Mother says that they started 4 days ago as red spots. Then they became white in the middle and some of them have burst and let out pus. She has no fever and looks an healthy active baby apart from the spots. These are on the outside of the left upper leg. There are still some pustules, and some have burst and have a crust.

- Classification: Mild skin infection. She should get a five day course of Cotrimoxazole and have Gentian Violet painted over he spots.

Case study 3: Habib is a week old, and was delivered at the health center. He was fine for the first few days, but has become easily upset in the past two days. He is still breastfeeding well and has had no convulsions. Mother says the cord became red and had some pus three days ago, but has got worse. You see that the cord has some pus and there is redness and swelling at the bottom of the umbilicus spreading onto the abdominal wall for about the width of two fingers. It upsets the baby when it is touched.

- Classification: Severe infection. There are no general danger signs but he has a very severe infection of the umbilicus and abdominal wall. He should receive a first dose of Cotrimoxazole and be referred urgently to the facility.

Caring for the Sick Young Child
Less than 2 months old

Things to know

1. Severe disease in young infants.

Severe infections are common in newborns and very young children, and are one of the main causes of death in newborn children. These infections are different in several ways from infections in older children:

a. Infections may spread to all parts of the body.
b. For this reason they often present less clearly than pneumonia or diarrhea in older children.
c. The bacteria that cause these infections are different. They usually need to be treated with two antibiotics, sometimes by injection.
d. Very young children can get sick very quickly. For this reason, it is important to look out for the signs of these infections and get the children to a health facility quickly for assessment and treatment.

2. Skin infections in newborns.

a. Cord infections.

There is no need for the umbilical cord to become infected, but there are many ways in which it does happen:

- It is cut with a dirty knife or pair of scissors.
- It is cut against a dirty shoe or other object.
- Hands are not clean when cutting the cord.
- It is covered with a dirty cloth
- Various substances are put on the cord either to make it drop off quickly or for magic purposes.
- If the cord is cut too short, infection can reach the rest of the body quicker. It should be cut about the length of an index finger.)

Infection starts in the cord itself. There may be pus, and the skin at the bottom of the cord may become red. This is a mild infection. If the infe3ction spreads to the abdominal wall around the umbilicus, there will be redness and swelling of the abdominal wall. This is a severe infection.

b. Skin pustules.

Infection can spread by hands to a baby's skin. This sometimes causes pustules. In a mild infection there will be few pustules in one part of the body. In severe infection there are many pustules over a wider part of the body. Fever will indicate that the infection has spread to many parts of the body.

Things to Do

1. Severe disease in young infants.

CHECK FOR GENERAL DANGER SIGNS

ASK	**LOOK**
• Is the child able to breast feed? • Has the child had convulsions?	Is the child lethargic or unconscious? Has he got fast breathing? Does he have severe chest indrawing? Does he have a fever? Does he feel cold?

When you check for general danger signs:

ASK: Is the child able to breastfeed?

A child has the sign "not able to breastfeed" if the child is not able to suck or swallow when offered breastmilk.

Remember: a child who is breastfed may have difficulty sucking when his nose is blocked. He may have a cold. If the child's nose is blocked, clear it. If the child can breastfeed after his nose is cleared, the child does not have the danger sign, "not able to breastfeed."

ASK: Has the child had convulsions?

During a convulsion, the child's arms and legs stiffen because the muscles are contracting. The child may lose consciousness or not be able to respond to spoken directions.

Ask the mother if the child has had convulsions during this current illness. Use words the mother understands. For example, the mother may know convulsions as "fits" or "spasms."

LOOK: See if the child is lethargic or unconscious.

A lethargic child is not awake and alert when he should be. He is drowsy and does not show interest in what is happening around him. Often the lethargic child does not look at his mother or watch your face when you talk. The child may stare blankly and appear not to notice what is going on around him.

An unconscious child cannot be wakened. He does not respond when he is touched, shaken or spoken to.

Ask the mother if the child seems unusually sleepy or if she cannot wake the child. Look to see if the child wakens when the mother talks or shakes the child or when you clap your hands.

LOOK for fast breathing. (more than 60 breaths in a minute.)

You must count the number of breaths in one minute to decide if the child has fast breathing. The child must be calm and quiet when you look and listen to his breathing.

In a child less than 2 months old, fast breathing means more than 60 breaths in each minute.

LOOK for severe chest indrawing,

The chest wall of a young infant bends very easily, so chest indrawing can be seen with even when the child is well. If the child is sick with pneumonia, the chest indrawing will be severe.

CHECK the child's temperature

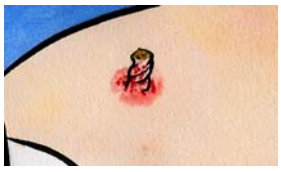
A sick newborn may either have a fever or it may feel cold. A newborn still has difficulty in controlling its body temperature. As the child gets sicker it often loses more heat than it makes and may feel very cold. This is a serious sign.

2. Skin infections in newborns.

Assess infections of the umbilical cord

Mild Infection occurs when there is pus on the cord, but redness and swelling are limited to the skin at the bottom of the cord.

Severe infection is when the redness and swelling have spread onto the abdominal wall around the bottom of the cord.



Severe infection of the umbilical cord. The redness is on the abdominal wall.

3. Classify and manage infections in a young child.

There are three possible classifications in a young child with infections:

- **Severe disease**
- **Severe cord or skin infection**
- **Mild cord or skin infection**

Use the classification table to decide the correct management:

• Any one danger sign in young infants	**SEVERE DISEASE** • Give a first dose of Cotrimoxazole if the baby can take it. • Refer URGENTLY to hospital or clinic
• Redness and swelling of the skin of the abdominal wall around the umbilicus. • Many pustules over a wide area of skin.	**SEVERE SKIN INFECTION** • Give a first dose of Cotrimoxazole. • Put gentian violet on the pustules. • Refer URGENTLY to hospital or clinic
• Redness and swelling only on the umbilical cord. • Limited number of pustules in a small area.	**MILD SKIN INFECTION** 1. Cotrimoxazole for five days 2. Put gentian violet on the pustules.

Severe Disease in young infants.

It is very urgent to get the child with Severe Disease to hospital or a clinic. The condition can get worse very quickly.

In newborns, the bacteria do not usually respond to Cotrimoxazole. If the baby can still take medicine by mouth, it is worth giving him a first dose. But no time should be lost in trying to give him medicine.

Severe Skin Infection in young infants.

It is important to get this child to a health center urgently since the infection in the abdominal wall or on the skin rapidly spreads to other parts of the body.

Give a first dose of Cotrimoxazole and refer.

Mild Skin Infection in young infants

At this stage the infection can still be treated at the health post. Give a five day course of Cotrimoxazole and put Gentian Violet on any pustules.

It is important to see the child again after two days to make sure that he is getting better.

11. Closing the Course.