

Pre-referral rectal artesunate treatment of childhood malaria in the community

Training Manual for community health workers to assess danger signs, provide emergency pre-referral treatment and refer treated children to a health facility.







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Acknowledgements

his manual has been developed by the Special Programme for Research and Training in Tropical Diseases (TDR) to help train Community Health Workers (CHWs) on the pre-referral use of rectal artesunate.

This is based on the integrated management of childhood illness (IMCI) strategy, and an earlier publication, *Caring for the sick child in the community*, which was produced by the WHO Department of Maternal, Newborn, Child and Adolescent Health.

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he titles of pages or paragraphs in this Manual clearly identified with a *green colour are specific to trainers* in charge of a group of *Community Health Workers (CHWs)*. Other titles with an *orange-brown colour are specific for CHWs*, either as personal exercises, or as themes for discussions and/or illustrated examples for use to explain malaria management to families in their community.

The attached 12 minutes video entitled: "Preventing malaria deaths with an Artesunate suppository" contains the same chapters as this Manual. References are also made in this manual to the "Sick Child Recording Form" and the "Referral Form" to be used by CHWs for each sick child assessed.

The recording form is a guide to identify signs of illness and to decide whether the child should be treated and referred to a health facility.

The trainer might use other materials such as flipcharts,

photos, more videos, posters to facilitate his or her course and adapt the content of this Manual to a specific environment or group of CHWs (Community Health Workers).

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Course objectives for trainers of Community Health Workers (CHWs)

Your final objectives for a course organised with this manual.

Your trainees are CHWs. They will be able:

- To identify danger signs for malaria.
- To use forms to guide them to care for a sick child who may have malaria, and to record decisions and actions.
- To begin treatment for malaria and refer a child with danger signs to a facility.
 - To monitor the progress of a child after returning home from a facility visit.
 - If the child does not improve, to refer him or her again to the health facility.

hese final objectives should be explained to CHWs at the beginning of the course.

This Manual for trainers and Community Health Workers is linked to the main course "Caring for the Sick Child with Danger Signs in the Community" which is part of the strategy called Integrated Management of Childhood Illness (IMCI).

However, this Manual concentrates specifically upon malaria and the Danger Signs for use of pre-referral treatment with rectal

artesunate. It should be used in countries and areas where malaria is endemic, where young children are at risk of severe malaria, and where pre-referral treatment is part of national treatment guidelines.

It is really crucial that this training be provided to CHWs based in communities far from a health facility that can provide injectable treatment. The CHWs should be aware that this training helps them to save the lives of many children in their community.

CHWs will learn how to treat **and** refer these children to the health facility for diagnosis and specialised care.

Using the video provided with this Manual is also part of the approach. Moving pictures in the video are more convincing than photographs or drawings to show CHWs the types of symptoms involved in severe malaria.

Photographs and drawings in this Manual will help the conduct of exercises with CHWs. The drawings also help to explain the messages to their community members when they return home. *The illustrated pages dedicated to CHWs should therefore be duplicated prior to a training course* so that each CHW can take these duplicated pages back home.



These are your objectives:

To help save lives of children in your community, you will learn, during these course, how...

Key messages for
Community Health Workers
(Page to be duplicated for each of them)

- To identify danger signs for malaria when you meet a sick child.
- To use forms to guide you in assessing a child who may have malaria.
- These forms help you to record your decisions and actions. This is important for you and for the follow-up by other health workers who might be involved later.
- To provide pre-referral treatment for malaria and refer a child to a health facility where injections can be provided.
- To organise your follow-up of the child when the child has returned home, after management at the health facility.
- To advise parents to bring their child again when their child does not improve or becomes sicker.
- To organise your follow-up visits after the child's treatment at a health facility.

You'll be proud of any success when a child from your community will be cured!





Special considerations for remote communities in malaria endemic areas



Comment on the following information with your group of CHWs

Sick children who die of malaria often live in very remote areas.

Every hour without treatment in severe malaria increases the risk of death.

ymptoms of fever in a child can evolve in a very short time to become severe malaria with convulsions or other danger signs. When a child cannot take medicines by mouth, the only way to give treatment is through an injection. But an injection cannot be given safely in a community, so the child must be taken to a facility for an injection. For children living far from a facility where an antimalarial injection can be given, the disease progresses so fast that it reduces the time to reach a facility. Many children die before they arrive at a hospital.

Your final objectives with this section:

CHWs attending your courses will...

- Become fully aware of the risk of death or risk of longlasting damage caused by severe malaria since it evolves rapidly in young children.
- Be able to evaluate the time needed from any zone of their community to reach a health facility where immediate injection of medicines can be given.
 - Understand as a consequence why pre-referral treatment is crucial for children who have a danger sign related to malaria and why they need to be referred to a health facility.

Delays in giving treatment means their symptoms get worse, and can cause death.

For children who survive, there might be long-lasting neurological damage.

Using individual practice and collective discussion, make sure that CHWs can evaluate the following aspects within their community.

The time to reach a health facility where an antimalarial injection can be provided depends on:

- Distance between each household and the health facility.
- Transportation options available to households to reach a facility: walking (by foot), bicycle, motorbike, car, etc
- Availability of a nurse or doctor at the closest health facility.
- Availability of treatment and sterile equipment at this facility.



How far is the closest health facility?

Remember how fast severe malaria can evolve in a young child.

Key messages for Community Health Workers (Page to be duplicated for each CHW)

- Evaluate the time needed to reach a health facility from your community.
- Communicate in advance with community members about the need to come to see you
 as soon as they have a child with danger signs.
- Explain that the earlier the child gets treatment, the less severe the disease becomes.

Map the families living in your communities. Try to indicate the average time from each area to reach the closest health facility where injections of medicines can be given.

Comment on this photograph and explain how transport choices in your community are different or similar to this situation in which women walk on a long track.





Increase of malaria parasites in the body of a child

Your final objectives with this section:

CHWs attending your courses will...

- Be able to explain to community members that malaria parasites spread rapidly in the body.
 - Plan to promote the use of bednets as a malaria prevention measure

alaria is a disease caused by small germs, called parasites, which are introduced into the blood when a mosquito bites. The parasites increase inside the body. About a week later, some symptoms can appear, such as fever. The fever can be accompanied by other symptoms. One way of knowing when a child is becoming severely ill is when the child can no longer take medication by mouth. *Killing the parasites quickly is important in malaria*.

Precise danger signs are explained in the next chapter. This section just introduces the subject of severe malaria.

Malaria can be prevented. But if a person already has malaria, early treatment can save life.

Trainers could give information to CHWs about malaria in their region or country. Statistics from the Ministry of Health, information about local or national prevention measures, etc. are useful.

Prevention measures against malaria in communities.



- Have CHWs already seen cases of severe malaria among children in their communities? How were the cases handled by the parents and the health facility?
 Can some of the details of these cases be remembered by community members?
- What was done during the past two years in each of the CHW communities to explain the risk of death due to malaria, or to explain prevention measures such as using impregnated bednets?
- How frequently are education campaigns organised? When was the last information campaign? Is there routine information provided to mothers on use of bednets and protecting themselves and their baby from malaria during their antenatal care visits?



Encourage CHWs to be supportive by making caregivers and children comfortable

he success of pre-referral treatment depends on how well CHWs communicate with the child's caregiver and how early the child is brought for treatment. The term caregiver is a generic term. Usually the mother is in charge but it could be the father, a neighbour or a foster parent.

More advice about good communication skills is provided in chapter E of this Manual which is about the follow-up of cases after treatment at the health facility.

The caregiver and others in the family need to understand the importance of timely care and treatment. They need to feel free to ask questions when they are unclear. CHWs need to be able to check their understanding of what to do.

Your final objectives with this section:

CHWs attending your courses will...

- Be at ease to greet and welcome a caregiver, and ask questions about her child
 - Start to use the Sick Child Recording Form.

Trainers could organise role plays to coach CHWs with the advice given below.

Greet the caregiver and child

Whenever a caregiver comes to you with a sick child, she is usually very worried and anxious. Where you sit and how you speak to the caregiver will help communication and make the caregiver feel comfortable. The child will also sense when there is a good relationship between you and the caregiver. First, welcome warmly the caregiver and child. Sit close to them, look at the caregiver, speak gently. Encourage the caregiver to talk. Use the following approach:

- ASK questions to find out what the caregiver is already doing for her child.
- LISTEN to what the caregiver says.
- LOOK at the child to assess the child's condition.
- PRAISE the caregiver for what she or he has done well.
- ADVISE the caregiver on how to treat the child at home.
- CHECK the caregiver's understanding.
- SOLVE PROBLEMS that may prevent the caregiver from giving good treatment.

Key messages for Community Health Workers (Page to be duplicated for each CHW)

Ask about the child and caregiver

Greet the caregiver. Invite the caregiver to sit with the child in a comfortable place while you ask about the illness. Sit close, talk softly, and look directly at the caregiver and child.

Communicate clearly and warmly.

Listen carefully to the caregiver's answers.

Record information about the child and the visit on top of the Sick Child Recording Form which is copied below (the full form is available in the Appendix F of this manual):

TIP:

Greet caregivers in a friendly way whenever and wherever you see them.

Through good relationships with caregivers, you will be able to improve the lives of children in your community

(for comm	Sick Child Reco	rding Form hild age 2 months up to 5 years)
Date://20 (Day/Month/year)	CHW:	
	Family	Age: years/months Boy/girl
Caregiver's name:		Relationship: mother / father / other
Address, Community:		

TIP:

To look well organised, be ready with...

- The Sick Child Recording Form
 - Your pencil

We will now start with the information on the top of the form.

- Date: the day, month, and year of the visit.
- CHW: your name.
- **Child's name:** the first name and family name.
- Other information on the child:
 - Write the age in years and/or months.
 - Circle boy or girl.
- Caregiver's name, and relationship to child Write the caregiver's name. Circle the relationship of the caregiver to the child: Mother, Father, or Other. If other, describe the relationship (for example, grandmother, aunt, or neighbour).
- Address or Community: to help locate where the child lives, in case the community health worker needs to find the child.







Use the introduction of the Sick Child Recording Form

Child 1: Zena Marks

First, write today's date - Day, month, and year - in the space provided on the form below. You	are the
community health worker. Write your initials.	

Zena is a 3 year old girl. Her mother Grace Marks brought her to your home.

Her address is 200 Jacaranda Road. Complete the recording form below.

(for comm	Sick Child Reco		en E vones)	
Date://20	unity-based treatment of CHW:		to 5 years)	
(Day/Month/year)	CIIV			
Child's name: First	Family	Age : ye	ears/months	Boy / girl
Caregiver's name:		Relationshi	p: mother / fath	ner / other
Address, Community:				
ild 2: Grace Kima				
Grace is a 10 month old girl. F	Her father, Peter Kima	, brought her to see	vou. He usually ta	akes care of
by. The Kima family live near yo				
	Sick Child Reco		_ ,	
(for commu	unity-based treatment of	child ago 2 months un t	o 5 vears)	
	•		, , , , ,	
Date://20	CHW :		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Date ://20 (Day/Month/year)	CHW:			Boy / girl
Date://20 (Day/Month/year) Child's name: First	CHW: Family	Age : ye	ears/months	, ,
Date://20 (Day/Month/year) Child's name: First Caregiver's name:	CHW : Family	Age :ye	ears/months p: mother / fath	ner / other
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community:	CHW : Family	Age :ye	ears/months • mother / fath	ner / other
Date://20 (Day/Month/year) Child's name: First Caregiver's name:	CHW : Family	Age :ye	ears/months • mother / fath	ner / other
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community:	CHW:Family	Age:ye	ears/months • mother / fath	ner / other
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community:	CHW:Family ria from the inforr	Age:ye	ears/months • mother / fath	ner / othe
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community:	CHW: Family ria from the inforr	Relationshi	ears/months o: mother / fath	ner / othe
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community:	ria from the inforr	Relationshi	ears/months o: mother / fath	ner / other
Date://20 (Day/Month/year) Child's name: First Caregiver's name: Address, Community: nat do we know about Maher recording form below	CHW: Family ria from the inforr	Relationshi	ears/months o: mother / fath	ner / other
Date://20	ria from the inforr ? Sick Child Rec	Relationshi	ears/months o: mother / fath	ner / other
Date://20(Day/Month/year) Child's name: First Caregiver's name: Address, Community: nat do we know about Maher recording form below	ria from the inform ? Sick Child Reco	Relationshi mation ording Form child age 2 months up	ears/months p: mother / fath	ner / other
Date://20	ria from the informu? Sick Child Recounity-based treatment of CHW:	Relationshi mation ording Form child age 2 months up	ears/months p: mother / fath	Boy / girl

What are the child's problems?

This is a crucial section for trainers: CHWs will learn how to identify the child's health problems and signs of illness. In the next pages you will find parts of the Sick Child Recording Form. You should show first the full version of this form which is available in the Appendix, Chapter F.

Problems which CHWs write down will help them to decide whether to:

- Refer the child to a health facility OR
- Treat and Refer the child to a health facility

o identify the child's problems, CHWs first have to learn how to **ASK** the right questions of the caregiver and then **LOOK** at the child for signs of illness.

Drawings are proposed in the following pages. These drawings should be duplicated for CHWs. This will encourage discussion among CHWs. It will also make sure that they remember and revise what they learn during this course.

Your final objectives with this section:

CHWs attending your courses will be able to...

- Gather information about children's health.
- Identify children with fever.
- Identify children with danger signs not able to drink or feed, vomiting everything, convulsions, and unusually sleepy or unconscious (in coma).
 - Use the Sick Child Recording Form

At this stage of the course, role playing could be very useful in order to train CHWs to develop good skills when they interview caregivers and assess children.

Chapter 3 of the attached video is also about danger signs. It's important to show these images in motion since some danger signs are based on the analysis of movements or reactions from the child. For instance, to assess a child that is too weak to eat, drink or suck, to assess a child with altered consciousness or a child with repeated convulsions, etc, it is easier to observe and comment from the video rather than from a drawing.

Throughout the next pages, *trainers should comment and explain as much as possible* each of the danger signs.







LOOK for danger signs associated with fever (malaria)

ASK the caregiver: What are the child's problems?

What is the history of this illness for this child? These are the reasons the caregiver wants you to see the child.

The recording form lists common problems. An excerpt of the first column of the Sick Child Recording Form is printed on next page. The Form is available in its full version at the end of this Manual, in the Appendix, Chapter F.

First remember the following method: **ASK** about **all** the problems the child has.

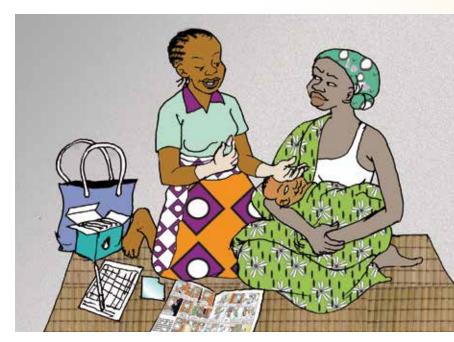
As the caregiver lists the problems, listen carefully and record them on the Sick Child Recording Form. The caregiver may mention more than one problem. For example, the child may have cough <u>and</u> fever.

If the caregiver reports any of the listed problems, tick \checkmark the small empty box \bigcirc next to the problem. Even if the problem reported is not visible now, you should believe the caregiver and tick the box.

Some items ask you to add brief answers. For example, write how many days the child has been sick.

Ask about **all** the problems on the list, even if the caregiver does not mention them. Perhaps the caregiver is only worried about one problem. If you ask, however, the caregiver may tell you about other problems. Record (tick or write) any problems you find.

If the caregiver says the child does NOT have a problem, circle the solid box next to the listed problem.





Now, do the exercise with a sample of this form filled for Maria Mulenga on the next page...



ASK and LOOK - left column of the Sick Child Recording Form

What problems did the mother identify?

What problems did the mother say Maria does not have?

		ck Child Recording Form		
(f	or community-base	ed treatment of child age 2 months	up to 5 years)	
Date://20		CHW:		
(Day/Month/year)			
Child's name: First	Maria	Family <u>Mulenga</u> Age:	_years/ <u>10</u> months	Boy / girl
Caregiver's name:_	Peter Oden	Relations	ship: mother / fath	ner / other
Adress, Community	Pea Pea			

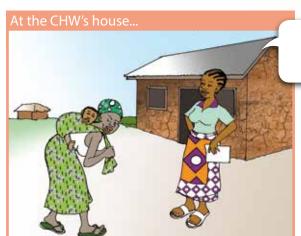
1. Identify problems ASK and LOOK ASK: What are the child's problems? If not reported, then ask to be sure. NO sign → Circle YES, sign present → Tick 🗗 1 ■ Cough? If yes, for how long? 2 days □ (■ 1) iarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long? ____days. □(|■):F DIARRHOEA, blood in stool? √ | Fever (reported or now)? If yes, started <u>4</u> days ago. **▼**| ■ Convulsions? □ (■))ifficulty drinking or feeding? YES, □ not able to drink or feed anything? $\sqrt{|}$ \blacksquare Vomiting? If yes, \square vomits everything? LOOK: □ (■) hest indrawing? (FOR ALL CHILDREN) IF COUGH, count breaths in 1 minute: _breaths per minute (bpm) \square (\square) ast breathing: Age 2 months up to 12 months: 50 bpm or more Age 12 months up to 5 years: 40 bpm or more $\Box(|\blacksquare|)$ Inusually sleepy or unconscious? For child 6 months up to 5 years, MUAC strap colour: □(|■) iwelling of both feet?





How to interview caregivers

Comment on the dialog and situation in the drawings below, and then act out a similar situation in role playing.



Mother: My child is ill; she is hot. The fever is not going away. Now she does not suck milk.



CHW: Please come in. Please sit down. I can take a look at the child. What is the history of this illness?

Mother:

The illness began 4 days ago. She began to have a hot body (fever).





CHW:

Did you give her any medicine? Did she eat or drink?



I tried to feed her, but she vomited each time. This morning she had convulsions, so I rushed here.



[This dialog continues on page 24...]



Remember how to look for danger signs of malaria

ou need to ASK and tick in the Sick Child Recording Form what the caregiver reports: cough, diarrhoea, blood in stool, fever, convulsions, difficult drinking or feeding, and vomiting, LOOK for chest IN-drawing, fast breathing, unusually sleepy or unconscious or other problems.

LOOKING requires experience and practice. You will practise in exercises, on videotapes, and with children in the health facility.

Please, learn carefully the explanations below about these very important symptoms. You will have to tick in the second (or third) column of the Sick Child Recording Form each time one of the danger signs are confirmed by ASKING the caregiver says or LOOKING at the child:

Fever (Now or in the last 3 days)

Identify fever by asking the caregiver or by feeling the child. Ask: "Does the child have fever now or did the child have fever anytime during the last 3 days?" You ask about fever during the last 3 days because fever may not be present now. Fever caused by malaria, for example, may not be present all the time, or the body may be hotter at some times than other times.

If the caregiver does not know, feel the child's stomach or underarm. If the body feels hot, the child has a fever now. If the child has fever, ask "When did it start?" Record how many days since it started.

Ш	I IF DIAKKI CON, DIOOD IN STOOK	☐ Bloom III 2	no blood in
<u></u>	■ Fever (reported or now)? If yes, started _4_ days ago.	□ Fever for last 7 days or more	Fever (less than 7 days) in a malaria area
ھا			

Repeated convulsions

During a convulsion, also called fits, the child's arms and legs stiffen. Sometimes the child stops breathing. The child may lose consciousness and for a short time cannot be awakened. When you ask about convulsions, *use local words the caregiver understands to mean a convulsion*. Ask whether there was a convulsion in this episode of illness.

	4 1	■ Convulsions?	V	Convulsions
Ų		■ Difficulty drinking on feeding?		Not able to drink

Difficult drinking or feeding

Ask if the child is having any difficulty in drinking or feeding. If there is a problem, ask: "Is the child not able to drink or feed anything at all?" A child is not able to drink or feed if the child is too weak to suck or swallow when offered a drink or breast milk.

TIP:

If you are unsure whether the child can drink, ask the caregiver to offer a drink to the child.

For a child who is breastfed, see if the child can breastfeed or take breast milk from a cup.

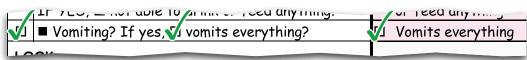


Repeated vomiting

If the child is vomiting, ask: "Is the child vomiting everything?" Ask the caregiver how often the child vomits. "Does the child vomit every time the child swallows food or fluids, or only sometimes?" A child who vomits

several times but can hold down some fluids does not "vomit everything". The child who vomits everything will not be able to swallow the oral medicine you have.





Unusually sleepy or unconscious

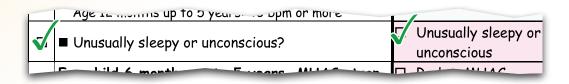
Look at the child's general condition, particularly if she or he is sleepy. If you have not seen the child awake, ask the caregiver if the child seems unusually sleepy. Gently try to wake the child by moving the child's arms or legs. If the child is difficult to wake, see if the child responds when the caregiver claps.

An unusually sleepy child is not alert when the child should be. The child is drowsy and does not seem to notice what is around him or her.



An unconscious child cannot awaken. The child does not respond when touched or spoken to. An unusually sleepy or unconscious child will not be fussy or crying.

In contrast, *an alert child* pays attention to things and people around him or her. Even though the child is tired, the child awakens.



■ Chest IN-drawing

Children often have cough and colds. A child may have a cough because moisture drips from the nose down the back of the throat. The child with only a cough or cold is not seriously ill.

Sometimes a child with cough is very sick. The child might have pneumonia. Pneumonia is an infection of the lungs. *You identify SEVERE PNEUMONIA by looking for chest IN-drawing.*

When pneumonia is severe, the lungs become very stiff. Breathing with very stiff lungs causes chest IN-drawing. The chest works hard to pull in the air, and breathing can be difficult. Children with severe pneumonia must be referred to a health facility.

Look for chest IN-drawing in all sick children. Pay special attention to children with coughs or colds, or children with any difficulty in breathing.

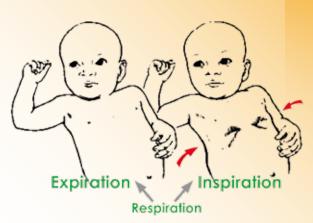
To look for chest IN-drawing, the child must be calm. The child should not be breastfeeding. If the child is asleep, try not to waken the child. Ask the caregiver to raise the child's clothing above the chest. Look at the lower chest wall (lower ribs) when the child breathes IN. Normally when a child breathes IN, the chest and stomach move out together. In a child with chest IN-drawing, however, the chest below the ribs pulls in instead of moving out; the air does not come in and the chest is not filling with air.

In this drawing, the child on the right has chest INdrawing. As indicated by the lines the chest below the ribs (the lower chest wall) goes IN when the child breathes IN, instead of moving out.

Chest IN-drawing is not visible when the child breathes OUT. In the picture, the child on the left is breathing out pushing the air out.

For chest IN-drawing to be present, it must be clearly visible and present at every breathing in.

If you see chest IN-drawing only when the child is crying or feeding, the child does not have chest IN-drawing.

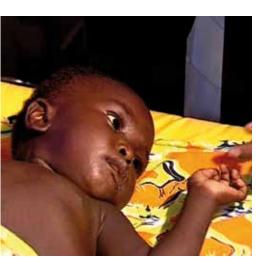






Video exercise: Watch Chapter 3 of the attached video and identify various signs of severe illness.

You might not see these signs very often. However, when you do see these signs, it is important to recognize them. The children are very sick.









Train yourself again to interview caregivers

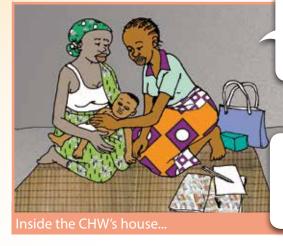
Comment on the dialog and situation in the drawings below, and then act out a similar situation in role playing.

[This dialog continues from page 19...]

If the mother does not know whether the child had a fever all the time, the CHW must feel the child's stomach or underarm, as well as child's head...

CHW: Did the child have fever every day until now? Mother: I am not sure.

The CHW feels whether the child's stomach is hot.



CHW says: She is hot now. You said that the child

had convulsions?

Mother: Yes, she had convulsions. We call them could not be awakened for a few minutes.



And you said she was vomiting before that. Was there anything else you saw?

Mother answers:

No. She was hot. She vomited, then she had convulsions. What should I do?



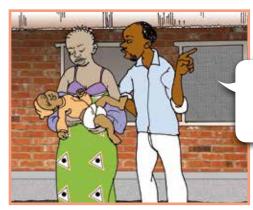


[New dialog with another mother...]

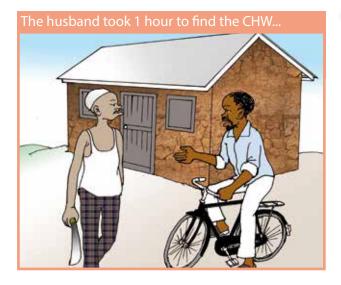


Mother: Our child is ill; she has had a cough. Her breathing is very different...





Husband: She looks like she is in a coma (in our language this is called "-----"). We need to ask the Community Health Worker to come here quickly. I will go and bring her.



Mother: My baby has had a cough and her breathing is very different since early this morning. Husband asks a neighbour: Where is the Community Health Worker?

We need her urgently at home.



[Dialog continues...]



The CHW calming the mother with a gentle approach and words:

Please, let's sit down. Don't worry too much. I'm going to look at the child and we will agree what to do. May I take a look at the child? What is the history of this illness?

Mother: It began 2 days ago. She began to have a hot body. Then, yesterday she began to cough and did not eat.





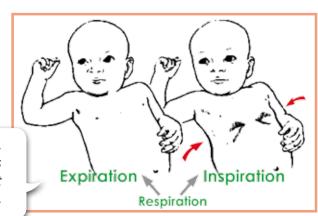
CHW: Did you give her any medicines? Has she been able to eat or drink?

Mother: I tried to feed her, but she did not suck.
This morning I noticed she was breathing heavily...



CHW: May I take a look at the child? Could you take off her top? I need to see how she breathes, and she needs to be calm.

The CHW continues: You see, when she breathes in, the chest goes in. She is not taking in enough air. This means that her chest is not filling up well. See that it happens so clearly for each breath.



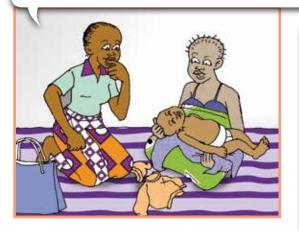


Mother: Good, she is sleeping now. Let us not wake her up

CHW: Sometimes a baby in a coma also looks as though the baby is asleep. The difference is that a comatose baby does not respond to voices, sounds, or anything, including pain. The baby is alive, but the brain is functioning at a low level of alertness. It is not possible to shake and wake up a child in a coma like a child who has just fallen asleep. We need to check if the baby responds to noise or pain.

CHW: She is not responding...! This is not good...

CHW: Aaaai! This is very serious. The child does not respond to pain. She has lost consciousness, even though she looks asleep.



CHW: I must treat her immediately with an artesunate suppository, and you must take her immediately to the hospital. You must hurry! Every moment counts. It is possible she has malaria, but with her chest indrawing it is likely she has pneumonia also.



Role playing:

"Three CHWs should play this story.
One plays the child and acts or says the symptoms. Two others improvise a dialog. They should train themselves to remain calm and concentrated on the diagnosis and questions to ask, and what to look for."

Video exercise: Watch Chapter 3 of the attached video and identify various signs of severe illness.

You might not see these signs very often. However, when you do see these signs, it is important to recognize them. The children are very sick.





Begin pre-referral treatment

Your final objectives with this section:

CHWs attending your courses will...

- Be able to identify symptoms of illness that are danger signs.
- Be able to decide if the child must be referred to the health facility when danger signs are identified.
- Understand how important the pre-referral treatment is to save lives of children at risk of severe malaria.
- Know how to use an artesunate suppository.
- Be able to write a referral note and explain why it is important to reach the health facility quickly.
- Assist the caregiver to transport the child to the health facility as fast as possible.

Trainers have to explain the following to CHWs:
Thinking of children who live in areas far from a health facility which can give injections for severe malaria, an anti-malarial drug has been developed as a suppository which can be given in the community before they reach the facility.

This suppository contains artesunate. Artesunate suppositories are safe, effective and easy to administer in the community. Artesunate is a drug which quickly kills parasites that cause malaria. So, when a child has severe malaria, an artesunate suppository prevents the illness from becoming worse while the child is taken to the nearest health facility.

A suppository is used ONCE as *emergency treatment* for a child with danger signs of severe malaria. The child is at high risk of death. A suppository is used when the child cannot take medication by mouth **AND** cannot reach a clinic or hospital quickly.

The suppository of artesunate is not a complete treatment.

This is why it is important that the child is taken immediately to the nearest health facility for complete treatment. Also the child might have another disease with the same symptoms as malaria.

This suppository is called **pre-referral artesunate** and it has to be administered as soon as a child who lives far from a health facility is identified with danger signs that prevent oral treatment. There are 5 danger signs which prevent a CHW from giving oral medicines: Convulsions, difficulties to eat, drink or suck (meaning that the child cannot take any medication by mouth), unable to sit, stand or walk (meaning the child is completely without energy or power, prostrated), repeated vomiting, altered

consciousness or coma.

A child with chest in-drawing presents signs of SEVERE pneumonia.

If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently

Decide to treat, refer and assist referral

Problems you have identified through the previous chapter of this course will help you decide to...

Key messages for Community Health Workers (Page to be duplicated for each of them)

refer the child to the health facility or treat the child at home, or treat and refer the child.

Some symptoms are **DANGER SIGNS** showing that the child is very ill. When you refer such a child to the health facility, you give the child a better chance to be assessed, diagnosed and treated correctly.

Look at the second column in the recording form in the Appendix F of this manual:

Any DANGER SIGN?

Any single sign ticked in this column is a reason to <u>refer</u> **OR** <u>treat and refer</u> the child URGENTLY to the health facility. You will decide what to do by checking the advice below while using the information you have ticked [] when ASKING the caregiver and when you LOOK at the child.

As mentioned below, there are 2 danger signs which require you to refer without treatment and 4 other signs where you treat with pre-referral treatment and refer.

Refer without treatment a child at risk of malaria or pneumonia in cases of...



Fever for the last 7 days or more.

Most fevers go away within a few days. Fevers that has lasted for 7 days or more can mean that the child has a severe disease, even if the fever has not occurred every day, all the time.

Chest IN-drawing.

Chest IN-drawing is a sign of severe pneumonia. This child will need oxygen and appropriate medicines for severe pneumonia.



Give pre-referral treatment for malaria and refer when these danger signs are ticked:

Convulsions.

A convulsion during the child's current illness is a danger sign. A serious infection or a high fever may be the cause of the convulsion. The health facility can provide the appropriate medicine and identify the cause.

Inability to eat, drink or suck.

One of the first indications that a child is very sick is that the child cannot drink or swallow. Dehydration is a risk. Also, if the child is not able to drink or eat anything, the child will not be able to swallow the oral medicine you have in your medicine kit.

Repeated vomiting, vomits everything.

When the child vomits everything, the child cannot hold down any food or drink at all. The child will not be able to replace the fluids lost during vomiting and is in danger from dehydration. A child who vomits everything also cannot take the oral medicine you have in your medicine kit.

Unusually sleepy or unconscious.

A child who is not alert and falls back to sleep after stirring. An unconscious child cannot awaken. Such a child needs to go to the health facility urgently to determine the cause and receive appropriate treatment.





If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently



Decide to refer (1)

You can do this exercise individually or as a group discussion.

The children below have problems reported by the caregiver. Assume the child has no other relevant condition for deciding whether to refer the child.

Which children have a danger sign? Circle Yes or No. To guide your decision, refer to the recording form.

Which children must be referred to the health facility?

Tick [✓] if the child should be referred.

Which children must be treated before referral to the health facility?

Tick [☑] if the child should be treated and referred.

Does the child have a dang	Refer child? Tick [☑]	Treat and refer child? Tick [☑]		
Sam – cough for 2 weeks	Yes	No		
Nilgun – low fever for 8 days, not in a malaria area	Yes	No		
lda – convulsions - once	Yes	No		
Carmen – cough for 1 month	Yes	No		
Tika – vomited everything yesterday	Yes	No		
Nonu – very hot body since last night, in a malaria area	Yes	No		
Maria – vomiting food but drinking water	Yes	No		
Thomas – not eating or drinking anything because of mouth sores	Yes	No		
Omar – not responding normally, and cannot awaken	Yes	No		
Avit – chest indrawing with a cough	Yes	No		



Decide to refer (2)

1
~

During this exercise, the trainer may ask you to put the example on a chart for the group discussion.

The children below have cough, diarrhoea, fever, or other problems reported by the caregiver and found by you. Assume the child has no other relevant condition for deciding whether to refer the child.

Does the child have a danger sign? Circle Yes or No.



Should you urgently refer the child to the health facility?

Tick [☑] if the child should be referred. To guide your decision, use the recording form.

	Does the child have a danger sign	Refer child? Tick [☑]	Treat and refer child? Tick [1]		
1	Child age 11 months has had cough during three days; he is not interested in eating but will breastfeed	Yes	No		
2	Child age 2 years vomits all liquid and food her mother gives her	Yes	No		
3	Child age 3 months frequently holds his breath while exercising his arms and legs	Yes	No		
4	Child age 12 months is too weak to drink or eat anything	Yes	No		
5	Child age 3 years with cough cannot swallow	Yes	No		
6	Child age 10 months vomits ground food but conti- nues to breastfeed for short periods of time	Yes	No		
7	Arms and legs of child, age 4 months, stiffen and shudder for 2 or 3 minutes at a time	Yes	No		
8	Child age 6 months has chest indrawing	Yes	No		
9	Child age 36 months has had a very hot body since last night in a malaria area	Yes	No		
10	Child age 4 years has had loose and smelly stools with white mucus for three days	Yes	No		
11	Child age 4 months has chest indrawing while breast- feeding	Yes	No		
12	Child age 4 and a half years has been coughing for 2 months	Yes	No		
13	Child age 2 years has diarrhoea with blood in her stools	Yes	No		
14	Child age 2 years has had diarrhoea for one week with no blood in her stools	Yes	No		
15	Child age 18 months has had a low fever (not very hot) for 2 weeks	Yes	No		
16	Child in a malaria area has had fever and vomiting (not everything) for 3 days	Yes	No		



Demonstration and practice: Use the Recording Form to decide whether to refer or treat + refer

The Recording Form guides you to make correct decisions. It helps you identify danger signs. It helps you decide whether to refer the child or treat the child at home.

Part 1: Demonstration

On the next page is the Recording Form for a child. Your trainer will use the Recording Form to guide you through the following steps.

What signs of illness did the community health worker find?

(LOOK at the ticked boxes in the first column, on the left.)

2 Identify danger signs or other signs of illness.

The CHW filled the column 2 «Any DANGER SIGN?» in the middle and column 3 «SICK but NO Danger Sign?» on the right.

The child was convulsing and is vomiting. So she is not able to eat or drink anything. To decide whether to refer or treat the child, which boxes, in which column, did the community health worker tick?

What would you decide to do? Would you treat and refer Maria to the health facility or treat her at home and advise her mother on home care? Why?

Tick the decision box at the bottom of the recording form to indicate your decision.





Part 1: Demonstration continues

ASK and LOOK	Any DANGER SIGN or other problem to refer?	SICK but NO Danger Sign?
ASK: What are the child's problems? If not reported, then ask to be sure. y=s, sign present → Tick pl NO sign → Circle		
■ Cough? If yes, for how long? <u>2</u> days	□ Cough for 21 days or more	
☐ Diarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long?days. ☐ ☐ DIARRHOEA, blood in stool?	□ Diarrhoea for 14 days or more□ Blood in stool	□ Diarrhoea (less than 14 days AND no blood in stool)
Fever (reported or now)? If yes, started <u>3</u> days ago.	□ Fever for last 7 days or more	Fever (less than 7 days) in a malaria area
✓ Convulsions? □ ifficulty drinking or feeding?	✓ Convulsions□ Not able to drink	
IF YES, \square not able to drink or feed anything?	or feed anything	
✓ Vomiting? If yes, ✓ vomits everything?	Vomits everything	
LOOK:		
□ (■ ()hest indrawing? (FOR ALL CHILDREN)	□ Chest indrawing	
IF COUGH, count breaths in 1 minute: breaths per minute (bpm) □ sast breathing: Age 2 months up to 12 months: 50 bpm or more Age 12 months up to 5 years: 40 bpm or more		□ Fast breathing
nusually sleepy or unconscious?	☐ Unusually sleepy or unconscious	
For child 6 months up to 5 years, MUAC strap colour:	□ Red on MU <i>AC</i> strap	
□ welling of both feet?	☐ Swelling of both feet	
2. Decide: Refer or treat child (tick decision)	If ANY Danger Sign,	☐ If NO Danger Sign,
	efer to health facility	treat at home and advise caregiver
	GO	TO PAGE 2

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If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently

Part 2: Practice (1)

The community health worker found the signs for the child below.

<u>Identify which are DANGER SIGNS</u> and which are other signs that the child is SICK but is NOT a Danger Sign.

Tick [✓] the appropriate box to indicate your decision.

Then, decide to refer or treat the child at home.

Tick [☑] the appropriate decision box to indicate your decision.

Child 1: Grace Kima

Child 1: Grace Kima		•	
ASK and LOOK	Any DANGER SIGN or other problem to refer?	SICK but NO Danger Sign?	
ASK: What are the child's problems? If not reported, then ask to be sure. YES, sign present → Tick, □ NO sign → Circle □)		
Cough? If yes, for how long? 2 days	☐ Cough for 21 days or more		
ir YES, for how long?days.	□ Diarrhoea for 14 days or more	□ Diarrhoea (less than 14 days AND	
□(■):F DIARRHOEA, blood in stool?	□ Blood in stool	no blood in stool)	
Fever (reported or now)? If yes, started <u>3</u> days ago.	□ Fever for last 7 days or more	□ Fever (less than 7 days) in a malaria area	
□(■) onvulsions?	□ Convulsions		
[])ifficulty drinking or feeding?	□ Not able to drink		
IF YES, □ not able to drink or feed anything?	or feed anything		
□(■)/omiting? If yes, □ vomits everything?	□ Vomits everything	1	
LOOK:	, ,		
✓ ■ Chest indrawing? (FOR ALL CHILDREN)	□ Chest indrawing	İ	
IF COUGH, count breaths in 1 minute:	· ·		
breaths per minute (bpm)			
□ (■) ast breathing:		□ Fast breathing	
Age 2 months up to 12 months: 50 bpm or more Age 12 months up to 5 years: 40 bpm or more			
□ □ Unusually sleepy or unconscious?	☐ Unusually sleepy or unconscious		
For child 6 months up to 5 years, MUAC stra			
colour:	strap		
□ welling of both feet?	☐ Swelling of both feet		
_	Ţ		
2. Decide: Refer or treat child (tick decision)	☐ If ANY Danger Sign, refer to health facility	☐ If NO Danger Sign, treat at home and advise caregiver	
		TO PAGE 2	

GO TO PAGE 2

If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently



Part 2: Practice (2)

The community health worker found the signs for the child below.

<u>Identify which are DANGER SIGNS</u> and which are other signs that the child is SICK but is NOT a Danger Sign.

Tick [$\boxed{\mathbf{M}}$] the appropriate box to indicate your decision.

Then, decide to refer or treat the child at home.

Tick [☑] the appropriate decision box to indicate your decision.

Child 2: Comfort Green

Any DANGER SIGN or other problem to refer?	SICK but NO Danger Sign?
□ Cough for 21 days or more	
□ Diarrhoea for 14 days or more	□ Diarrhoea (less than 14 days AND
☐ Fever for last 7 days or more	no blood in stool) ☐ Fever (less than 7 days) in a malaria area
□ Convulsions	
□ Not able to drink or feed anything	
□ Vomits everything	
□ Chest indrawing	
	□ Fast breathing
Unusually sleepy or unconscious	
□ Red on MUAC strap	
☐ Swelling of both feet	
□ If ANY Danger Sign, refer to health facility	☐ If NO Danger Sign, treat at home and advise caregiver
	or more Diarrhoea for 14 days or more Blood in stool Fever for last 7 days or more Convulsions Not able to drink or feed anything Vomits everything Chest indrawing Chest indrawing Red on MUAC strap Swelling of both feet

GO TO PAGE 2 →

If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently

Part 2: Practice (3)

The community health worker found the signs for the child below.

<u>Identify which are DANGER SIGNS</u> and which are other signs that the child **is SICK but is NOT a Danger Sign.**

Tick [✓] the appropriate box to indicate your decision.

Then, decide to refer or treat the child at home.

Tick [☑] the appropriate decision box to indicate your decision.

Child 3: Mona Shah

ASK and LOOK	Any DANGER SIGN or other problem to refer?	SICK but NO Danger Sign?
ASK: What are the child's problems? If not reported, then ask to be sure. YES, sign present → Tick □ NO sign → Circle □)	
ough? If yes, for how long? days	□ Cough for 21 days or more	
☐ Diarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long?days.	□ Diarrhoea for 14 days or more	□ Diarrhoea (less than 14 days AND
☐(■) F DIARRHOEA, blood in stool? ☐ Fever (reported or now)? ☐ yes, started _3_ days ago.	□ Blood in stool□ Fever for last 7 days or more	no blood in stool) □ Fever (less than 7 days) in a malaria area
☐ Convulsions? ☐ ifficulty drinking or feeding? ☐ VES, ☐ not able to drink or feed anything?	☐ Convulsions☐ Not able to drink or feed anything	
☐ omiting? If yes, ☐ vomits everything?	□ Vomits everything	
LOOK: □(□) hest indrawing? (FOR ALL CHILDREN)	☐ Chest indrawing	
IF COUGH, count breaths in 1 minute:breaths per minute (bpm) ast breathing: Age 2 months up to 12 months: 50 bpm or more Age 12 months up to 5 years: 40 bpm or more	J	□ Fast breathing
■ Unusually sleepy or unconscious?	□ Unusually sleepy or unconscious	
For child 6 months up to 5 years, MUAC stracolour:	D Red on MUAC strap	
welling of both feet?	☐ Swelling of both feet	
2. Decide: Refer or treat child (tick decision)	☐ If ANY Danger Sign, refer to health facility	☐ If NO Danger Sign, treat at home and advise caregiver
-		TO PAGE 2

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Reasons for giving a pre-referral treatment

A pre-referral treatment is the first dose of the medicine.

It will work while the child is on the way to the health facility. On page 2 of the Sick Child Recording Form you can check whether you have in your medicine kit always enough storage of 4 pre-referral treatments needed when you assess danger signs. They are mentioned in this order: ORS, an artesunate suppository, oral anti-malarial and oral amoxicillin. A suppository of artesunate is what you must choose for a child with SEVERE malaria when a child has convulsions, is unusually sleepy or unconscious, or is unable to drink or feed anything or vomits everything.

Note that a pre-referral treatment *may not* be the reason the child is being referred. If the child has diarrhoea, the pre-referral treatment for diarrhoea is ORS. So give ORS to the child with diarrhoea even though the child is being referred for another reason.

Another example: You are referring a child with cough for 21 days or more. Do you give a pre-referral treatment for the cough? No, there is no pre-referral treatment for cough only.

Here's an excerpt <u>from the second page</u> of the Sick Child Recording Form (Please, look again at the full version of the form in the Appendix F of this manual) which tells you which treatment to give, and helps you to decide whether a pre-referral treatment for malaria should be given:

If any danger sign, REFER URGENTLY to health facility:				
ASSIST REFERRAL to health facility: □ Explain why child needs to go to health facility. GIVE FIRST DOSE OF TREATMENT:				
☐ If If child can drink, giving ORS solution right away.				
☐ If Fever, AND ☐ Convulsions or ☐ Unusually sleepy or unconscious or ☐ Not able to drink or feed anything ☐ Vomits everything	☐ Give rectal artesunate suppository (100 mg) ☐ Age 6 months up to 3 years> 100 mg ☐ Age above 3 years> 200 mg			



Discussion: Select whether the child needs pre-referral treatment

The trainer may give you a child's card for this group discussion.

For each child listed below:

0	Tick [✓] the sign	or signs for wh	ich the child	needs referral.
---	-----------	------------	-----------------	---------------	-----------------

- 2 Decide which sign or signs need a pre-referral treatment.
- $\fbox{3}$ Tick $\fbox{2}$ all the pre-referral treatments to give before the child leaves for the health facility.
- Write the dose for each pre-referral treatment. Refer to the recording form to guide you. Be prepared to discuss your decisions

Circle the signs to refer the child	Tick [☑] pre-referral treatment
Kofi (3 year old boy) – Cough for 3 days Chest indrawing Unusually sleepy or unconscious	□ Begin giving ORS solution□ Give first dose of oral antibiotic□ No pre-referral treatment□ Give dose of rectal artesunate suppository
Sara (3 year old girl) – Diarrhoea for 4 days Blood in stool	□ Begin giving ORS solution□ Give first dose of oral antibiotic□ No pre-referral treatment□ Give dose of rectal artesunate suppository
Thomas (3 year old boy) – Diarrhoea for 8 days Fever for last 8 days Vomits everything	☐ Begin giving ORS solution ☐ Give first dose of oral antibiotic ☐ No pre-referral treatment ☐ Give dose of rectal artesunate suppository
Maggie (5 month old girl) – Fever for last 7 days Diarrhoea less than 14 days Swelling of both feet	□ Begin giving ORS solution□ Give first dose of oral antibiotic□ No pre-referral treatment□ Give dose of rectal artesunate suppository

Warning: In this exercise, oral antimalarials are not mentioned. This is because an oral antimalarial is <u>ONLY</u> given before referral for a child who can take oral medicines <u>AND</u> when a CHW ticks «If fever and danger sign other than the 4 above»



Discuss more examples with decisions on the first dose of treatment

If any danger sign, ▼ REFER URGENTLY to health facility:					
□ Explain why	ASSIST REFERRAL to health facility: □ Explain why child needs to go to health facility. GIVE FIRST DOSE OF TREATMENT:				
□ If Diarrhoea	If child can drink, giving ORS solution right away.				
☐ If Fever, AND ☐ Convulsions or ☐ Unusually sleepy or unconscious or ☐ Not able to drink or feed anything ☐ Vomits everything	☐ Give rectal artesunate suppository (100 mg) ☐ Age 6 months up to 3 years> 100 mg ☐ Age above 3 years> 200 mg				
☐ If Fever , AND danger sign other than the 4 above	☐ Give first dose of oral antimalarial AL. ☐ Age 2 months up to 3 years> 1 tablet ☐ Age 3 years up to 5 years> 2 tablets				
□ If Chest indrawing, or	□If child can drink, give first dose of oral antibiotic (amoxycillin tablet—250 mg)				
□ Fast breathing	□Age 2 months up to 12 months> 1 tablet □Age 12 months up to 5 years> 2 tablets				
□For any sick child who can drink, advise to give fluids and continue feeding. □Advise to keep child warm, if child is NOT hot with fever. □Write a referral note. □Arrange transportation, and help solve other difficulties in referral. →FOLLOW UP child on return at least once a week until child is well.					

EXAMPLE 1

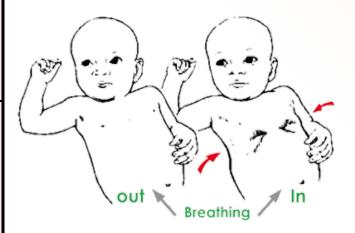
Minnie is 6 months old with cough and chest indrawing for 3 days.

What is the reason to refer this child (the danger sign)?

On the form, tick [$\boxed{\mathbf{v}}$] all the signs requiring pre-referral treatment.

Then, tick [] the pre-referral treatment you would give the child.

Tick [✓] the dose for the pre-referral treatment.





Discuss more examples

EXAMPLE 2

Naome is 3 years old. She has had fever for 2 days and is not able to drink. The mother says she had convulsions.

What is the reason to refer this child (the danger sign)?

On the form, tick [] all the signs requiring pre-referral treatment.

Then, tick [] the pre-referral treatment you would give the child.

Tick [☑] the dose for the pre-referral treatment.

EXAMPLE 3

Tom is 1 year old. He has had fever for 2 days and has convulsions now.

What is the reason to refer this child (the danger sign)?

On the form, tick [] all the signs requiring pre-referral treatment.

Then, tick [] the pre-referral treatment you would give the child.

ASSIST REFER	REFER URGENTLY to health facility: ASSIST REFERRAL to health facility: Explain why child needs to go to health facility. GIVE FIRST DOSE OF TREATMENT:			
□ If Diarrhoea	If child can drink, giving ORS solution right away.			
☐ If Fever, AND ☐ Convulsions or ☐ Unusually sleepy or unconscious or ☐ Not able to drink or feed anything ☐ Vomits everything	☐ Give rectal artesunate suppository (100 mg) ☐ Age 6 months up to 3 years> 100 mg ☐ Age above 3 years> 200 mg			
□ If Fever , AND danger sign other than the 4 above	☐ Give first dose of oral antimalarial AL. ☐ Age 2 months up to 3 years> 1 tablet ☐ Age 3 years up to 5 years> 2 tablets			
☐ If Chest indrawing, or ☐ Fast breathing	□If child can drink, give first dose of oral antibiotic (amoxycillin tablet—250 mg) □Age 2 months up to 12 months> 1 tablet □Age 12 months up to 5 years> 2 tablets			
□For any sick child who can drink, advise to give fluids and continue feeding. □Advise to keep child warm, if child is NOT hot with fever. □Write a referral note. □Arrange transportation, and help solve other difficulties in referral. →FOLLOW UP child on return at least once a week until child is well.				



Insertion of an artesunate suppository

A rectal artesunate suppository is used as emergency treatment for patients when they are suspected to have malaria, cannot take medication by mouth and cannot reach a clinic or hospital quickly. It is given if the child has fever +

- convulsions, or
- is unable to eat drink or suck, or
- is unusually sleepy or unconscious, or
- is vomiting everything, or
- is not able to sit, stand or walk.

Because it can be given by non-medical personnel, a child can be treated before or while in transit to a health facility. The result of giving artesunate in a suppository is similar to that of an injection.

Speed of assessment and treatment is important. Be sure that you have understood and practiced with the previous chapters of this course to be efficient in observing danger signs.

You will **not** take time to do a rapid diagnostic test for malaria. You will make sure that you always have a supply of artesunate suppositories with you and give this pre-referral dose of any time you suspect a child with a danger sign to have malaria.

In the next section of this chapter, you will learn how to refer the child to the nearest facility. At the health facility they will determine whether the child has malaria and continue with the most appropriate anti-malarial treatment.



Here are 4 easy steps to insert a suppository:

- Put on a new pair of gloves (ie not used before).
- Ask the caregiver to hold the child for you in one of the positions shown.
- Insert the suppository, round side first, pushing it with one of your fingers. Hold child's buttocks together for 10 minutes or so to make sure that the suppository is not expelled.
- Dispose of the gloves so that they cannot be reused.

Here is one possible position for inserting a suppository:

The video shows different children and a practice session on how to insert the suppository. You have been given gloves and a packet of suppositories. Insertion can be done on flat and hard surface (on mat, bed or table) and the child will be positioned in supine position and legs bent towards chest, as in the video and photograph.

If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently

Here are two other positions for inserting a suppository:

The child can be placed on the mother. The drug should be inserted with the bigger end first and buttocks should be held together for at least ten minutes so that the suppository is not expelled.

Dispose of the gloves - as shown on the video.





Problems that happen:

1 The suppository bursts during insertion. If this happens, insert a fresh suppository.

The suppository is expelled, or comes out soon after insertion.

If the suppository is intact, re-insert the suppository. If the suppository has ruptured or opened, then insert a new one. (Do not forget to record the information on what happened on the referral card.)

The child has diarrhoea. If you assess that the episode is not just diarrhoea but also malaria, insert the suppository once the episode of diarrhoea is complete.

Remember:

You cannot give oral medicine to a child who cannot drink.

If the child is having convulsions, is unusually sleepy or unconscious, is vomiting everything, or in any other way unable to drink, do not try to give oral medicine. Give a rectal artesunate suppository and refer the child **urgently** to the health facility



Write a referral note

To help immediate treatment at the health facility, write a referral note. This will be seen by the nurse or health professional who sees the child at the facility. You may have a specific referral form to complete for your health facility. If not, the model proposed in the Appendix F of this Manual may be used in agreement with the health facility.

A referral form summarizes the following information:

- Main observations from the Sick Child Recording Form.
- Decisions you have made: Refer only OR treat + refer.
- In case you treated the child with a first dose, document which treatment you gave and how it was administered.





This means that a referral note should give the following key messages to the nurse at the health facility:

- 1 The name and age of the child, as well as name of caregiver and community in which you saw the child.
- 2 A description of the child's problems.
- The reason for referral: List again the danger signs from the Sick Child Recording Form or other reason you referred the child.
- Treatment you have given. Tick [] each medicine and which dose you gave. It is very important for the health worker to know precisely what medicine you have already given the child.

- 5 Your name and the community where you live.
- The date and time of referral. Remember that time is very important on arrival at the health facility so that the health worker could estimate how long ago the child received a first dose of treatment.

Send the referral note with the caregiver to the health facility

D

Complete a recording form, document treatment & write a referral note

You are referring Tom to the health facility. He has had fever for 2 days and convulsions.

Complete Tom's **referral form**. Decide which signs are Danger Signs or other signs of illness. Tick [] any DANGER SIGN and other signs of illness.

ASK and LOOK			Any DANGER SIGN or other problem to refer?	SICK but NO Danger Sign?
re	ok: What are the child's problems? If not ported, then ask to be sure. YES, sign present → Tick [4] NO sign → Circle)		
	Cough? If yes, for how long? days		□ Cough for 21 days or more	
	■ Diarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long?days.		□ Diarrhoea for 14 days or more	□ Diarrhoea (less than 14 days AND
	■ IF DIARRHOEA, blood in stool? ■ Fever (reported or now)? If yes, started days ago.		□ Blood in stool□ Fever for last 7 days or more	no blood in stool) ☐ Fever (less than 7 days) in a malaria area
	■ Convulsions?		□ Convulsions	
	■ Difficulty drinking or feeding? IF YES, □ not able to drink or feed anything?	_	□ Not able to drink or feed anything	
□ ■ Vomiting? If yes, □ vomits everything?			□ Vomits everything	1
	OOK:		, ,	1
☐ ■ Chest indrawing? (FOR ALL CHILDREN)			□ Chest indrawing	
_	IF COUGH, count breaths in 1 minute:breaths per minute (bpm)			□ Fast breathing
	■ Unusually sleepy or unconscious?		□ Unusually sleepy or unconscious	
For child 6 months up to 5 years, MUAC strap colour:		ıp	□ Red on MUAC strap	
□ Swelling of both feet?			☐ Swelling of both feet	
		_	<u> </u>	$\overline{igg }$
2.	Decide: Refer or treat child (tick decision)		If ANY Danger Sign, fer to health facility	☐ If NO Danger Sign, treat at home and advise caregiver

GO TO PAGE 2 →

If DANGER SIGNS of severe malaria, treat the child with an artesunate suppository and refer urgently



If any danger sign, ▼ REFER URGENTLY to health facility:			
ASSIST REFERRAL to health facility: □ Explain why child needs to go to health facility. GIVE FIRST DOSE OF TREATMENT:			
□ If Diarrhoea	If child can drink, giving ORS solution right away.		
☐ If Fever, AND ☐ Convulsions or ☐ Unusually sleepy or unconscious or ☐ Not able to drink or feed anything ☐ Vomits everything	☐ Give rectal artesunate suppository (100 mg) ☐ Age 6 months up to 3 years> 100 mg ☐ Age above 3 years> 200 mg		

2	Tick []the sign	or	signs	for	which	the
child	needs re	ferral.					

- 3 Decide: Refer, OR Treat & refer Tom.
- 4 Tick [☑] treatment given and other actions.
- Complete the **Referral Note below** for Tom to the nearest health facility. Put today's date and time, where you are asked for them.

Caregiver's name:			Relationship: Mother / Father / Other:				
40	ldress, Community:						
	The child has (tick □ sign, circle ■ no sign):	Г	Reason for referral:	1	Treatment given:		
	■ Cough? If yes, for how long? days		Cough for 21 days or more		Oral Rehydration		
	■ Diarrhoea (loose stools)?days.	_	Diarrhoea for 14 days or more	1	Salts (ORS) solution for diarrhoea		
	■ If diarrhoea, blood in stool?		Blood in stool	1			
	■ Fever (reported or now)? days.		Fever for last 7 days		Oral antimalarial AL		
	■ Convulsions?		Convulsions	1	for fever		
	■ Difficulty drinking or feeding?		Not able to drink or feed	1			
	If yes, □ not able to drink or feed anything?		anything		Rectal artesunate		
	■ Vomiting? If yes, □ vomits everything?		Vomits everything	1	suppository for fever if convulsions,		
	■ Chest indrawing?		Chest indrawing	1	unable to drink.		
	IF COUGH, breaths in 1 minute:	Т		1	vomiting, unusually		
	■ Fast breathing:	1		1	sleepy/unconscious		
	☐ Age 2 months up to 12 months: 50 bpm or more	1		1			
	☐ Age 12 months up to 5 years: 40 bpm or more	┸		_ _	Oral antibiotic		
	■ Unusually sleepy or unconscious?		Unusually sleepy or unconscious	l	amoxicillin for chest indrawing or fast		
	For child 6 months up to 5 years, MUAC strap colour: red yellow green	_	Red on MUAC strap		breathing		
	■ Swelling of both feet?		Swelling of both feet	1			
An	y OTHER PROBLEM or reason referred:	_					

Help CHWs explain to caregivers why the child needs to go to a health facility

nce CHWs have learned how to complete the Sick Child Recording Form and decide whether to refer a child to the health facility, they should be prepared to face refusal of a caregiver who does not want to take the child to a referral hospital.

When CHWs have given the first dose, the caregiver may think that this medicine is all the child needs.

CHWs must be firm and explain that this medicine alone is not enough. It is just the first dose.

The child may have another infection. A child with a danger sign must go immediately to the health facility for diagnosis of the illness and completion of treatment.

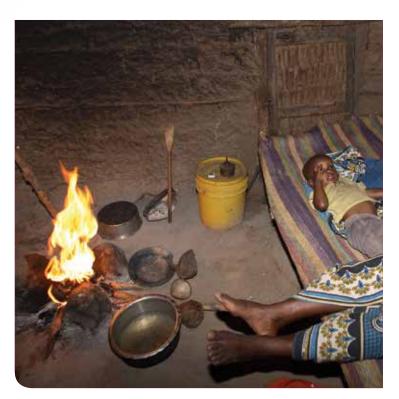
Your final objectives with this section:

CHWs attending your courses will...

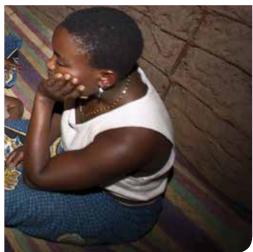
- Understand that their advice continues after the filling of a Sick Child Record Form, Treatment & a Referral Note.
- Liaise on a regular basis with community leaders when transportation to a health facility needs to be arranged for some families living in remote communities.

Going right away to the health facility may not be possible in some conditions. Perhaps the child is too sick. Perhaps travel at night is dangerous. Perhaps the rains have blocked the roads. Perhaps some areas in a community are very remote with no transportation, except walking.

The trainers will need to organize a discussion on these issues with CHWs.



Each member of the group might have experiences and solutions. Finding a solution for transporting a child with a danger sign to a health facility is crucial. Solutions can be found at the community level.





Arrange transport and help solve other difficulties in referral



eath reflects delayed care. A study in rural Tanzania, found that almost half of referrals took two or more days for the children to arrive at a health facility.*

Always ask the caregiver if there are any difficulties in taking the child to the health facility. Then, help solve problems that might prevent or delay taking the child for care.

Find out the transportation available to the family. Communities may have access to a regular bus, mini-bus or bicycle transportation to the health facility. Keep

the schedule handy. You do not want to miss the bus or other transport if it comes only once a day. If the child is very sick, you may need to send someone to ask the driver to wait, or to find another way of reaching the facility.

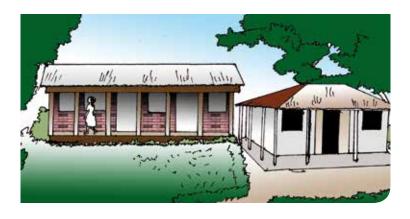
Some communities have no direct access to transport. A community health worker can help community leaders understand the importance of organizing transportation to a health facility (including a hospital). Or they can organize assistance to a road where there is regular bus service. A community leader may call on volunteers to assist families.

This service can be critical, especially for very sick children. Others also need this service, including women who have difficulty during pregnancy and delivery.

Keeping track of the numbers of children you have referred can help show the need. Use the recording forms or a log book or register this information.

Transport is only one of the difficulties a family faces in taking a sick child to the health facility.

The community health worker knows her community. The CHW knows the family and neighbours of the sick child. The CHWs knowledge helps the family solve the problems that delay a child being taken to the health facility.



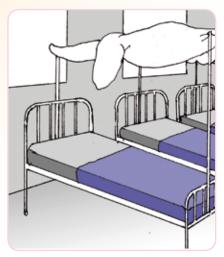
^{*} Font, F. and colleagues. (2002). Paediatric referrals in rural Tanzania: The Kilombero District study—a case series. BMC International Health and Human Rights, 2(1), 4-6, April 30.



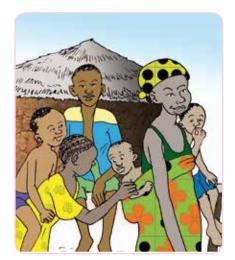
How to face refusal from the caregiver in following referral advice?

If the caregiver does not want to take the child to the health facility, find out why. Calm the caregiver's fears. Help him or her solve any problems that might prevent the child from receiving care.

The caregiver does not want to take the child to the health facility because:



The health facility is scary, and the people there will not be interested in helping my child.

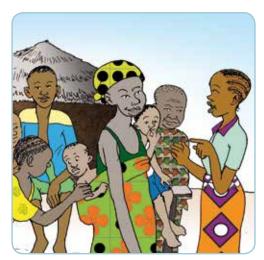


I cannot leave home. I have other children to care for.

How to help and calm the caregiver's fears:



Explain what will happen to her child at the health facility. Also, you will write a referral note to help get care for her child as quickly as possible.



Ask questions about who is available to help the family, and locate someone who could help with the other children.





I don't have a way to get to the health facility.



I know my child is very sick.
The nurse at the health facility
will send my child to the
hospital to die.
Many people die in the
hospital...!



In advance, you may need to help community leaders identify ways to find transport for families. For example, the community could make a cycle rickshaw to use in an emergency. Or arrange with somebody who has a bicycle to take a patient at the health facility.



Explain that the CHW can accompany the patient to the facility. At the health facility /hospital they can diagnose the cause of the illness, with trained staff and medicines to help the child.



Transport difficulties add delay and any delay is dangerous for the illness.

Group discussion: What are the reasons that sick children in your communities do not arrive at the health facility on time? What new solutions could you help to find?

You and your community can help families solve some of the delays in taking children for care. What solutions have you found?

When you assisted the referral, were caretakers more willing to take their children to the facility?





Make sure that follow-up can be organised by CHWs

Your final objectives with this section:

CHWs attending your course will...

- Know how to improve their relationships with health workers at the nearest health facility.
 - Be organised for the follow-up of sick children they have referred.

rainers will begin a discussion with CHWs about their relationship with health workers at the nearest health facility. These staff should be in contact with them, may supervise their work and may train them further if needed.

This relationship will also be useful in case a family does not keep a CHW informed about what happened to her child at the health facility.

On return from a health facility, a sick child has to be followed by a CHW who can identify whether the child is recovering well or not. The CHW needs to check whether the caregiver is able to implement the recommended home based care.

Even if the CHW lives far from the sick child, the follow-up should be organised at least once a week until the child is well.



Follow up the child on return at least once a week until child is well

[This dialog continues from page 27]

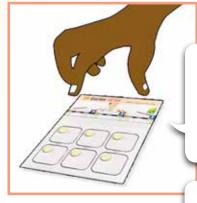


CHW: I was really worried when I saw you last. How is your baby? Mother: She was 2 nights in the hospital. Your treatment helped. On the way to the hospital, she began to get better.



CHW: She does not have any fever She looks better. How was the hospital?

Mother: They gave her injections there. They said the injections were for the pneumonia. She began to breathe better. Then they gave me some pills for my baby.



Mother: They told me I must give her all the pills until they are finished. Now she is eating.

CHW: Can I see the packet of the pills? Yes, they gave antibiotics and antimalarials. I see you have finished the antimalarials. How many times a day do you give her these antibiotics?

Mother: I give them 3 times a day, morning, noon and night. I have 4 more days left.

CHW: You must give them all to her, or the infection can come back. I am pleased that she is better. Please come to me if there is a problem. I will come to see you next week.

Mother: Thank you for coming. I should have come to you before she was in coma. I did not realise that a child looking asleep could be so ill.



CHW: I am pleased to help. Please make sure that you give her all the pills. If a danger sign reappears, we will need to take her again to the health facility.

Mother: Thank you very much.



Use good communication skills

[New dialog ...]

First morning..



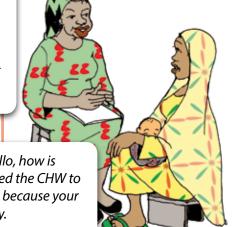
CHW: Hallo. May I come in? Mother: Of course.

CHW: I am your CHW. Your neighbour had a very sick child last month. Today she visited me and said she was worried about your child. Is this your first baby?

Mother: Yes. Almost 5 months... Sometimes he doesn't want to suck milk...

CHW: You are alone. Is your husband here?

Mother: My husband is away for the harvest. He will return home in one week. I do not know what to do, and am worried...





Neighbour: Hallo, how is your baby? I asked the CHW to come to see you because your husband is away.

Mother: Thank you. The CHW came this morning. It makes me feel I am not alone. She will come back tomorrow.



Mother: The baby is now sleeping. CHW: That is good. I am here to help. CHW: The baby seems to have a fever. For how long has the baby been feeding?

Mother: Since this morning.

CHW: Sometimes babies do not take the breast for a short while. If the child rejects milk all the time, please come to see me. When a child is not feeding at all, it can be serious. The baby might need treatment and hospital care.

	Sick Child Rec		_		.)	
Dat	re:/200(Day / Month / Year)	zniia a	ge 2 months u	ip to 5 years	CHW:	
Chil	ld's name: First Family		Age:_	_Years/	_Months	Boy / Girl
Car	egiver's name: F	Relati	i onship: Mo	ther / Fa	ther / Other	: <u> </u>
	dress, Community:		·			
1.	Identify problems					
	ASK and LOOK		ny DANGE r other pro refer	oblem to	SICK but N Sig	_
re	K: What are the child's problems? If not ported, then ask to be sure. YES, sign present → Tick → NO sign → Circle					
	Cough? If yes, for how long? days		Cough for or more	21 days		
	■ Diarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long?days.		Diarrhoea days or mo	ore		days AND
	■ IF DIARRHOEA, blood in stool? ■ Fever (reported or now)? If yes, started days ago.		Blood in st Fever for days or mo	last 7	no blood Fever (le days) in area	
	■ Convulsions?		Convulsion	ıs		
	■ Difficulty drinking or feeding?		Not able t	o drink		
	IF YES, □ not able to drink or feed anything?		or feed ar	nything		
	■ Vomiting? If yes, □ vomits everything?		Vomits eve	erything		
LO	OK:					
	■ Chest indrawing? (FOR ALL CHILDREN)		Chest indr	awing		
	 IF COUGH, count breaths in 1 minute:breaths per minute (bpm) ■ Fast breathing: Age 2 months up to 12 months: 50 bpm or more Age 12 months up to 5 years: 40 bpm or more 				□ Fast bre	athing
	■ Unusually sleepy or unconscious?		Unusually unconsciou			
	For child 6 months up to 5 years, MUAC strap colour:		Red on MU strap	JAC		
	■ Swelling of both feet?		Swelling o feet	f both		
	Decide: Refer or treat child (tick decision)		· ANY Danger to health		☐ If NO Do treat at l advise co	nome and

GO TO PAGE 2 ---



Child's name:		_ Age:					
(tick tre	ractions)	ANY Danger Sig r problem, refo health facility	er treat at home and				
If any danger:	sign, V ITLY to health facility:	If no dang	ger sign, t home and ADVISE on home care:				
□ Explain why	RRAL to health facility: child needs to go to health FIRST DOSE OF TREATMENT:	□ If Diarrhoea (less than 14	- orre car egirer - one pactors to take home.				
□ If Diarrhoea	If child can drink, giving ORS solution right away.	days AND no blood in stool)					
☐ If Fever, AND ☐ Convulsions or ☐ Unusually sleepy	☐ Give rectal artesunate suppository (100 mg) ☐ Age 6 months up to 3		□ Age 6 months up to 5 years—1 tablet (total 10 tabs) Help caregiver to give first dose now.				
or unconscious or □Not able to drink or feed anything □Vomits everything	years>100 mg ☐ Age above 3 years> 200 mg	☐ If Fever (less than 7 days) in a malaria area	 □ Do a rapid diagnostic test (RDT). PositiveNegative □ If RDT is positive, give oral antimalarial AL (Artemether-Lumefantrine). 				
□ If Fever , AND danger sign other than the 4 above	□ Give first dose of oral antimalarial AL. □ Age 2 months up to 3 years> 1 tablet □ Age 3 years up to 5	maiana area	☐ Age 2 months up to 3 years—1 tablet (total 6 tabs) ☐ Age 3 years up to 5 years—2 tablets (total 12 tabs) Help caregiver give first dose now, and 2 nd dose after 8 hours. Then give dose twice daily for 2 more days.				
☐ If Chest indrawing, or	years> 2 tablets □If child can drink, give first dose of oral antibiotic (amoxycillin tablet—250 mg) □Age 2 months up to 12 months	□ If Fast breathing	☐ Give oral antibiotic (amoxycillin tablet—250 mg). Give twice daily for 5 days: ☐ Age 2 months up to 12 months—3/4 tablet (total 7 1/2 tabs) ☐ Age 12 months up to 5 years—1 1/2 tablets (total 15 tabs) Help caregiver give first dose now.				
□ Fast breathing	> 1 tablet DAge 12 months up to 5 years> 2 tablets	☐ If Yellow on MUAC strap	□ Counsel caregiver on feeding or refer the child to a supplementary feeding programme, if available				
give fluids and conditions of the depth of with fever. Write a referror arrange transpother difficulties	child warm, if child is NOT al note. ortation, and help solve in referral. child on return at least once a	☐ For ALL children treated at home, advise on home care	□ Advise caregiver to give more fluids and continue feeding. □ Advise on when to return. Go to nearest health facility or, if not possible, return immediately if child □ Cannot drink or feed □ Becomes sicker □ Has blood in the stool □ Advise caregiver on use of a bednet (ITN). □ Follow up child in 3 days (schedule appointment in item 6 below)				

4. CHECK VACCINES RECEIVED

(tick □/vaccines completed, circle ■vaccines missed)

Advise caregiver, if needed: WHEN and WHERE is the next vaccine to be given?

5. If any OTHER PROBLEM or condition you cannot treat, refer child to health facility, write referral note.

Age	Vac	Date given	
Birth	□ ■ B <i>CG</i> □ ■ OPV-0		
6 weeks*	□ ■ DPT—Hib + HepB 1	□ ■ OPV-1	
10 weeks*	□ ■ DPT—Hib + HepB 2	□ ■ OPV-2	
14 weeks*	□ ■ DPT—Hib + HepB 3	□ ■ OPV-3	
9 months	□ ■ Measles	[Give OPV-4, if OPV-0 not given at birth]	

Describe	problem:
----------	----------

6	When to return	for FOLLOW UP	(circle): Monday	Tuesday Wednesday	Thursday	Friday Saturday	/ Sunday

7. Note on follow up:	☐ Child better—continue to treat at home. Day of next follow up:
	☐ Child is not better—refer URGENTLY to health facility.

□ Child has danger sign—refer URGENTLY to health facility.



Example of a Referral note for health facility staff

•			Relationship: Mother / Father / Other:			
Ad	ldress, Community:					
	The child has (tick □ sign, circle ■ no sign):		Reason for referral:	\mathbf{L}	Treatment given:	
	■ Cough? If yes, for how long? days		Cough for 21 days or more		Oral Rehydration	
	■ Diarrhoea (loose stools)?days.		Diarrhoea for 14 days or more		Salts (ORS) solution for diarrhoea	
	■ If diarrhoea, blood in stool?		Blood in stool	1		
	■ Fever (reported or now)? days.		Fever for last 7 days		Oral antimalarial AL	
	■ Convulsions?		Convulsions		for fever	
	■ Difficulty drinking or feeding?		Not able to drink or feed	1		
	If yes, □ not able to drink or feed anything?		anything	supposito		
	■ Vomiting? If yes, □ vomits everything?		Vomits everything		suppository for fever if convulsions,	
	■ Chest indrawing?		Chest indrawing		unable to drink.	
	IF COUGH, breaths in 1 minute:			1	vomiting, unusually	
	■ Fast breathing:			1	sleepy/unconscious	
	☐ Age 2 months up to 12 months: 50 bpm or more			I_{-}		
	☐ Age 12 months up to 5 years: 40 bpm or more ☐ Unusually sleepy or unconscious? For child 6 months up to 5 years, MUAC strap colour: red yellow green			-1□	Oral antibiotic	
			Unusually sleepy or unconscious		amoxicillin for chest indrawing or fast	
			Red on MUAC strap		breathing	
	■ Swelling of both feet?		Swelling of both feet			
An	y OTHER PROBLEM or reason referred:					

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Credits

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This manual for trainers and Community Health Workers is linked to the main course "Caring for the Sick Child with Danger Signs in the Community" which is part of the strategy called Integrated Management of Childhood Illness (IMCI).

However, this Manual concentrates specifically upon malaria and the Danger Signs for use of pre-referral treatment with rectal artesunate. It should be used in countries and areas where malaria is endemic, where young children are at risk of severe malaria, and where pre-referral treatment is part of national treatment guidelines.

It is really crucial that this training be provided to CHWs based in communities far from a health facility that can provide injectable treatment. The CHWs should be aware that this training helps them to save the lives of many children in their community.

CHWs will learn how to treat **and** refer these children to the health facility for diagnosis and specialised care.

Using the video provided with this Manual is also part of the approach.





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