INTEGRATED MANAGEMENT OF NEONATAL & CHILDHOOD ILLNESS

Abridge Course for Physicians

FACILITATOR GUIDE FOR

INPATIENT CLINICAL PRACTICE

World Health Organization

Ministry of National Health Services, Regulation And Coordination (MoNHSR&C)

unicef

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1. Inpatient Clinical Practice Objectives

Clinical practice is an essential part of the *Integrated Management of Childhood Illness* course. The course provides daily practice in using case management skills so that participants can perform them proficiently when they return to their own clinics. Participants learn about the skills by reading information in the modules or seeing demonstrations on videotape. They then use the information by doing written exercises or case studies. Finally, and most importantly, in clinical practice, participants practice using their skills with real sick children and young infants.

General Objectives: During clinical practice sessions, participants will:

* see examples of signs of illness in real children.
* see demonstrations of how to manage sick children and young infants according to the case management charts.
* practice assessing, classifying and treating sick children and young infants and counselling mothers about food, fluids, and when to return.
* receive feedback about how well they have performed each skill and guidance about how to strengthen particular skills.
* gain experience and confidence in using the skills as described on the case management charts.

Outpatient Sessions take place in outpatient clinics. Each small group of participants travels to an outpatient clinic each day and is supervised by its facilitators. The focus of the outpatient session is to provide practice of the case management process with sick children and young infants. In outpatient sessions, participants will:

- see sick children and young infants who have been brought to the clinic by their mothers.

practice assessing and classifying sick children and young infants according to the *ASSESS & CLASSIFY* and *YOUNG INFANT* charts.

practice identifying the child's treatment by using the "Identify Treatment" column on the *ASSESS & CLASSIFY* and *YOUNG INFANT* charts.

- practice treating sick children and young infants according to the TREAT and *YOUNG INFANT* charts.
- practice counselling mothers about food, fluids, and when to return according to the *COUNSEL* chart.
- practice counselling mothers of sick young infants according to the *YOUNG INFANT* chart.
- practice using good communications skills when assessing, treating and counselling mothers of sick children and young infants.

Inpatient Sessions take place on an inpatient ward. There each small group is led by the inpatient instructor. The focus of the inpatient sessions is to practice assessing and classifying clinical signs, especially signs of severe illness. During inpatient sessions, participants will:

- see as many examples as possible of signs of severe classifications from the *ASSESS & CLASSIFY* and *YOUNG INFANT* charts, including signs not frequently seen.
- practice assessing and classifying sick children and young infants according to the *ASSESS & CLASSIFY* and *YOUNG INFANT* charts, focusing especially on the assessment of general danger signs, other signs of severe illness, and signs which are particularly difficult to assess (for example, chest indrawing and skin pinch).

- practice treating dehydration according to Plans B and C as described on the *TREAT* chart.
- practice helping mothers to correct positioning and attachment for breastfeeding.

Participants practice the clinical skills as part of a case management process. The clinical practice skills are presented in the order they are being learned in the modules. In each clinical session, participants use the skills they have learned up to and including that day's session. This allows participants to gain experience and confidence in performing skills introduced in earlier sessions.

To make sure that participants receive as much guidance as possible in mastering the clinical skills, the outpatient facilitator and inpatient instructor give particular attention and feedback to the new skill being practiced that day. If any participant has difficulty with a particular skill, the facilitator or inpatient instructor continues working with the participant on that skill in subsequent sessions until the participant can perform the skill with confidence.

2. Schedule of Clinical Practice Sessions

Outpatient Sessions	Inpatient Sessions
Day 2	
Check for general danger signs Assess and classify cough or difficult breathing Assess and classify Diarrhea Assess and classify Ear Problem Assess and classify Fever and Measles	Check for general danger signs Assess and classify cough or difficult breathing Assess and Classify Diarrhea Assess and Classify Ear Problem Assess and Classify Fever and Measles
Day 3	
Check for Malnutrition, Anemia and Immunization status, Deworming and Vitamin A Supplementation	Check for Malnutrition, Anemia and Immunization status, Deworming and Vitamin A Supplementation
Day 4	
Treat Some Dehydration with ORS (Plan B) Treat Severe Dehydration (Plan C) Assess and Classify additional sick children	Treat Some Dehydration with ORS (Plan B) Treat Severe Dehydration (Plan C) Assess and Classify additional sick children
Day 5	
Assess and Classify Young Infant for PSBI, Local Infection, Jaundice and diarrhea, Assess and Classify additional sick children	Asses and Classify Young Infant for PSBI, Local Infection, Jaundice and diarrhea, Assess and Classify additional sick children
Day 6	
Assess Breastfeeding attachments and suckling. Assess and Classify young infants. Assess and Classify additional sick children	Assess Breastfeeding attachments and suckling. Assess and Classify young infants. Assess and Classify additional sick children

3. The Role of the Inpatient Instructor

There is one inpatient instructor who leads all the inpatient sessions. During the facilitator training, the inpatient instructor leads a session each day for a group of 4-8 facilitators (all the facilitators attending the training). During the course, the inpatient instructor leads a session each day for each small group of participants (for example, 4 sessions each day with up to 6 participants each).

As the inpatient instructor, your tasks include:

1. Each morning select children with appropriate clinical signs to be assessed by participants during the session. Prepare a Recording Form to show each child's history. Also identify any additional children with infrequently seen signs to show participants.
2. At the beginning of each session, demonstrate any new clinical skill, such as a new part of the assessment process.
3. Assign each participant to a child. Observe while participants assess and classify the children.
4. Conduct rounds to review the children which participants have assessed and classified. Have all participants practice assessing some signs, to give them more practice with severe signs and signs which are difficult to assess.
5. Show participants any additional children with infrequently seen signs.
6. Summarize the session. Reinforce participants for new or difficult steps that they did correctly and give them suggestions and encouragement to help them improve.
7. Record the cases seen by participants on a Checklist for Monitoring Inpatient Sessions. Also record clinical signs in additional cases which were seen by the group.

4. Qualifications and Preparation for the Inpatient Instructor

The Course Director should select an individual to be the inpatient instructor who has the following qualifications.

1. The inpatient instructor should be **currently active in clinical care** of children, if possible on the inpatient ward of the facility where the training is being conducted. (If the inpatient instructor is not on the staff of the facility, a staff assistant will be needed to help with arrangements and perhaps with translation.)
2. The inpatient instructor should have proven **clinical teaching skills**.
3. The inpatient instructor should be very **familiar with the integrated case management process** and have experience using it. He or she should have **participated in the course *Integrated Management of Childhood Illness*** previously as a participant or facilitator.
4. He or she should be **clinically confident**, in order to sort through a ward of children quickly, identify clinical signs that participants need to observe, and assess and classify children easily according to the *ASSESS & CLASSIFY* charts. He or she should understand the child's clinical diagnoses and prognosis so as to avoid confusing cases and critically ill children who need urgent care. He or she should be comfortable handling sick children and **convey a positive, hands-on approach**.
5. He or she must have **good organizational ability**. It is necessary to be efficient to accomplish all of the tasks in each clinical session, including reviewing 6 cases. The individual must be able to stay on the subject, avoiding any extraneous instruction or discussion. Although teaching 3 to 4 groups of participants requires only 3 to 4 hours, these are very active periods. He or she must be energetic.
6. The individual must be **outgoing and able to communicate** with ward staff, participants, and mothers. He or she should be a good role model in talking with mothers. (A translator may be provided if needed.)
7. It is helpful if the individual has **some training or experience in assessing breastfeeding** and teaching mothers to improve positioning and attachment for breastfeeding. Experience with neonates and 1-month-old infants is helpful.

8. If possible, in preparation for this role, the individual should work as an assistant to an inpatient instructor at another course to see how to select cases, organize the clinical sessions and interact with participants. Or another skilled inpatient instructor can join him or her during the first few days of the facilitator training or the course.
9. The inpatient instructor must be available 2-3 days prior to facilitator training, during all of facilitator training, and during all of the course. He or she must be willing and motivated to get up early each morning to select cases in the inpatient ward and prepare for the day's clinical sessions.
10. The inpatient instructor should be available to teach several other courses over the next year.

5. Before the Facilitator Training and Course Begin

1. With the Course Director, meet with the director of the paediatric inpatient ward. Explain to the ward director how inpatient sessions work. Describe what the inpatient instructor and the participants would do. Ask permission to conduct sessions in the ward. If there are separate malnutrition, new-born and sick neonate wards, meet with the directors of these wards.

   If several wards will be used, first meet with the hospital director to obtain permission, then with the ward staff responsible for each ward needed during the course. In each ward, make sure your arrangements include the senior responsible nurse, not just the doctor in charge.

   Ask the ward director for a clinical assistant. This should be someone who works on the ward full time. Ask the director to assign the clinical assistant to come at the time of the early morning preparations (usually at 6:00 am or 7:00 am depending on the schedule). Ask for a translator to help interview mothers in the early morning, if needed. (It will often be necessary to provide a stipend to this individual.)

2. Visit the ward. See how the ward is laid out, the schedule of admissions, meals, etc. Find out times patients are available or not available.
3. From this information, plan a possible schedule for the clinical sessions in the inpatient ward:

a. during facilitator training (one group of up to 8 facilitator trainees for a one-hour session each day) and
b. during the course (1 to 4 groups of up to 6 participants each; one-hour session for each group each day).

4. Meet with the Course Director to set the schedule for inpatient and outpatient sessions, so each group will visit one outpatient clinic and the inpatient ward each day.
5. Study this guide to learn or review exactly what you should do to prepare for and conduct inpatient sessions. Visit the inpatient ward to plan how and where you can carry out your tasks.
6. Obtain necessary supplies for instruction. These include:

- Sick Child Recording Forms
- Young Infant Recording Forms
- 6 clipboards and/or sheet protectors
- String or tape to fasten clipboards to foot or head of bed
- Highlighter pens
- Thermometers
- Scales for weighing children and infants
- Cups, spoons and clean water (for offering fluid to assess thirst)
- Supplies for treating dehydration according to Plan B and Plan C

Find a place to hang the case management charts. If it is not possible to hang all four charts, hang *ASSESS & CLASSIFY THE SICK CHILD* in the paediatric ward. Hang the *YOUNG INFANT* chart in the neonates' section.

7. Meet with the Course Director to review your responsibilities and your plans for conducting the inpatient sessions.

8. Brief any staff that will be in the inpatient ward about what you will be doing, and the training sessions that will take place there.
9. As a trial run, practice what you will need to do on the first morning, that is, select at least 6 children with clinical signs appropriate for the session and prepare Recording Forms for them. Then show these to the Course Director.
10. Supplement medical supplies of the inpatient ward if necessary. You should ensure that treatment of children meets or exceeds minimal standard of care. See Annex A.
11. During the first few days of the facilitator training, select cases and conduct the inpatient sessions with supervision and feedback from the Course Director or an experienced inpatient instructor. This should allow you to obtain experience in this role and to work out any problems, before the course and heavier teaching load begins.
12. Before the course begins, the Course Director will teach you how to use the Checklist for Monitoring Inpatient Sessions. See Annex B.

6. General Procedures: How to Prepare Each Morning

1. Early in the morning on the day of the clinical session, examine all children admitted to the paediatric wards to see if their signs are appropriate for the clinical session. This must be done in the morning as the clinical condition of hospitalized children can change very rapidly, even overnight.
2. Identify children that have the signs relevant to the objectives of the session for that day. Identify fresh cases, that is, cases that arrived within the previous 1-3 days. Their history should be still valid so that it matches their current classifications. Patients with unambiguous clinical signs should be used for demonstration. This is particularly important for chest indrawing where participants learn that, if they are not certain, chest indrawing is not there.
3. Identify children with infrequently seen signs. Because these signs are infrequently seen, you want to show them to participants whenever there is an opportunity, and not wait until the day they are studied. Though children with these signs may not be assigned to participants, you will show the signs to participants at the end of the session. These signs include:

Sick Children 2 months up to 5 years		
○ stridor in a calm child	○ measles rash	○ severe palmar pallor
○ very slow skin pinch	○ mouth ulcer	○ corneal clouding
○ stiff neck	○ Tender swelling behind ear	○ Pus draining from eye
Young infants 1 week up to 2 months		
○ severe chest indrawing	○ grunting	○ bulging fontanelle
○ not able to feed, no attachment at all, or not suckling at all	○ red umbilicus or draining pus	○ problems with attachment or suckling
○ less than normal movement	○ umbilical redness extending to the skin	○ many or severe skin pustules
○ thrush	○ nasal flaring	○
Treating local infections		
○ Treating eye infection with tetracycline eye ointment	○ Drying the ear by wicking	○ Treating skin or umbilical infection or thrush in young infants
	○ Treating mouth ulcers	

These signs are listed on the last page of this guide, for easy reference.

4. Ask the permission of the caretakers/parents to allow their children to be seen by participants that day. Try to arrange that the children will be in their beds during the sessions.
5. Select 6 cases who together have an appropriate variety of signs for participants to assess/classify in the sessions that day plus any other which provide good demonstrations of clinical signs. (Select one case per participant. Select 6 if there will be 6 participants in a group. If the group is smaller, select fewer.) It is important to have a separate patient for each participant to assess and classify during the session. Select children so that there are differing combinations of signs present, resulting in different classifications. Also select any additional children with infrequently seen signs that you will show to participants, or with the signs you are emphasizing during that day's session.
6. Keep a list with brief notes on each of these cases for your own reference during the session. Note the child's name, age, (location in the ward if necessary), and positive signs. However, keep in mind that clinical signs can change rapidly in very ill children from one session to the next.
7. Partially complete a Recording Form for each of the selected children and post it on the child's bed. Obtaining and recording the history in this way will prevent repetitive questioning of mothers and will expedite the assessment and classification.

How to Prepare the Recording Form:

- Highlight the top section of the form: Child's name, age, weight, temperature and main problem. Fill in this information. Make sure the child's weight and age are recorded. If these are not available from the patient chart, weigh the child and/or take the temperature.
- Highlight all main symptom questions to be covered that day plus their "Ask" questions.[1] Fill in this information based on the mother's responses. (Though occasionally you may need to make up some information, it is better not to fabricate history to avoid confusing participants if they interview the mother.) Do not fill in any information about the child's additional clinical signs or classifications. These will be determined by the participants when they examine the child.
- Draw a line where you want the assessment to stop, or fold under that part of the Recording Form. See the example form which has been prepared as described above.
- Put the form on a clipboard or in a plastic sheet protector and tape or tie it to the foot or head of the bed. Remove or turn over any hospital records that are on or near the bed so that participants cannot see them.
- Mark the beds of any additional children that you plan to show to participants, for example, by posting a coloured card at the foot of the bed. This will help you locate these children easily.

An example of a Recording Form prepared for an inpatient session

[1] In the evening before each session, highlight the relevant items on about 10 copies of the form, that is, highlight the top section of the form and all the main symptom questions to be covered that day plus their "Ask" questions. The highlighting will help you work quickly as you prepare Recording Forms for the selected children in the morning.

IMNCI Case Recording Form: MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

ID No.**009**

Name: **Faheem** Age: 10 Months Weight 8 Kg Temperature 38.5^{0}C_____ ^{O}F , Height/Length(cm)_____

ASK What are the child's problems? Diarrhea sine 3 days, blood in stool Initial visit? ✓ Follow up visit?_____

ASSESS (Circle all signs present) **CLASSIFY**

CHECK FOR GENERAL DANGER SIGNS

LETHARGIC OR UNCONSCIOUS
NOT ABLE TO DRINK OR BREASTFEED
CONVULSIONS
CONVULSING NOW
VOMITS EVERYTHING
ANY GENERAL DANGER SIGN PRESENT YES___ NO__✓_ (remember to use when selecting classification)

DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING? YES____ NO__✓__

For how long? ____ Days
Look and listen for stridor
Look and listen for wheeze
Count the breaths in one minute. (child must be calm) _____ breaths per minute.
Fast breathing? YES____ NO____

DOES THE CHILD HAVE DIARRHOEA? YES__✓__ NO____

For how long? _3___ Days
Is there blood in the stools? YES__✓__ NO____
Pinch the skin of the abdomen. Does it go back:
Very slowly (longer than 2 seconds)
Slowly
Look at the child's general condition. Is the child:
Lethargic or unconscious
Restless or irritable
Offer the child fluid. Is the child:
Not able to drink or drinking poorly?
Drinking eagerly, thirsty?

DOES THE CHILD HAVE FEVER? (by history/feels hot/temperature 37.5C or above) YES__✓__ NO____

For how long? __3__ Days
If more than 7 days, has fever been present every day?
Has child had measles within the last 3 months
Decide malaria risk High____ Low____ No____
Malaria transmission in the area
YES____ NO____
Transmission season = YES____ NO____
In non or low endemic areas
travel history within the last 15-days to an area
where malaria transmission occurs
YES____ NO ____
Look or feel for stiff neck.
Look for runny nose
Look for signs of MEASLES
Generalized rash ***AND***
One of these: cough, runny nose, or red eyes
Look for any other causes of fever
Look for signs and symptoms of DENGUE FEVER; if suspected do tourniquet test
(if yes, use the relevant treatment instructions)
Do a malaria test, if No general danger sign in all cases in
High malaria risk or No obvious causes of fever in low
Malaria risk:
Test POSITIVE? P. falciporium P. vlvax NEGATIVE?

If the child has measles now or within the last 3 months:
Look for mouth ulcers If YES are they deep and extensive?
Look for pus draining from the eye
Look for clouding of cornea

DOES THE CHILD HAVE AN EAR PROBLEM? YES__✓__ NO____
Is there severe ear pain?
Is there ear discharge? If Yes, for how long? ____ Days
Look for pus draining from the ear.
Feel for tender swelling behind the ear.

THEN CHECK FOR ACUTE MALNUTRITION AND ANAEMIA
Look for oedema of both feet
Determine WFH/L z-score:
Less than -3 Between -3 and -2 -2 or more
Child 6 months or older measure MUAC____ mm
Look for palmar pallor:
Severe palmar pallor Some palmar pallor No palmar pallor

If child has MUAC less than 115 mm or WFH/L less than -3 z-score
Is there any medical complication: General Danger Sign?
Any Severe Classification? Pneumonia with Chest Indrawing?
Child 6 months or older, Offer RUTF to eat. Is the child:
Not able to finish? Able to finish?
Child less than 6 months Is there a breastfeeding problem?

CHECK THE CHILD'S IMMUNIZATION, VITAMIN-A AND DEWORMING STATUS

OPV-I *Pentavalent–I Pneumococcal – I Rota 1	OPV-II *Pentavalent–II Pneumococcal – II Rota 2	OPV-III *Pentavalent–III Pneumococcal – III IPV	Measles I	Measles-II**	Vitamin A	
					Mebendazole	

*Pentavalent: DPT+HepB+Hib ^If the child is seen b/w 12-15 months of age,
**2nd dose of measles can be given if one month passed since the Measles 1st dose is given

Return for next immunization on:

_____
(DATE)

ASSESS THE CHILD'S FEEDING if the child is less than 2 years old, has **MODERATE ACUTE MALNUTRITION, ANAEMIA.**
Do you breastfeed your child? YES____ NO____ If YES how many times in 24 hours? ____times. Do you breastfeed during the night?
Does the child take any other foods or fluids? YES____ NO____
If YES what foods or fluids?
How many times per day? ____times What do you use to feed the child?
If MODERATE ACUTE MALNUTRITION: How large are the servings?
Does the child receive his own serving? YES____ NO____ Who feeds the child and how?
During this illness, has the child's feeding changed? YES____ NO____
If YES, how?

FEEDING PROBLEMS

ASSESS OTHER PROBLEMS:	ASK ABOUT MOTHER'S OWN HEALTH?	FOLLOW UP:

IMNCI Case Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT -- BIRTH UP TO AGE 2 MONTHS

ID No._____

Name: _____ Age: _____ Sex: ____ Weight: _____ Temperature: _____°C

Height?Length(cm)_____

ASK: What are the infant's problems? _____ Initial visit? ___ Follow-up Visit? ___

ASSESS (Circle all signs present)	**CLASSIFY**
CHECK FOR POSSIBLE VERY SEVERE DISEASE and LOCAL INFECTION - Is the infant having difficulty feeding? - Has the infant had convulsions? · Count the breaths in one minute. _____breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? · Look for severe chest indrawing · Fever (temperature ≥ 38°C) or body temperature below 35.5°C · Look at young infant's movements. Does the infant move on his/her own? Does the infant move only when stimulated? Does the infant not move at all? · Look at umbilicus. Is it red or draining pus? · Look for skin pustules.	
CHECK FOR JAUNDICE - When did the jaundice appear first? · Is skin yellow? · Are the palms or soles yellow?	
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes __ No ____ If yes, ASK: · For how long? _____ Days ·Look at the young infant's general condition. Does the infant move only when stimulated? Does the infant not move at all? Is the infant restless and irritable? Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?	
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE - Is the infant breastfed? Yes _____ No _____ - If Yes, how many times in 24 hrs? _____ times - Does the infant receive any other foods or drinks? Yes ___ No ___ If Yes, how often? _____ times - If yes, what do you use to feed the infant? - Determine weight for age. - Very low weight for age (< 1.5 kg or < -3 Z score) ___ Low weight for age____ NOT low weight for age ____ - Look for ulcers or white patches in the mouth (thrush)	
If the infant has **any difficulty feeding,** is **feeding < 8 times in 24 hours,** is **taking any other food or drinks,** or is **low weight for age, AND has no indications to refer urgently to hospital: ASSESS BREASTFEEDING**: – Has the infant breastfed in the previous hour? – If infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes – If the infant was fed during the last hour, ask the mother if she can wait and tell you when the infant is willing to feed again. - Is the infant able to attach? To check attachment, look for: - More areola seen above than below the mouth Yes ___ No ___ - Mouth wide open Yes ___ No ___ - Lower lip turned outward Yes ___ No ___ - Chin touching breast Yes ___ No ___ *Good attachment_____ Poor attachment_____* *No attachment at all ____* – Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? *Suckling effectively____ not suckling effectively_____* *not suckling at all____*	
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS: Circle immunizations needed today. BCG Hep B-0 OPV-0 Pentavalent-1 OPV-1 Rotavirus-1 PCV-1	Return for next immunization on:
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

7. General Procedures: Conducting the Inpatient Session

Each inpatient session will last about 1 hour. Allow about 20 to 30 minutes for the participants to assess and classify their assigned patients, and about 30 minutes for review of participants' assessments and demonstration of clinical signs. It is necessary to keep up the pace of the review session.

1. Tell participants the objectives of today's inpatient session. (For the first few days of the course, the objectives of the outpatient and inpatient sessions are the same, but later in the course they are different.)
2. Demonstrate for the participants any new part of the assessment process. Before participants practice a clinical skill for the first time in the inpatient ward, they should see a demonstration of it done correctly. Explain and demonstrate the clinical skill exactly as you would like participants to do it.
3. Assign each participant a case to assess and classify. Tell them how much of the assessment and classification you expect them to do (for example, through assessment and classification of diarrhoea.) Be sure that each participant has a blank Recording Form to use.
4. Observe while the participants assess and classify the cases. Be available to assist or answer questions. Make sure they are circling the child's signs on the Recording Form and writing classifications. Encourage them to refer to the chart booklet or to the chart when they classify the child.

If you see a participant involved in a long discussion with the mother, encourage him to use the history provided and to concentrate on the assessment of clinical signs and the classification.

5. Make sure participant work is not interfering too much with the ward routine, especially provision of treatment. You or your assistant should make sure families understand what is going on.
6. Conduct rounds with the group of participants:

▪ Gather the participants and take the group to the bed of the first case. Ask the assigned participant to present the case, describing the signs found and the classifications. (Do not comment now on whether the assessment is correct). Ask the participant to refer to the classification box in his chart booklet to explain how he determined the classification. This is important to do throughout the sessions since errors of classification occur almost as frequently as errors of assessment.

* Ask all the participants to assess certain signs, for example, to determine if chest indrawing is present or absent. (Select certain signs which should be learned or reinforced in the session. Thus, by the end of the session, children with and without the sign are seen by participants, so the distinction is clear.) Give them a chance to examine for the sign, for example, to stand near the child to look for chest indrawing, or to pinch the skin. (The instructor needs to assess the sign at the same time as the participants, since signs may change over time.)

  If necessary, ask participants to write their individual assessment on a slip of paper and hand or show it to you, so you are sure they are giving their own assessment, not influenced by others or fear of embarrassment. These problems will vary by group. Be aware that some people are quite shy and do not like to have a joke made if they have made an error. With slips of paper, it is possible to talk about agreement of the group without singling out the wrong answer of any one participant. You will know which participants are assessing correctly and which need more practice.

* Tell the correct assessment of the sign. If all participants did not assess it correctly, demonstrate or let participants assess again. Find out **why** they decided differently - **where** they were looking, when they

think breathing in or out is occurring, or other relevant factors. Treat their opinions with respect. Convey the fact that **you** might be wrong. "Let's look again." "Now is it more clear in this position?" "Abdi was correct to doubt chest indrawing if he was not sure. Let's look in a different position."

Make sure the atmosphere is supportive, so participants do not feel bad if they get a sign wrong. You may say, "It takes awhile to learn these signs. Do not feel bad if you make a mistake -- we all will."

* Ask the participant to tell the child's classifications again. If your assessment of any sign was different from his initial assessment, allow him a chance to decide how the classification should change.

* Summarize the case so that participants understand the correct assessment of the child's signs and classifications. Thank the participant and praise him for any new or difficult tasks that he did correctly. Then move the group to the next case and review the case in the same way.

  When conducting the rounds of participants' cases, start with the cases whose classifications are simple (such as a child with no general danger signs and fast breathing -- classification PNEUMONIA). Cases with more complex classifications can be presented later, for example, a second case could have no general danger signs and fast breathing with chest indrawing (classification PNEUMONIA), or could have general danger signs and chest indrawing (classification SEVERE PNEUMONIA OR VERY SEVERE DISEASE). By having participants see children with increasingly complex classifications, a variety of signs and assessments can be demonstrated to participants.

7. If in the early morning additional children were identified with signs that are infrequently seen (grunting, stridor, severe pallor, etc.), demonstrate these signs to participants at the end of the session. This will ensure that participants will get to see infrequently seen signs, whenever the opportunity arises.

   For certain signs such as chest indrawing and palmar pallor, it is important to show children with and without the sign. Putting several children's hands together who have no, some and severe palmar pallor can be very helpful. It is important that participants avoid overcalling signs in normal children. Therefore, include children with noisy breathing from blocked nose, no palmar pallor, etc. Participants need to become confident in saying a sign is not there, not just in recognizing the abnormal signs.

8. At the end of the clinical session, summarize the important signs and tasks covered in the session and refer to common problems that participants encountered (for example, missing chest indrawing, or errors of classification). Ask participants to keep their

   Recording Forms so that they can refer to them to complete their Group Checklist of Clinical Signs.

   Summarize for the participants the important signs and classifications that they saw in the session. Reinforce them for new and difficult steps that they did correctly and give them suggestions and encouragement to help them improve.

9. After the session, record on the Checklist for Monitoring Inpatient Sessions the cases seen by the participants.

10. During the course, participate in the meeting of facilitators at the end of each day. Report to the facilitators and the Course Director on the performance of each group at the inpatient session that

day. Discuss whether participants are seeing all the clinical signs and classifications. Determine if there are children with certain signs that you should try to locate and include in the next day's cases.

8. Specific Instructions for Each Day's Inpatient Session

On the following pages are summaries of each session which list the specific instructions for that day. Each summary table lists how to prepare, the participants' objectives, the instructor's procedures, and what to do to conclude the session. For example, since different clinical signs and classifications are emphasized each day, "To Prepare" tells what children to choose for the participants to assess and classify that day.

Following the summary table for some days, there are additional notes about preparing for or conducting that particular session.

After studying this guide and after a day or two of teaching inpatient sessions, you will know how to conduct the session each day as described in the previous section, "General Procedures: Conducting the Inpatient Session." Then you may need only to refer to the appropriate summary for each day.

9. DAY 2: INPATIENT SESSION

General Danger Signs - Cough or Difficult Breathing, Assess and Classify Diarrhoea, Fever, Measles and Ear Problem.

To Prepare	Review the "General Procedures: How to Prepare Each Morning" and "Conducting the Inpatient Session." Choose children with general danger signs and/or cough or difficult breathing. Include a child with stridor if possible. Identify any children with infrequently seen signs.
Participant Objectives	- Assess children for general danger signs. Assess and classify cough or difficult breathing, diarrhoea, - ear problem, fever and measles. - Record findings on the Recording Form; use the chart to choose classifications; record them. Obtain additional practice assisting chest indrawing, skin - pinch, sunken eyes, neck stiffness and ear problem.
Instructor Procedures	1. Explain to participants how inpatient sessions will work. 2. Demonstrate the assessment of a child up to fever and measles. 3. Show how to use the information on the child's history which is already written on the Recording Form. 4. Assign participants to patients. Observe and assist as needed while participants assess and classify. 5. Show any children with infrequently seen signs
At the end of the session	Summarize the session with participants. Complete the Monitoring Checklist.

Explanation of how inpatient sessions will work:

Explain that the purpose of seeing patients in the inpatient ward is to give participants several opportunities to see and practice assessing as many patients as possible. In addition, children in the inpatient ward are more likely to have severe signs than the children who come to outpatient clinics. Seeing inpatients will give participants more experience with children with severe signs and classifications.

The inpatient setting is not like the clinic setting where participants usually work. The children in the inpatient ward have already been assessed by staff and are receiving treatment. However, so you (each participant) can get practice, when you are assigned a case, assess and classify that child as if it is an initial visit. Write the findings on a clean copy of the Recording Form. Use the information about the child's history which is recorded on the Recording Form at the foot of the child's bed. Look, listen and feel to assess the child's signs. Classify the child and record the classification on the form.

When everyone has finished their cases, there will be rounds, so that all of you can see all the cases. The group will review the assessment findings and classifications. This is different from clinical rounds you may have experienced. No one will lecture. You need only to present briefly, just as you do to your outpatient facilitator. You should not feel shy. We are all learning.
Your interaction with the mother of your assigned case here will be different than with a mother who comes into your clinic. You may not be asking this mother questions about her child and will not discuss treatment as you would with a mother in your clinic. Remember that when you are managing sick children in your clinic, your communication with the mother is very important. You should practice all your communication skills when you care for children in the **outpatient** session each day. Of course, you may speak to a mother here, and if you do, you should be kind to her and listen carefully to her answers.

If a child suddenly becomes much sicker, please be sure to alert the ward staff.

At this session, the same order of presentation of cases should be followed. Start with children with simple classifications such as fast breathing alone or diarrhoea with no or some dehydration, followed by cases who have various combinations. Children with general danger signs should be presented last. In a large hospital, there may be a separate ward where children with mastoiditis and chronic ear infection are treated.

Special instructions for teaching chest indrawing:

Do not encourage participants to call chest indrawing when only very subtle indrawing is observed. Teach them that "When in doubt -- it is not there." Chest indrawing should be definite to be called chest indrawing.

If possible, show a child who has chest indrawing when breastfeeding or because his nose is blocked. Demonstrate that when he finishes feeding or his nose is clear, chest indrawing goes away.

10. DAY 3: INPATIENT SESSION
Assess and Classify Sick Children

To Prepare	Select children with signs of Anaemia and Malnutrition with any of the main symptoms, preferably children with signs that participants need to practice; such as lethargy or unconsciousness, chest indrawing, stridor, drinking eagerly/ thirsty, drinking poorly, restless and irritable, sunken eyes, show pinch test slow or very slow, palmar pallor, decreased mid upper arm circumference and low weight for height.
Participant Objectives	- Assess and classify a sick child up to Malnutrition, - Anaemia and Immunization status. - Record findings on the Recording Form; use the chart to choose classifications; record them. - Obtain additional practice assessing some difficult signs.
Instructor	1. Emphasize assessment and classification of Nutritional Status and Immunization, Vit. A supplementation and deworming in the session today. 2. Assign participants to patients. Each participant should check for malnutrition and anaemia in addition to all the previous steps learned. Observe and assist as the needed.
At the end of the session	Summarize the session with participants. Complete the Monitoring Checklist.

There may be a separate malnutrition ward which should be visited to see children with clinical signs of malnutrition or anaemia. Putting several children's hands together who have no, some and severe palmar pallor can be very helpful. You may also find children with a chronic draining ear in the malnutrition ward.

Choose children so that slow skin pinch, very slow skin pinch and other signs of some or severe dehydration will be shown. Also choose children so that the signs and symptoms demonstrated the previous day can be demonstrated again.

When you conduct rounds, first review the cases with only cough or difficult breathing or with only diarrhoea, if possible. Then the cases with various combinations of diarrhoea and difficulty breathing and/or general danger signs can be presented.

11. DAY 4: INPATIENT SESSION

Plan B & C Assess and Classify Sick Children.

To Prepare	Choose children with dehydration who are being treated according to Plan B or Plan C. Also choose children with different combination of clinical signs and classifications, or with particular signs that participants need to practice if time allows.
Participant Objectives	- Observe children being rehydrated with Plan B or Plan C. If possible, assist in giving the treatment. - Become familiar with the form to monitor IV or NG fluid in children receiving Plan C. - Reassess Dehydration - Record findings on the Recording Form; use the chart to choose classifications; record them.
Instructor Procedures	1. Take participants to see some children who are receiving treatment for dehydration. 2. Assign one pair of participants to sit with each child to observe treatment. 3. Ask participants to reassess the dehydration. 4. Have the participants assess any signs that they need to practice such as chest indrawing and palmar pallor. 5. Show any children with infrequently seen signs.
At the end of the session	Summarize the session with participants. Complete the Monitoring Checklist.

Choose children so that slow skin pinch, very slow skin pinch and other signs of some or severe dehydration will be shown. Also choose children so that the signs and symptoms demonstrated the previous day can be demonstrated again. There may be a Diarrhoea Treatment Unit or diarrhoea ward which should be visited to see children receiving treatment for dehydration.

At the facilitators' meeting, discuss with the facilitators whether participants were able to see dehydrated children at the outpatient sessions today and whether they are likely to see them tomorrow. Discuss whether you should try to emphasize treatment of dehydration in the inpatient session tomorrow or should provide more practice assessing and classifying children with other particular signs or classifications. Note the signs that you should look for tomorrow morning as you prepare for tomorrow's session.

On Day 4 -- If participants have not yet had experience with treatment of local infection, have them watch a demonstration of treatment of eye infection with tetracycline ointment or treatment of mouth ulcers with half-strength gentian violet.

At the end of the session on Day 4, tell participants that this is the last session dealing with sick children. In the rest of the inpatient sessions participants will work with young infants.

12. DAY 5: INPATIENT SESSION

Assess and Classify Bacterial Infection, Jaundice and Diarrhoea in Young Infants

To Prepare	Choose young infants with signs of bacterial infection, jaundice, or diarrhoea. Choose some normal young infants and some young infants with as many of the signs of bacterial infection as possible.
Participant Objectives	- Assess and classify a young infant for bacterial infection and diarrhoea. - Record findings on the Young Infant Recording Form; use the *YOUNG INFANT* chart to choose classifications; record them. - Obtain additional practice assessing some signs.
Instructor Procedures	1. Demonstrate assessment of a young infant for possible bacterial infection, jaundice and diarrhoea. 2. Demonstrate infants with as many signs of bacterial infection as available: severe chest indrawing and mild chest indrawing; nasal flaring; bulging fontanelle; umbilical redness at the tip only and redness extending to the skin of the abdomen; many and severe pustules and some skin pustules; normal and less than normal movement. Also show a normal infant. 3. Assign participants to young infants. Observe and assist as needed while participants assess and classify. 4. Conduct rounds. Have all participants assess as many of the signs above as possible. 5. Show any young infants with infrequently seen signs.
At the end of the session	Summarize the session with participants. Complete the Monitoring Checklist.

Look for young infants throughout the hospital, in any areas where you may find young infants age 1 week up to 2 months (age 7 days to 59 days). Check in areas such as a newborn nursery, neonatal unit, maternity ward which may have some infants one week of age or older, and the pediatric ward. If necessary, compromise and use newborns less than 1 week old to show signs.

This is a particularly important session. If there are many young infants in the inpatient ward and very few or none in the outpatient clinic, make this session longer, if logistically feasible.

13. DAY 6: INPATIENT SESSION

Assess Breastfeeding and Assess and Classify Young Infants

To Prepare	Choose young infants with signs of bacterial infection, jaundice, diarrhoea, low birth weight or feeding problems to demonstrate as many of the clinical signs as possible. Also choose some normal young infants. Identify any young infants with infrequently seen signs.
Participant Objectives	- Assess a young infant breastfeeding. - If possible, counsel the mother to improve positioning and attachment for breastfeeding. - Assess and classify a young infant for bacterial infection, diarrhoea, jaundice, low birth weight and feeding. - Record findings on the Young Infant Recording Form; use the chart to choose classifications; record them.
Instructor Procedures	1. Demonstrate a normal young infant feeding well, emphasizing the signs of attachment and suckling. 2. Demonstrate a young infant with feeding problems. If possible, demonstrate counselling the mother to improve positioning and attachment for breastfeeding. 3. Assign participants to young infants. Ask them to assess and classify the young infant. (Ask them to assess only breastfeeding if the infant is less than 1 week of age.) Observe and assist as needed. 4. Conduct rounds. Have all participants assess as many of the signs present as possible. 5. Show any young infants with infrequently seen signs.
At the end of the session	Summarize the session with participants. Complete the Monitoring Checklist.

Look for young infants throughout the hospital, in any areas where you may find young infants age 1 week up to 2 months (age 7 days to 59 days). Check in areas such as a newborn nursery, neonatal unit, maternity ward which may have some infants one week of age or older, and the paediatric ward.

It may be necessary to use new-born premature infants to demonstrate poor attachment and suckling and correction of positioning. New mothers may provide opportunity for practice correcting positioning and attachment.

ANNEX A
MINIMAL STANDARD OF CARE IN THE INPATIENT WARD

Inpatient care should be delivered competently. It is very distressing to participants to see mismanagement of inpatients or neglect due to lack of the most basic inpatient supplies. Although participants in the course are not learning inpatient management, they are learning to refer children with severe illness to an inpatient facility in order to reduce mortality. Many have some experience managing inpatients.

Ideally, the paediatric ward should practice standard case management of acute respiratory infections (ARI) and diarrhoeal diseases. The ward should also follow the recommendations provided for the management of severe malaria and severe malnutrition.[2] [2]

Appropriate antibiotics and antimalarials should be used correctly; intramuscular (IM) antibiotics should be given routinely for severe pneumonia, rather than intravenous (IV); antibiotics should not be used to treat coughs or colds; and good nursing procedures should be followed. Children with severe malnutrition, severe malaria, and meningitis should be treated to prevent hypoglycaemia. Immunizations should be available and measles immunizations should be given to all unimmunized children over 6 months if cases are being admitted. Rectal diazepam and/or other appropriate anticonvulsants should be rapidly available for the management of convulsions, and the staff should be trained in the appropriate management of convulsions. Children should be monitored on a regular basis. Basic cleanliness should be maintained.

It should be possible for a mother to stay with a sick infant or child to breastfeed. She should be granted 24-hours access to the ward. When a child is critically ill and unable to suckle, the staff should show the mother how to maintain her milk supply by expressing her breastmilk. They should help her re-establish breastfeeding as soon as the child gets better.

Many wards are filled with children who did not need to be hospitalized in the first place or are ready for discharge. Many clinicians inappropriately hospitalize children with non-severe pneumonia and other conditions that can be managed as an outpatient. It is preferable that training take place in a ward where this is not the case.

It may be possible, in some settings, for the inpatient instructor and the Course Director to work with the responsible ward staff in advance of the course to improve ward procedures.

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[2] Standard case management of inpatients is described in:

* *Acute Respiratory Infections in Children: Case Management in Small Hospitals in Developing Countries. A* manual *for doctors and other senior health workers* (1990) WHO/ARI/90.5.
* *The Treatment of Diarrhoea, A manual for physicians and other senior health workers*. WHO/CDR/95.3.
* *Management of the child with severe malnutrition: a manual for physicians and other senior health* workers. WHO/NUT.
* Gilles, H.M., *Management of severe and complicated malaria: A practical handbook*. Geneva, WHO, 1991.
* *Technical Basis for the Case Management of Measles*. WHO/CDR and EPI, 1995.

WHO is also developing integrated guidelines for the inpatient management of sick children.

Essential Paediatric Inpatient Supplies

For IM/IV administration:

- Quinine
- Artemether
- Ampicillin
- Gentamicin
- Chloramphenicol

For oral administration:

- Paracetamol
- Iron syrup/tablets
- Zinc Suspension
- Multivitamin / Mineral supplements
- Vitamin A
- ORS
- First and second line oral antimalarials and antibiotics for pneumonia and dysentery
- Mebendazole

Oxygen by cylinder or concentrator plus oxygen administration equipment

Nasogastric tubes

Disinfectant to wash used NG tubes, oxygen tubing, etc.

ORT corner supplies: Clean water ORS packets

Cups and

- spoons
- Containers for mixing ORS solution

IV equipment including ways to regulate infusion rate of IV and beds or tables with wires above for hanging bottles of IV fluid

IV fluids including Ringer's Lactate Solution and Normal saline (N/S)

Cotton swabs and alcohol or spirits

Thermometer

Scale which can be zeroed and weighs accurately

Appropriate food for tube feeding (for severely malnourished children, and children not able to feed)

KCl solution - for IV and oral use

Availability of safe blood transfusion

Sterile needles and syringes

Food to give to patients on Plan B and other patients

ANNEX B - MONITORING OF INPATIENT SESSIONS

You may be asked to record information on the participants' performance on the Checklist for Monitoring Inpatient Sessions. Refer to the checklists which follow these instructions as you read about how to use them.

There is a checklist to use in sessions with sick children (age 2 months up to 5 years) and a checklist to use in sessions with young infants. Each checklist is arranged so you can record results for 2 groups of up to 6 participants on one sheet each day.

Complete the checklist as you review cases or immediately after you have worked with the group in the inpatient ward, so you can recall each participant's performance. You might ask the clinical assistant to help fill the checklist.

To use a checklist:

1. Record the group and each participant's initials under his group at the top. For each participant, report on the child that the participant assessed, classified and presented to the group (one child per participant).

2. Tick (✓) each classification the child actually has (according to your assessment).
   Tick the **true** classification, not the classification assigned by the participant if he is in error. If the participant sees or participates in Plan B or C treatment, tick this also.

3. If the participant made an error in the classification (based either on an error in assessment or misclassification based on a correct assessment), circle the tick you have made for the true classification. Note the problems in assessment and classification very briefly in the space at the bottom of the checklist. If the classification was correct, but there was an error in assessment, circle the tick for the classification and note the assessment problem.

   If the participant made an error in treatment (either the dosage or explanation to the mother), circle the tick mark and note the problem at the bottom of the checklist.

   You can use letters or numbers next to the circles to annotate the problems. The problems noted will help you when you discuss participants' performance at the facilitator meeting. These notes will also help you keep track of the skills that need further practice.

4. If the participants are not yet doing the full assessment, leave these rows blank. Draw a line under the last classification included in the session objectives.

5. At the bottom of the checklist, list clinical signs in additional cases which were seen by the entire group.

Integrated Management of Neonatal and Childhood Illnes (IMNCI)

Checklist for monitoring **CLINICAL Session**- Sick Child age 2 months up to 5 years

Day :	Date :	Name of Facilitateur :	Venue :	Group :

➢ **Tick Correct classifications** ➢ **Circle if any assesment or classification problem** ➢ **Annote below**

	Participants Initial																				
	SICK CHILD (NUMBER MANAGED)																				
	Sick Child Age (months):																				
Danger Sings	**VERY SEVERE DISEASE**																				
Cough or Difficult Breathing	**SEVERE PNEUMONIA OR VERY SEVERE DISEASE**																				
	PNEUMONIA																				
	NO PNEUMONIA: COUGHOR COLD																				
Diarrhea	**SEVERE DEHYDRATION**																				
	SOME DEHYDRATION																				
	NO DEHYDRATION																				
	SEVERE PERSISTENT DIARHOEA																				
	PERSISTENT DIARHOEA																				
	DYSENTERY																				
Ear Problem	**MASTOIDITIS**																				
	ACUTE EAR INFECTION																				
	CHRONIC EAR INFECTION																				
	NO EAR INFECTION																				
Fever	**VERY SEVERE FEBRILE DISEASE**																				
	MALARIA																				
	FEVER- NOMALARIA																				
	FEVER																				
	SEVERE COMPLICATED MEASLES																				
	MEASLESWITH EYE AND/OR/MOUTH COMPLICATIONS																				
	MEASLES																				
	SEVERE DENGUE HEMORRHAGIC FEVER																				
	FEVER ONLY: DENGUE UNLIKELY																				
Malnutrition	**COMPLECATED SEVERE ACUTE MALNUTRITION**																				
	UNCOMPLECATED SEVERE ACUTE MALNUTRITION																				
	MODERATE ACUTE MALNUTRITION																				
	NO ACUTE MALNUTRITION																				
Anemia	**SEVERE ANAEMIA**																				
	ANAEMIA																				
	NO ANAEMIA																				
IDENTIFY TREATMENTS NEEDED																					

- Tick treatments or counselling actually given **- Circle if any problem** **-Annote below**

Refer																					
Treat	**REFER**																				
	ORAL DRUGS																				
	PLAN A																				
	PLAN B																				
	LOCAL INFECTION																				
Cousel Feeding	**ASKS FEEDING QUESTIONS**																				
	FEEDING PROBLEMS IDENTIFIED																				
	GIVES ADVICE ON FEEDING PROBLEMS																				
COUNSEL WHEN TO RETURN																					
Number of cases with problem																					
Number of classifications with problem																					
Proportion of cases managed without problem																					
Proportion of classifications made without problem																					

SIGNS DEMONSTRATED IN ADDITION CHILDREN				

Integrated Management of Neonatal and Childhood Illnes (IMNCI)

Checklist for monitoring **CLINICAL Session**- Sick Young Infant Age less than 2 months

Day : Date : Name of Facilitateur : Venue : Group :				
➢ **Tick Correct classifications** ➢ **Circle if any assesment or classification problem** ➢ **Annote below**				
Tick Correct classifications Circle if any assesment or classification problem Annote below				
Participants Initial				
Sick Young Infant (NUMBER MANAGED)				
Sick Young Infant age less than 2 months (days):				
Possible Serious Bacterial Infection (PSBI	**PSBI OR VERY SEVERE DISEASE**			
	PNEUMONIA			
	LOCAL INFECTION			
	SERIOUS DISEASE OR INFECTION UNLIKELY			
Jaundice	**SEVERE JAUNDICE**			
	JAUNDICE			
	NO JAUNDICE			
Diarrhea	**SEVERE DEHYDRATION**			
	SOME DEHYDRATION			
	NO DEHYDRATION			
	VERY LOW WEIGHT			
Feeding Assesment	**FEEDING PROBLEM OR LOW WEIGHT FOR AGE**			
	NO FEEDING PROBLEM			
OTHERS PROBLEM				
IDENTIFY TREATMENTS NEEDED				

- Tick treatments or counselling actually given **- Circle if any problem** **-Annote below**

Treat and Counsel	Teach Correct Positioning and attachment			
	Advise on home care			
	Refer			
COUNSEL WHEN TO RETURN				
Number of cases with problem				
Number of classifications with problem				
Proportion of cases managed without problem				
Proportion of classifications made without problem				
SIGNS DEMONSTRATED IN ADDITION CHILDREN				

14. Quick Reference Page

INFREQUENTLY SEEN SIGNS

Sick Children 2 months up to 5 years		
○ stridor in a calm child	○ measles rash	○ severe palmar pallor
○ very slow skin pinch	○ mouth ulcer	○ corneal clouding
○ stiff neck	○ Tender swelling behind ear	○ Pus draining from eye
Young infants 1 week up to 2 months		
○ severe chest indrawing	○ grunting	○ bulging fontanelle
○ not able to feed, no attachment at all, or not suckling at all	○ red umbilicus or draining pus	○ problems with attachment or suckling
○ less than normal movement	○ umbilical redness extending to the skin	○ many or severe skin pustules
○ thrush	○ nasal flaring	○
Treating local infections		
○ Treating eye infection with tetracycline eye ointment	○ Drying the ear by wicking ○ Treating mouth ulcers	○ Treating skin or umbilical infection or thrush in young infants

NECESSARY SUPPLIES FOR INSTRUCTION

Sick Child Recording Forms
Young Infant Recording Forms
6 clipboards and/or sheet protectors
String or tape to fasten clipboards to foot or head of bed
Highlighter pens
Thermometers
Scales for weighing children and infants
Cups, spoons and clean water (for offering fluid to assess thirst)
Supplies for treating dehydration according to
Plan B and Plan C
Set of 4 Case Management Charts

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