

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

Facilitator Guide

MANAGEMENT OF THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

2019

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METHODS AND TIME SCHEDULE

TOPICS	METHOD/ FEEDBACK	TIME IN HOURS
DAY 1		
1. Opening session: Distribute and introduce the module.	Plenary	0.5
2. Participants read the Introduction and section 1.0 up to Exercise A (8 pages).	Individual	0.5
3. Lead a drill on cut-offs for determining fast breathing in infants and in children.	Drill	0.25
4. Exercise A, Part 1: Video – Show WHO video – Assessing a young infant for Possible Serious Bacterial Infection or Very Severe Disease, Pneumonia, and Local Bacterial infection.	Group discussion	0.75
5. Exercise A, Part 2: Photographs – Discuss photographs of local infections. Introduce Recording Form (front side) if needed Give each participant 7 copies of the Young Infant Recording Form to use in Exercise B.	Group discussion	0.25
6. Participants read sections 1.2 through 1.5 (9 pages) and work individually on Exercise B: Assess and classify a sick young infant.	Individual	1.25
7. Exercise C, Part 1: WHO video demonstration Check for Jaundice (optional WHO video Assess and classify for dehydration)	Group discussion	0.5
8. Exercise C, Part 2: show the WHO video case study – assess and classify possible serious bacterial infection or very severe disease, jaundice, and diarrhoea.	Group discussion	0.5
9. Participants read through section 1.6 and 1.6.1. (2 pages) Lead a drill on reading a weight for age chart for young infants.	Individual Drill	0.25
10. Participants read section 1.6.2 (2.5 pages). For Exercise D, Part 1 – Show the WHO video on breastfeeding assessment.	Individual Group discussion	0.75
11. Participants study the example photographs in Exercise D, Part 2. Lead a brief group discussion of example photographs.	Group discussion	0.25
CLINICAL PRACTICE (ASSESS and CLASSIFY – conduct at a convenient time)	Small groups	1.5 to 2

TOPICS	METHOD/ FEEDBACK	TIME IN HOURS
DAY 2		
Review Day 1	Plenary	0.5
12. Participants read sections 1.7 – 1.11 (4 pages) and then work individually on Exercise E: Assess and classify feeding problem and weight for age.	Individual	1.0
13. Participants read sections 2.0 up through section 3.2 Refer the Young Infant (5.5 pages).	Individual	0.5
14. Introduce section 3.3 and the table in Chart Booklet, "Where Referral is Refused or Not Feasible, Further Assess and Classify the Sick Young Infant."	Group discussion	1.0
15. Participants read sections 3.3 through 4.1 up to Exercise F (8.5 pages – some pictures).	Individual	0.5
16. Exercise F, Part 1: Video – Show GHM video on preparing gentamicin and giving intramuscular injections.	Group discussion	0.5
17. CLINICAL PRACTICE – Exercise F, Part 2: Lead participants through practicing preparation of and giving gentamicin injections	Small groups	1.0
18. Participants read sections 4.2 through 4.8 (9.5 pages – possibility to save time – summarize rehydration plans A,B,C) Introduce back side of the Recording Form if needed	Individual	0.75
19. Show GHM video Preparing and giving oral amoxicillin	Group discussion	0.25
20. Lead a drill on determining the correct dose of gentamicin, ampicillin, and amoxicillin	Drill	0.25
DAY 3		
Review of Day 2	Plenary	0.5
CLINICAL PRACTICE (Decide on referral and practice BF techniques – conduct at a convenient time)	Small groups	1.5–2
21. Participants work individually on Exercise G: Determine whether young infant needs referral and identify treatments needed, including antibiotics with dosages; further assess and classify a young infant who needs referral but referral is not feasible; list the actions to take, including any treatments, dosages and schedule for antibiotics, and advice to give to the mother.	Individual	0.5

TOPICS	METHOD/ FEEDBACK	TIME IN HOURS
22. Participants read sections 4.9 through 4.13 (6 pages)	Individual	0.5
23. Exercise H, Part 1 – Show the WHO video (Helping a mother to improve her baby's positioning and attachment for breastfeeding).	Group discussion	0.5
24. Exercise H, Part 2 – Participants study the photographs. Facilitator leads group discussion of example photographs. Participants work individually on rest of photographs.	Group discussion	0.25
25. Participants read section 4.14. For Exercise I – Show WHO/GHM video of showing a mother how to express breast milk, keep a young infant warm at home, feed by cup, and how to treat thrush	Individual Group discussion	0.5
26. Participants read sections 4.15 (1 page) and work individually on Exercise J.	Individual	1.0
27. Lead a drill on points of advice for mothers of young infants.	Drill	0.25
28. Participants read section 5.0 and Conclusion (6 pages).	Individual	0.5
29. Summarize the module and review the Conclusion. Closing.	Group discussion	1.0

Annexes (to be referred to as necessary)

Annex A: Preparing for the course

Annex B: Instructions on clinical practice

Annex C: Facilitation techniques

Annex D: Young infant recording form

Annex E: Clinical skills monitoring Checklist

Annex F : Group Checklist for Clinical signs

Annex G : Instructional materials, supplies, medicines required

1. INTRODUCTION OF MODULE

Explain that this module describes how to care for a young infant age 0 to 59 days. It describes how to use the chart booklet "Management of the Sick Young Infant Age up To 2 Months." This is referred to as the *Young Infant* Chart Booklet.

The process for managing a sick young infant is generally the same process as for managing a sick child. Point to the relevant sections of the Young Infant Chart Booklet while outlining the tasks to be learned:

- Assess, classify, and identify treatment
- Treat the young infant and counsel the mother
- Give follow-up care for the young infant

Explain that there are differences because the problems and treatments of young infants are somewhat different from older infants and children. For example, when young infants are sick, they may have only non-specific signs of illness such as few movements, fever, or low body temperature. Mild chest indrawing is normal, so only severe chest indrawing is a serious sign. Young infants may need different antibiotics than older infants.

2. Ask participants to read the Introduction and section 1.0 up to Exercise A.

3. DRILL: Review of cutoffs for determining fast breathing

Conduct this drill at any convenient time after this point in the module. You may wish to do it while participants are gathered to watch the video, or at another time when they need a break from reading and writing.

Tell participants that this drill will review the cutoffs for determining fast breathing in children and young infants.

State or ask participants to state the three age groups that you must keep in mind when determining fast breathing and the respiratory rate threshold for each:

- Young infants (age 0 to 59 days) = 60 breaths per minute or more is fast breathing
- Infants 2 months up to 12 months = 50 breaths per minute or more is fast breathing
- Children 12 months up to 5 years = 40 breaths per minute or more is fast breathing

Then ask the questions in the left column. Participants should answer in turn.

WHAT IS FAST BREATHING IN AN INFANT OR CHILD:**ANSWER**

age 4 weeks?	60 breaths per minute or more
age 6 weeks?	60+
age 2 months?	50+
age 6 months?	50+
age 12 months	40+
age 11½ months	50+
age 1 month?	60+
age 4 months?	50+
age 3 weeks?	60+
age 3 years?	40+
age 3 months?	50+
age 5 weeks?	60+
age 10 months?	50+

DOES THIS INFANT OR CHILD HAVE FAST BREATHING?

IF THE BABY IS AGE:	AND BREATHING RATE IS:	DOES THE INFANT OR CHILD HAVE FAST BREATHING?
3 weeks	55	no
4 weeks	63	yes
2 weeks	59	no
18 months	44	yes
2 months	48	no
12 months	40	yes
3 years	37.5	no
12 months	37.5	no
3 years	42	yes
12 months	49	yes
11 months	49	No
6 months	52	Yes
6 weeks	65	Yes
14 months	45	Yes

4. EXERCISE A: Part 1: Video demonstration – Assessing a young infant for Possible Serious Bacterial Infection or Very Severe Disease, Pneumonia, and Local Bacterial infection.

Note to Facilitator:

Use WHO Video entitled demonstration video.

This video shows how to assess a young infant for Very Severe Disease or Local Bacterial Infection, how to check for Jaundice, and for Eye Infection (optional). Show the first part: How to assess a young infant for Very Severe Disease or Local Bacterial Infection (section 00:00 – 9:57). Classifications are not included in this video.

When all the participants are ready, arrange for them to move to where the video exercise will be shown. Make sure they bring their manuals and chart booklets.

To show the video:

1. Tell participants that they will watch a demonstration of how to assess a young infant for Possible Serious Bacterial Infection or Very Severe Disease, Pneumonia, and Local Bacterial Infection. The video will show examples of abnormal signs. Explain to the participants that they will see the assessment of all signs needed for the classification according to 2018 WHO management guidelines although only classifications “Very severe disease” and “Local bacterial infection” are mentioned in the video.
2. Ask if participants have any questions before you start the video. When there are no additional questions, start the video.
3. Show the video. Follow the instructions given in the video. Pause the video and give explanations or discuss what the participants are seeing as needed to be sure the participants understand how to assess these signs.
4. At the end of the video, lead a short discussion. If participants are not clear about the assessment of any signs, rewind the video and show the relevant portions again.

Important points to emphasize about the assessment in this video are:

- It is particularly difficult to count breathing in a young infant because of irregular breathing. Repeat any count which is 60 or more.

Note to Facilitator:

No thresholds for high body temperature/fever or low body temperature are mentioned in the video clip. The axillary high body temperature according to WHO 2018 guidelines is 38°C or above. This is higher than fever in previous guidelines for the young infant or in current guidelines for an older infant or child (37.5°C). This was done to increase the specificity of the sign.

5. EXERCISE A: Part 2: Group discussion of photographs of a young infant's umbilicus and skin pustules; then ask participants to read sections 1.2 through 1.5

Talk about each of the first 3 photographs, pointing out or having participants point out and tell how they can recognize the signs.

Then ask participants to work individually to study the rest of the photographs for this exercise and write the answers in the Participant Manual.

Give feedback in a group discussion: For each photograph, ask a participant to explain what he sees in the photograph. Discuss as necessary so that participants understand how to recognize an infected umbilicus.

Give the participants a copy of the answer sheet.

After the discussion, ask participants to continue working in the manual. They should read sections 1.2 through 1.5, referring to the Chart Booklet when they are asked to. Then they should work individually on Exercise B. Give each participant 7 copies of the Recording Form to use in Exercise B.

If the participants have not been previously trained in the integrated management of sick children up to 5 years, you need to introduce the Recording Form.

To do so, mention each part of the form and its purpose. For example:

- Look at the top of the front side of the form. (Point to each space as you speak). Explain that there are spaces for writing: the child's name, age, weight and temperature, the mother's answer about the child's problems, whether this is an initial visit or follow-up visit.
- Look at how the Recording Form is arranged. Notice that the form is divided into two columns: one is for "Assess" and the other is for "Classify." These two columns relate to the Assess and Classify columns on the ASSESS & CLASSIFY chart in the Chart Booklet.

MANAGEMENT OF THE SICK YOUNG INFANT

Answers to Exercise A

Part 2 – Photographs

Photograph 1: Normal umbilicus in a newborn

Photograph 2: A red umbilicus

Photograph 3: A red umbilicus

Photograph 4: Normal umbilicus in a newborn

Photograph 5: Pus discharge

Photograph 6: skin pustules

UMBILICUS	NORMAL	REDNESS OR DRAINING PUS	REDNESS EXTENDING TO THE SKIN OF ABDOMEN	SKIN PUSTULES
Photograph 1	✓			
Photograph 2		✓		
Photograph 3		✓		
Photograph 4	✓			
Photograph 5		✓ (pus discharge)		
Photograph 6				✓

6. EXERCISE B: Individual work followed by individual feedback – Assess and classify sick young infants for Possible Serious Bacterial Infection, Very Severe Disease, Pneumonia, Local Bacterial Infection, Jaundice, Diarrhoea, and HIV

Watch to see when participants have finished reading section 1.5 and are beginning Exercise B. Be sure that each participant has 7 copies of the Young Infant Recording Form and understands that he should record the information about each case in Exercise B on these forms. If any participant seems confused, explain or show him individually how to use the Recording Forms, so that he can get started on the exercise without delay.

Compare the participant's Recording Forms with the Answer Sheets for Exercise B. Where the participant has recorded something different, discuss why he did that, and go back to the case study as needed to verify the reason for the answer. Give the participant a copy of the answer sheet to keep.

Tell the participant that later exercises in this module will continue these same 7 case studies. The participant will continue completing the same 7 Recording Forms as he continues to work through the module.

In order to better understand the participant's work situation, discuss with the participant whether he sees sick young infants at his clinic.

Answers to Exercise B: Case 1

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Henri</u> Age: <u>6 hrs</u> Sex: <u>M</u> Weight: <u>3.0kg</u> Temperature: <u>36.5°C</u>		
ASK: What are the infant's problems? <u>no crying at birth, difficulty breathing</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
<p>Is the infant having difficulty feeding? <input checked="" type="checkbox"/></p> <p>Has the infant had convulsions? <input type="checkbox"/></p>	<ul style="list-style-type: none"> ▪ Count the breaths in one minute. <u>74</u> breaths per minute Repeat if (≥ 60) elevated <u>70</u> <u>Fast breathing?</u> ▪ Look for <u>severe chest</u> indrawing ▪ Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) ▪ Look at young infant's movements. Does the infant <u>move only when stimulated?</u> Does the infant not move at all? ▪ Look at umbilicus. Is it red or draining pus? ▪ Look for skin pustules 	PSBI OR VERY SEVERE DISEASE
CHECK FOR JAUNDICE		
	<ul style="list-style-type: none"> ▪ Is skin yellow? And infant is less than 24 hours of age? ▪ Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, ASK:		
	<ul style="list-style-type: none"> ▪ Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? ▪ Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> HIV serological test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/> HIV virology test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/>		HIV INFECTION UNLIKELY

Answers to Exercise B: Case 2

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Sashie</u> Age: <u>1 w</u> Sex: <u>F</u> Weight: <u>3.4kg</u> Temperature: <u>37°C</u>		
ASK: What are the infant's problems? <u>rash</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? Has the infant had convulsions?	<ul style="list-style-type: none"> • Count the breaths in one minute. <u>55</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? • Look for severe chest indrawing • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. 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 <u>skin pustules</u> 	LOCAL BACTERIAL INFECTION
CHECK FOR JAUNDICE	<ul style="list-style-type: none"> • Is skin yellow? And infant is less than 24 hours of age? • Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> • Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____		HIV INFECTION UNLIKELY

Answers to Exercise B: Case 3

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Ebai</u> Age: <u>2 wks</u> Sex: <u>M</u> Weight: <u>3.5kg</u> Temperature: <u>36.5°C</u>		
ASK: What are the infant's problems? <u>fast breathing</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? Has the infant had convulsions?	<ul style="list-style-type: none"> ▪ Count the breaths in one minute. <u>65</u> breaths per minute Repeat if (≥ 60) elevated <u>70</u> <u>Fast breathing?</u> ▪ Look for severe chest indrawing ▪ Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) ▪ Look at young infant's movements. 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 	PNEUMONIA
CHECK FOR JAUNDICE	<ul style="list-style-type: none"> ▪ Is skin yellow? And infant is less than 24 hours of age? ▪ Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> ▪ Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? ▪ Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> HIV serological test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/> HIV virology test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/>		HIV INFECTION UNLIKELY

Answers to Exercise B: Case 4

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Robert</u> Age: <u>1 wk</u> Sex: <u>M</u> Weight: <u>2.2kg</u> Temperature: <u>36.0°C</u>		
ASK: What are the infant's problems? <u>skin colour changed</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? Has the infant had convulsions?	<ul style="list-style-type: none"> ▪ Count the breaths in one minute. <u>58</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? ▪ Look for severe chest indrawing ▪ Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) ▪ Look at young infant's movements. 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 	INFECTION UNLIKELY
CHECK FOR JAUNDICE	<ul style="list-style-type: none"> ▪ <u>Is skin yellow?</u> And infant is less than 24 hours of age? ▪ <u>Are the palms or soles yellow?</u> 	SEVERE JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> ▪ Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? ▪ Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? _____ 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input checked="" type="checkbox"/> Negative _____ Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/> HIV virology test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/>		HIV EXPOSED: POSSIBLE HIV INFECTION

Answers to Exercise B: Case 5

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Alice</u> Age: <u>10 days</u> Sex: _____ Weight: <u>3.2kg</u> Temperature: <u>36.7°C</u>		
ASK: What are the infant's problems? <u>yellow eyes</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? _____		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? Has the infant had convulsions?	<ul style="list-style-type: none"> ▪ Count the breaths in one minute. <u>52</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? ▪ Look for severe chest indrawing ▪ Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) ▪ Look at young infant's movements. 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 	INFECTION UNLIKELY
CHECK FOR JAUNDICE	<ul style="list-style-type: none"> ▪ <u>Is skin yellow?</u> And infant is less than 24 hours of age? ▪ Are the palms or soles yellow? 	JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> ▪ Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? ▪ Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____		HIV INFECTION UNLIKELY

Answers to Exercise B: Case 6

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Jenna</u> Age: <u>7 wks</u> Sex: <u>F</u> Weight: <u>3.0kg</u> Temperature: <u>36.4°C</u>		
ASK: What are the infant's problems? <u>diarrhoea</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? Has the infant had convulsions?	<ul style="list-style-type: none"> • Count the breaths in one minute. <u>50</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? • Look for severe chest indrawing • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. 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 	INFECTION UNLIKELY
CHECK FOR JAUNDICE		
	<ul style="list-style-type: none"> • Is skin yellow? And infant is less than 24 hours of age? • Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, ASK:		
	<ul style="list-style-type: none"> • Look at the young infant's general condition. Is the <u>infant restless and</u> irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? <u>Slowly?</u> 	SOME DEHYDRATION
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/> HIV serological test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> HIV virology test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input checked="" type="checkbox"/>		HIV EXPOSED: POSSIBLE HIV INFECTION

Answers to Exercise B: Case 7

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Neera</u> Age: <u>3 wk</u> Sex: <u>F</u> Weight: <u>4.2kg</u> Temperature: <u>36.2°C</u>		
ASK: What are the infant's problems? <u>stopped feeding well</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>		
ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION		
Is the infant having difficulty feeding? <input checked="" type="checkbox"/> Has the infant had convulsions? <input type="checkbox"/>	<ul style="list-style-type: none"> ▪ Count the breaths in one minute. <u>50</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? ▪ Look for severe chest indrawing ▪ Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) ▪ Look at young infant's movements. Does the infant <u>move only when stimulated?</u> Does the infant <u>not move at all?</u> ▪ Look at umbilicus. <u>Is it red or draining pus?</u> ▪ Look for skin pustules 	PSBI OR VERY SEVERE DISEASE LOCAL INFECTION
CHECK FOR JAUNDICE		
	<ul style="list-style-type: none"> ▪ Is skin yellow? And infant is less than 24 hours of age? ▪ Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:		
	<ul style="list-style-type: none"> ▪ Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? ▪ Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? _____ 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____		HIV INFECTION UNLIKELY

7. Exercise C, Part 1: Video demonstration – How to check for jaundice and optional demonstration on assessing and classifying dehydration

When all the participants are ready, arrange for them to move to where the video demonstration and exercise will be shown. Make sure they bring their chart booklets.

Video demonstration: Check for Jaundice

Show Demonstration: How to Check for Jaundice in the video used for Exercise A.

To conduct the video demonstration:

1. Tell participants that they will watch a demonstration of how to assess and classify a young infant for jaundice.
2. Ask if participants have any questions before you start the video. When there are no additional questions, show the video. Pause the video and give explanations or discuss what the participants are seeing as needed to be sure the participants understand how to assess the jaundice.
3. At the end of the video, lead a short discussion. If participants are not clear about the assessment or classification of jaundice, show the relevant portions again.

Optional video demonstration: on assessing and classifying dehydration

You need to decide if the background of the participants on assessing and classifying dehydration warrants additional demonstration using WHO IMCI video entitled “How to assess a child for diarrhoea (duration 9:30)” If yes, conduct the demonstration as follows.

To conduct the video demonstration:

1. Tell participants that they will watch a demonstration of how to assess and classify a child for diarrhoea. Tell the participants that the assessment of a young infant is similar to the assessment for an older infant or young child, but fewer signs are checked and you will explain the differences when watching the video.
2. Ask if participants have any questions before you start the video. When there are no additional questions, show the video. Pause the video after each section and explain what the participants are seeing and how it is different when assessing a young infant. Discuss as needed to be sure the participants understand how to assess the dehydration in a young infant.
3. At the end of the video, lead a short discussion. If participants are not clear about the assessment or classification of dehydration, show the relevant portions again.

8. Exercise C, Part 2: Video case study and discussion of assessing and classifying a young infant for Possible Serious Bacterial Infection or Very Severe Disease, Local Bacterial Infection, Jaundice, and Diarrhoea

Show WHO video Case study Ikram: Assess and classify the young infant for very severe disease or local bacterial infection, jaundice, and diarrhoea (duration 12:33).

To conduct the video exercise:

1. Tell participants that during this exercise they will watch a case study of a young infant. The young infant will be assessed for serious bacterial infection or very severe disease and local bacterial infection, jaundice, and diarrhoea.

Note to Facilitator:

The video includes assessment of all signs needed for classification of "Possible serious bacterial infection or very severe disease", "Pneumonia" or "Local bacterial infection" according to 2018 WHO management guidelines although only classifications "Very severe disease" and "Local bacterial infection" are mentioned in the video clip. "Fever 37.5°C or above" was changed to "High body temperature 38°C or above" in order to increase specificity.

Note to Facilitator:

In the video, Ikram is 10 days old. He weighs 3 kg, temperature is 35.7°C and he is sick. He was feeding well but not since 2 days. He has no convulsions. Respiratory rate is 44 per minute. He has difficulty feeding, severe chest indrawing, umbilicus not red or draining pus. No skin pustules. He moves on his own. He has no jaundice.

Participants should record their assessment results on the recording form in the Participant's Manual. They will be given time to classify the young infant and write the classifications on the form.

2. Ask if participants have any questions before you start the video. When there are no additional questions, start the video.
3. At the end of the video, lead a short discussion. If participants are not clear about the assessment of any signs, rewind the video and show the relevant portions again. Review how to assess any of the signs that were not on the video.

The classifications should be: *Possible Severe Bacterial Infection or Very Severe Disease; no jaundice; no dehydration*. If there are any questions about the classifications, review the infant's signs and how they were classified, referring to a classification table.

Ask the participants to read section 1.6 and 1.6.1 and to let you know when they have finished. Then lead a drill.

9. DRILL: Reading a weight for age chart for young infants

Conduct this drill when participants have finished reading section 1.6.1 or at any convenient time during work on this module.

Tell participants that in this drill they will practice determining whether a young infant is low weight for age. Ask them to take out their chart booklets and turn to the Weight for Age charts. Boys and girls have different charts.

Ask the question in the left column. Participants should answer in turn.

QUESTIONS

ANSWERS

Which curve do you use to assess weight for age in a young infant?	Low weight for age or -2 Z-score line
If a young infant's weight is on the curve for low weight for age, is he low weight for age?	No- Below the curve is low weight. On or above the curve is not.
Does the bottom of the Weight for Age chart show age in weeks or months?	Both weeks and months; in weeks up to age 13 weeks; in months after 3 months.

IS THE YOUNG INFANT LOW WEIGHT FOR AGE?

IF THE INFANT IS:	AND WEIGHS:	LOW WEIGHT FOR AGE?
3 weeks old boy	3 kg	<i>yes</i>
6 weeks old girl	4 kg	<i>no</i>
7 weeks old boy	3 kg	<i>yes</i>
4 weeks old boy	2.5 kg	<i>yes</i>
5 weeks old girl	3.25 kg	<i>yes</i>
2 weeks old girl	2.5 kg	<i>yes</i>
6 weeks old boy	3.75 kg	<i>no</i>
5 weeks old girl	2.9 kg	<i>yes</i>

Ask the participants to read section 1.6.2.

10. EXERCISE D, Part 1: Video demonstration of breastfeeding assessment

Show WHO video on breastfeeding assessment accessible (duration 8:03).

If possible, in the room where the video is being shown, display the enlarged section of the chart: Assess Breastfeeding.

Tell participants that they will see a demonstration of assessing feeding. In particular, they will see how to assess breastfeeding. Point to the enlargement and review the steps of assessing breastfeeding. (Or, ask participants to turn in the chart booklet and read over the steps to assess feeding of a young infant.) The video will show examples of the signs of good and poor attachment and effective and ineffective suckling.

Ask if participants have any questions before you start the video. When there are no additional questions, start the videotape.

At the end of the video, lead a short discussion. If participants are not clear about the assessment of any signs, rewind the video and show the relevant portions again.

Important points to emphasize in the discussion are:

- The four signs of good attachment. (Point to these on the enlargement as you review them.)
- An infant who is well attached does not cause any pain or discomfort to the breast. Good attachment allows the infant to suckle effectively. Signs of effective suckling are:
 - the infant suckles with slow deep sucks
 - you may see or hear swallowing
- An infant who is suckling effectively may pause sometimes and then start suckling again. Remember that the mother should allow her baby to finish the feed and release the breast himself. A baby who has been suckling effectively will be satisfied after a breastfeed.

11. EXERCISE D, Part 2: Group discussion of example photographs. Then individual work followed by individual feedback – Recognizing signs of good attachment

Talk about each of the first 5 photographs, pointing out or having participants point out and tell how they can see each sign of good or poor attachment. Participants should refer to the descriptions of each photograph in their module.

Then ask participants to work individually to study the rest of the photographs for this exercise and write the answers in the chart. They should look for the signs of good attachment present in each photograph and make an overall assessment of the infant's attachment.

To give individual feedback on this exercise, compare the participant's answers with the answers on the answer sheet. If the participant had a different answer, look at the photograph together and discuss how to recognize the sign.

Then look at photographs 22 and 23 (thrush) with the participant. Answer any questions that the participant may have about these photographs.

Give the participant a copy of the answer sheet for this exercise.

Ask the participant to read sections 1.7 through 1.11 and then work individually on Exercise E.

MANAGEMENT OF THE SICK YOUNG INFANT

Answers to Exercise D

Photo	Signs Of Good Attachment				Assessment	Comments
	More Areola Seen Above Mouth	Mouth Wide Open	Lower Lip Turned Outward	Chin Touching Breast		
13	Yes (almost)	Yes	Yes	Yes	Good attachment	
14	No (equal above and below)	No	Yes	No	Not well attached	
15	Yes	No	No	Yes	Not well attached	Lower lip turned in
16	No	No	No	No	Not well attached	Cheeks pulled in
17	Cannot see	Yes	Yes	Yes	Good attachment	
18	No (equal above and below)	No	Yes	No	Not well attached	
19	Yes	Yes	Yes	Yes	Good attachment	
20	Yes	Yes	Yes	Yes (Almost)	Good attachment	
21	No (more below)	No	No	Yes	Not well attached	Lower lip turned in

Photographs 22 and 23: White patches (thrush) in the mouth of an infant.

12. EXERCISE E: Individual work followed by individual feedback – Assess and classify feeding problem and weight for age in case studies

Compare the participant's recording forms with the Answer Sheets for Exercise E. If the participant recorded something different on his form, discuss his answer, and refer back to the case study as needed to verify the reason for the answer provided on the answer sheet.

 **Note to Facilitators:**

The section ASSESS FEEDING, WHEN HIV POSITIVE MOTHER IS NOT BREASTFEEDING was omitted in the Recording Forms in the Answer Sheets for this exercise due to space constraints.

Explain that Case 3 (Ebai), who is 14 days old, should get OPV 0 today. If an infant is even one day older than 2 weeks of age, he should not get OPV 0.

Ask the participant to read sections 2.0 Identify Appropriate Treatment through Section 3.2 Refer the Young Infant.

Answers to Exercise E: Case 1

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Henri</u> Age: <u>6 hrs</u> Sex: <u>M</u> Weight: <u>3.0kg</u> Temperature: <u>36.5°C</u> ASK: What are the infant's problems? <u>no crying at birth, difficulty breathing</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/> ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> • Is the infant having difficulty feeding? <input checked="" type="checkbox"/> • Has the infant had convulsions? <input type="checkbox"/> • Count the breaths in one minute. <u>74</u> breaths per minute Repeat if (≥ 60) elevated <u>70</u> <u>Fast breathing?</u> • Look for <u>severe chest indrawing</u> • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. Does the infant <u>move only when stimulated?</u> Does the infant not move at all? <input type="checkbox"/> • Look at umbilicus. Is it red or draining pus? <input type="checkbox"/> • Look for skin pustules <input type="checkbox"/> 	PSBI OR VERY SEVERE DISEASE
CHECK FOR JAUNDICE <ul style="list-style-type: none"> • Is skin yellow? And infant is less than 24 hours of age? • Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> • Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? <input type="checkbox"/> Slowly? <input type="checkbox"/>
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> HIV serological test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/> HIV virology test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/>	HIV INFECTION UNLIKELY
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> • Is the infant breastfed? Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, how many times in 24 hrs? <input type="checkbox"/> times • Does the infant receive any other foods or drinks? Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, how often? <input type="checkbox"/> times If yes, what do you use to feed the infant? • Determine weight for age. Very low weight (< 2 kg) <input type="checkbox"/> Low weight for age (< -2 Z score) <input type="checkbox"/> NOT low weight for age <input type="checkbox"/> • Look for ulcers or white patches in the mouth (thrush). 	Not assessed
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:	
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Is the infant able to attach? To check attachment, look for: <ul style="list-style-type: none"> - More areola seen above than below the mouth Yes <input type="checkbox"/> No <input type="checkbox"/> - Mouth wide open Yes <input type="checkbox"/> No <input type="checkbox"/> - Lower lip turned outward Yes <input type="checkbox"/> No <input type="checkbox"/> - Chin touching breast Yes <input type="checkbox"/> No <input type="checkbox"/> Good attachment <input type="checkbox"/> Poor attachment <input type="checkbox"/> No attachment at all <input type="checkbox"/> • Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? Suckling effectively <input type="checkbox"/> not suckling effectively <input type="checkbox"/> not suckling at all <input type="checkbox"/>
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today. BCG <input type="checkbox"/> Hep B0 <input type="checkbox"/> OPV0 <input type="checkbox"/> DPT1+Hib1+Hep B1 <input type="checkbox"/> OPV-1 <input type="checkbox"/> Rotavirus-1 <input type="checkbox"/> PCV-1 <input type="checkbox"/>	Return for next immunization on:
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

Answers to Exercise E: Case 2

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Sashie</u> Age: <u>1 w</u> Sex: <u>F</u> Weight: <u>3.4kg</u> Temperature: <u>37°C</u> ASK: What are the infant's problems? <u>rash</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/> ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> Is the infant having difficulty feeding? Has the infant had convulsions? Count the breaths in one minute. <u>55</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? Look for severe chest indrawing Measure temperature High body temperature (temperature $> 38^\circ\text{C}$) or Low body temperature (below 35.5°C) Look at young infant's movements. 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 <u>skin pustules</u> 	LOCAL BACTERIAL INFECTION
CHECK FOR JAUNDICE <ul style="list-style-type: none"> Is skin yellow? And infant is less than 24 hours of age? Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly?
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____	HIV INFECTION UNLIKELY
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> Is the infant breastfed? Yes <input checked="" type="checkbox"/> No _____ If Yes, how many times in 24 hrs? <u>9-10</u> times Does the infant receive any other foods or drinks? Yes _____ No <input checked="" type="checkbox"/> If Yes, how often? _____ times If yes, what do you use to feed the infant? Determine weight for age. Very low weight (< 2 kg) _____ Low weight for age (< -2 Z score) _____ NOT low weight for age <input checked="" type="checkbox"/> Look for ulcers or white patches in the mouth (thrush). 	NO FEEDING PROBLEM
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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> More areola seen above than below the mouth Yes <input checked="" type="checkbox"/> No _____ Mouth wide open Yes <input checked="" type="checkbox"/> No _____ Lower lip turned outward Yes <input checked="" type="checkbox"/> No _____ Chin touching breast Yes _____ No _____ Good attachment <input checked="" type="checkbox"/> Poor attachment _____ No attachment at all _____ Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? Suckling effectively <input checked="" type="checkbox"/> not suckling effectively _____ not suckling at all _____ 	
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today. <input checked="" type="checkbox"/> BCG <input checked="" type="checkbox"/> Hep B0 <input checked="" type="checkbox"/> OPV0 _____ DPT1+Hib1+Hep B1 _____ OPV-1 _____ Rotavirus-1 _____ PCV-1	Return for next immunization on: At 6 weeks old
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

Answers to Exercise E: Case 3

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Ebai</u> Age: <u>2 wks</u> Sex: <u>M</u> Weight: <u>3.5kg</u> Temperature: <u>36.5°C</u> ASK: What are the infant's problems? <u>fast breathing</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/> ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> Is the infant having difficulty feeding? Has the infant had convulsions? Count the breaths in one minute. <u>65</u> breaths per minute Repeat if (≥ 60) elevated <u>70</u> <u>Fast breathing?</u> Look for severe chest indrawing Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) Look at young infant's movements. 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 	PNEUMONIA
CHECK FOR JAUNDICE <ul style="list-style-type: none"> Is skin yellow? And infant is less than 24 hours of age? Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? <input type="checkbox"/> Slowly? <input type="checkbox"/>
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> HIV serological test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/> HIV virology test of the infant? Positive <input type="checkbox"/> Negative <input type="checkbox"/> Unknown <input type="checkbox"/>	HIV INFECTION UNLIKELY
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> Is the infant breastfed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, how many times in 24 hrs? <u>6-7</u> times Does the infant receive any other foods or drinks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, how often? <input type="checkbox"/> times If yes, what do you use to feed the infant? Determine weight for age. Very low weight (< 2 kg) <input type="checkbox"/> Low weight for age (< -2 Z score) <input type="checkbox"/> NOT low weight for age <input checked="" type="checkbox"/> Look for ulcers or white patches in the mouth (thrush). 	FEEDING PROBLEM
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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> More areola seen above than below the mouth Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Mouth wide open Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Lower lip turned outward Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Chin touching breast Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Good attachment <input checked="" type="checkbox"/> Poor attachment <input type="checkbox"/> No attachment at all <input type="checkbox"/> Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? Suckling effectively <input checked="" type="checkbox"/> not suckling effectively <input type="checkbox"/> not suckling at all <input type="checkbox"/> 	
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today. <u>BCG</u> <u>Hep B0</u> <u>OPV0</u> DPT1+Hib1+Hep B1 OPV-1 Rotavirus-1 PCV-1	Return for next immunization on:
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

Answers to Exercise E: Case 4

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Robert</u> Age: <u>1 wk</u> Sex: <u>M</u> Weight: <u>2.2kg</u> Temperature: <u>36°C</u>	
ASK: What are the infant's problems? <u>skin colour changed</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>	
ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> • Is the infant having difficulty feeding? • Has the infant had convulsions? • Count the breaths in one minute. <u>58</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? • Look for severe chest indrawing • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. 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 	INFECTION UNLIKELY
CHECK FOR JAUNDICE <ul style="list-style-type: none"> • <u>Is skin yellow?</u> And infant is less than 24 hours of age? • Are <u>the palms or soles yellow?</u> 	SEVERE JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK: <ul style="list-style-type: none"> • Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input checked="" type="checkbox"/> Negative _____ Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/> HIV virology test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/>	HIV EXPOSED: POSSIBLE HIV INFECTION
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> • 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 (< 2 kg) _____ Low weight for age (< -2 Z score) _____ NOT low weight for age _____ • Look for ulcers or white patches in the mouth (thrush). 	Not assessed
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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - 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 B0 _____ OPV0 _____ DPT1+Hib1+Hep B1 _____ OPV-1 _____ Rotavirus-1 _____ PCV-1 _____	Return for next immunization on: Not assessed
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

Answers to Exercise E: Case 5

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS		
Name: <u>Alice</u> Age: <u>10 days</u> Sex: _____ Weight: <u>3.2kg</u> Temperature: <u>36.7°C</u>		
ASK: What are the infant's problems? <u>yellow eyes</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? _____		
ASSESS (Circle all signs present) CLASSIFY		
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> • Is the infant having difficulty feeding? • Has the infant had convulsions? • Count the breaths in one minute. <u>52</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? • Look for severe chest indrawing • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. 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 	INFECTION UNLIKELY	
CHECK FOR JAUNDICE <ul style="list-style-type: none"> • <u>Is skin yellow?</u> And infant is less than 24 hours of age? • Are the palms or soles yellow? 	JAUNDICE	
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK:	<ul style="list-style-type: none"> • Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____	HIV INFECTION UNLIKELY	
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> • Is the infant breastfed? Yes <input checked="" type="checkbox"/> No _____ If Yes, how many times in 24 hrs? <u>6-7</u> times • Does the infant receive any other foods or drinks? Yes _____ No <input checked="" type="checkbox"/> If Yes, how often? _____ times If yes, what do you use to feed the infant? • Determine weight for age. Very low weight (< 2 kg) _____ Low weight for age (< -2 Z score) _____ NOT low weight for age <input checked="" type="checkbox"/> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - More areola seen above than below the mouth Yes <input checked="" type="checkbox"/> No _____ - Mouth wide open Yes <input checked="" type="checkbox"/> No _____ - Lower lip turned outward Yes <input checked="" type="checkbox"/> No _____ - Chin touching breast Yes <input checked="" type="checkbox"/> No _____ Good attachment <input checked="" type="checkbox"/> Poor attachment _____ No attachment at all _____ • Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? Suckling effectively <input checked="" type="checkbox"/> not suckling effectively _____ not suckling at all _____ 		FEEDING PROBLEM
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today. <u>BCG</u> <u>Hep B0</u> <u>OPV0</u> DPT1+Hib1+Hep B1 OPV-1 Rotavirus-1 PCV-1		Return for next immunization on:
ASSESS OTHER PROBLEMS:		
COUNSEL THE MOTHER ABOUT HER OWN HEALTH		

Answers to Exercise E: Case 6

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Jenna</u> Age: <u>7 wks</u> Sex: <u>F</u> Weight: <u>3.0kg</u> Temperature: <u>36.4°C</u>	
ASK: What are the infant's problems? <u>diarrhoea</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>	
ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> Is the infant having difficulty feeding? Has the infant had convulsions? Count the breaths in one minute. <u>50</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? Look for severe chest indrawing Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) Look at young infant's movements. 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 	INFECTION UNLIKELY
CHECK FOR JAUNDICE <ul style="list-style-type: none"> Is skin yellow? And infant is less than 24 hours of age? Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, ASK:	SOME DEHYDRATION
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive <input checked="" type="checkbox"/> Negative _____ Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/> HIV virology test of the infant? Positive _____ Negative _____ Unknown <input checked="" type="checkbox"/>	HIV EXPOSED: POSSIBLE HIV INFECTION
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> Is the infant breastfed? Yes <input checked="" type="checkbox"/> No _____ If Yes, how many times in 24 hrs? <u>3</u> times Does the infant receive any other foods or drinks? Yes <input checked="" type="checkbox"/> No _____ If Yes, how often? <u>3</u> times If yes, what do you use to feed the infant? <u>bottle</u> Determine weight for age. Very low weight (< 2 kg) _____ Low weight for age (< -2 Z score) <input checked="" type="checkbox"/> NOT low weight for age _____ Look for ulcers or white patches in the mouth (thrush). 	FEEDING PROBLEM and LOW WEIGHT FOR AGE
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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> More areola seen above than below the mouth Yes _____ No <input checked="" type="checkbox"/> Mouth wide open Yes _____ No <input checked="" type="checkbox"/> Lower lip turned outward Yes _____ No <input checked="" type="checkbox"/> Chin touching breast Yes _____ No <input checked="" type="checkbox"/> Good attachment _____ Poor attachment <input checked="" type="checkbox"/> No attachment at all _____ Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)? Suckling effectively _____ not suckling effectively <input checked="" type="checkbox"/> not suckling at all _____ 	FEEDING PROBLEM
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today. <input checked="" type="checkbox"/> BCG <input type="checkbox"/> Hep B0 <input type="checkbox"/> OPV0 <input checked="" type="checkbox"/> DPT1+Hib1+Hep B1 <input type="checkbox"/> OPV-1	Return for next immunization on:
ASSESS OTHER PROBLEMS: <i>HepB0 is not circled as it is not given after 2 weeks</i>	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

Answers to Exercise E: Case 7

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS	
Name: <u>Neera</u> Age: <u>3 wk</u> Sex: <u>F</u> Weight: <u>4.2kg</u> Temperature: <u>36.2°C</u>	
ASK: What are the infant's problems? <u>stopped feeding well</u> Initial visit? <input checked="" type="checkbox"/> Follow-up Visit? <input type="checkbox"/>	
ASSESS (Circle all signs present) CLASSIFY	
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION <ul style="list-style-type: none"> • Is the infant having <u>difficulty feeding?</u> • Has the infant had convulsions? • Count the breaths in one minute. <u>50</u> breaths per minute Repeat if (≥ 60) elevated _____ Fast breathing? • Look for severe chest indrawing • Measure temperature High body temperature (temperature $> 38^{\circ}\text{C}$) or Low body temperature (below 35.5°C) • Look at young infant's movements. Does the infant move only when stimulated? Does the infant not move at all? • Look at umbilicus. <u>is it red or draining pus?</u> • Look for skin pustules 	PSBI OR VERY SEVERE DISEASE LOCAL INFECTION
CHECK FOR JAUNDICE <ul style="list-style-type: none"> • Is skin yellow? And infant is less than 24 hours of age? • Are the palms or soles yellow? 	NO JAUNDICE
DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes _____ No <input checked="" type="checkbox"/> If yes, ASK: <ul style="list-style-type: none"> • Look at the young infant's general condition. Is the infant restless and irritable? Does the infant move only when stimulated? Does the infant not move at all? • Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? _____ Slowly? 	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive _____ Negative <input checked="" type="checkbox"/> Unknown _____ HIV serological test of the infant? Positive _____ Negative _____ Unknown _____ HIV virology test of the infant? Positive _____ Negative _____ Unknown _____	HIV INFECTION UNLIKELY
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE <ul style="list-style-type: none"> • 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 (< 2 kg) _____ Low weight for age (< -2 Z score) _____ NOT low weight for age _____ • Look for ulcers or white patches in the mouth (thrush). 	Not assessed
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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - 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 B0 _____ OPV0 _____ DPT1+Hib1+Hep B1 _____ OPV-1 _____ Rotavirus-1 _____ PCV-1	Return for next immunization on:
ASSESS OTHER PROBLEMS:	
COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

13. Participants read sections 2.0 up through section 3.2.

14. Introduce section 3.3 and the table on page 13 of the Chart Booklet, “Where Referral is Refused or Not Feasible, Further Assess and Classify the Sick Young Infant.”

Note to Facilitators:

For participants who were previously trained using an older version of the IMCI module on Management of the Sick Young Infant (this newer version is dated 2018), you may need to explain that these updated training materials apply the recommendations in the WHO GUIDELINE: Managing Possible Serious Bacterial Infection (PSBI) in Young Infants When Referral Is Not Feasible, released in 2015. When they return to their health facilities, they should begin to follow the new chart booklet and this Participant Manual instead of an earlier version.

Introduce Where Referral is Refused or Not Feasible

Explain:

- Page 13 of the Chart Booklet presents steps that address the possibility that a young infant who **should** be referred **cannot be** referred. Sometimes, even after good counselling, a family will refuse to take the young infant to the hospital, or referral will not be feasible for some reason.
- The table gives a procedure for further assessing and classifying a young infant who has Possible Severe Bacterial Infection or Very Severe Disease, to determine if it is possible to give the young infant treatment at the outpatient facility.

Review some barriers to referral

Ask participants whether they have encountered the problem that sick young infants (or children) who are referred do not actually reach a hospital. Ask participants what the possible referral barriers are; listen to their answers.

Some common barriers include:

- Distance to hospital/health centre
- Costs related to transport, time, payment of medicines and staying in large towns
- Cultural and religious belief preventing women and newborn to go outside home and travel long distances
- Inability to travel daily to and from health centre due to issues of distance and time

Describe that the sick young infant with the classification POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE is at risk of death and needs to have treatment immediately

Emphasize the following points:

- The best possible treatment for an infant with a very severe illness is at a hospital. However, compliance with referral is not possible in many cases, in spite of the health worker’s efforts to explain the need for referral.
- The **reality is that very few newborns are seen at health centers/hospitals** due to barriers to referral discussed previously. In such cases, the health worker should do all that she can do to help the family care for the baby.

- To help reduce deaths in severely ill young infants who cannot access treatment in hospital, the health worker can further assess and classify the young infant to determine **whether** the infant can be treated as an outpatient, and **what treatment** can be given.
- **Some young infants MUST be treated in hospital.** Emphasize that a sick young infant with any of the following problems needs urgent referral and should not be treated at outpatient level:
 - Convulsing (having abnormal movement)
 - Unable to feed
 - No movement even on stimulation
 - Weight <2 kg
 - These infants are at higher risk of dying and thus you should explain again to the mother that the infant is very sick and needs hospital care. Health care providers should facilitate referral of sick young infants with these signs because these infants will need specialized care including parenteral antibiotics, oxygen, and round-the-clock monitoring.
- **Some young infants can be treated as outpatients.** For these young infants, the health worker can offer simplified treatment with antibiotics at her clinic and follow up frequently to ensure that the infant improves.

Answer if there are any questions. Involve participants in answering questions.

Review how to use the table to further assess and classify an infant with Possible Serious Bacterial Infection or Very Severe Disease.

1. Explain that you should check for the signs in the left column. When an infant has signs in more than one row, choose the most severe classification.
2. Ask a participant to read out the signs in the left column in the top row. Ask a different participant to describe how to assess any sign that was not already assessed on page 1.
3. Then review the recommended treatment for a young infant with the classification CRITICAL ILLNESS.
4. Ask a participant to read the signs in the second row. Then review the recommended treatment for the classification CLINICAL SEVERE INFECTION. Review the footnote about the duration of treatment with intramuscular gentamicin and specify the recommendation to be followed in this country.
5. Ask a participant to read the sign in the third row. Then review the treatment for the classification SEVERE PNEUMONIA.
6. How to give treatment with oral amoxicillin and with intramuscular gentamicin will be described in detail in section 4.0 of the Participant's Manual.

Note to Facilitators:

Participants would benefit from some practice using the table to further assess and classify young infants. If possible, prepare a few cases to review as a group, or as handouts for individual work.

For each case, provide the results of the initial assessment, the infant's classification POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE (and the classifications may include others, such as local infection or some dehydration), and the information that the family has refused referral. Ask participants to further assess the child (given further information on the case that you provide), classify, and specify the treatment that could be given to this young infant.

15. Participants read sections 3.3 through 4.1 Give an Intramuscular Injection of Gentamicin, up to Exercise F.

16. Exercise F, Part 1: Video demonstration – Preparing gentamicin for injection and giving intramuscular injections

For the demonstration of preparation of gentamicin injections, show the video entitled Preparing Gentamicin for Injection (duration: 6:16).

When all the participants are ready, arrange for them to move to where the video exercise will be shown.

To show the video:

1. Tell participants that they will watch a demonstration of how to prepare ampicillin and gentamicin injections and how to give an intramuscular injection.
2. Ask if participants have any questions before you start the video. When there are no additional questions, start the video.
3. At the end of the video, lead a short discussion. If participants are not clear about the any item, rewind the video and show the relevant portions again.

Important point to mention:

- Although it is not shown in the video, a health worker should always wear gloves when giving an injection.

17. CLINICAL PRACTICE – Exercise F, Part 2: Participants practise preparation and giving injections of gentamicin

Obtain enough of the following items for **every** participant to practice mixing, drawing up and giving a gentamicin injection.

- Syringes and needles
- Gentamicin vials
- Cotton balls/Disinfectant
- Gloves
- Oranges or other fruit for practice
- Safe box for disposal of used syringes and needles
- Baby doll for practice in locating a proper injection site

Arrange the tables, supplies and participants so that each will have adequate work space.

- Divide participants into small groups.
- Distribute the items listed above.

- Have trainees become acquainted with the syringes, the needle, fixing the needle to the syringe, removing the caps of the vial, removing the thin part of the vial, inserting the needle, pulling on the plunger, drawing liquid into the barrel, dispelling the air bubble, and measuring the amount of 'medicine' required (until the required mark).
- Remind the participants to refer to the list of steps in their manuals.
- Observe participants as they draw up the correct dose of gentamicin. Getting the appropriate amount in the syringe is crucial.
- Using the illustration as a guide have trainees practice locating a proper injection site on a baby doll.
- Using oranges, let participants practice infection prevention techniques and giving injections.
- Circulate in the room and make sure each trainee can find a correct injection site and administer gentamicin.
- Summarize the exercise. Clean up the classroom area. Dispose of used supplies and save the remaining supplies.

Ask participants to return to their normal seats and to read sections 4.2 through 4.8

18. Participants read sections 4.2 – 4.8

Note to Facilitators:

Section 4.6. Treat diarrhoea – If the participants were previously trained in the integrated management of sick children up to 5 years, you may just summarize or ask a participant to summarize plans A, B, and C. Point out the difference: Zinc supplements are given to children aged 2 months up to 5 years, not to young infants. Therefore there are only three rules of home treatment of diarrhoea and not four as for an older infant or child.

When the participants reach Exercise G, they should work on it individually.

19. Video demonstration of preparing and giving oral amoxicillin

Show this video demonstration at any convenient time after the participants have read section 4.2 before they start working on Exercise G.

Use GHM video entitled Preparing and giving oral amoxicillin (duration 6:41 minutes).

When all the participants are ready, arrange for them to move to where the video exercise will be shown. Make sure they bring their manuals and chart booklets.

To show the video:

1. Tell participants that they will watch a demonstration of how prepare amoxicillin in powder, how to give oral amoxicillin by a syringe, by a spoon, or by a palady, how to give dispersible tablets or standard tablets of amoxicillin, how to label medicine and explain to the caretaker how to give it to the young infant.

2. Ask if participants have any questions before you start the video. When there are no additional questions, start the video.
3. At the end of the video, lead a short discussion. If participants are not clear about the assessment of any signs, rewind the video and show the relevant portions again.

20. Drill: Determining the correct amount of gentamicin, ampicillin, and amoxicillin to give per dose

Lead this drill after the video demonstration or at any convenient time after participants have read section 4.2 before they start working on Exercise G.

Explain that you will call out the weight of a young infant who needs a dose of gentamicin, ampicillin, and amoxicillin.

Ask participants to refer to their chart booklets (page 14) to determine the correct dose of gentamicin, ampicillin, or amoxicillin for the young infant.

Call out the weight in the left column below. Ask participants, in turn, to tell you the dose of one of the antibiotics. Repeat some of the weights or call out different ones as needed to give every participant practice.

Weight	Gentamicin injection once daily for 7 days		Ampicillin Strength 250 mg/1.5 ml	Amoxicillin Dispersible tablet 125 mg/ Syrup 125 mg/5 ml
	Strength 20 mg/ml	Strength 40 mg/ml		
1.8 kg	0.4 ml	0.2 ml	0.8 ml	5 ml / 1 tab
2.7 kg	0.8 ml	0.4 ml	1.2 ml	5 ml / 1 tab
4.4 kg	1.2 ml	0.6 ml	1.5 ml	10 ml / 2 tabs
5.0 kg	1.2 ml	0.6 ml	1.5 ml	10 ml / 2 tabs
3.2 kg	0.8 ml	0.4 ml	1.2 ml	5 ml / 1 tab

21. EXERCISE G: Individual work followed by individual feedback – Determine whether young infant needs referral and identify treatments needed, including antibiotics with dosages; further assess and classify a young infant who needs referral but referral is not feasible; list the actions to take, including any treatments, dosages and schedule for antibiotics, and advice to give to the mother

Before the participants start working on the exercise, make sure that they know how to use the back side of the Recording Form.

If needed:

Show the participants how to fold the “Classify” column of the Recording Form so that it can be seen while looking at the back of the form.

Tell the participants:

- Look at the ASSESS & CLASSIFY chart to find the treatments needed for each classification.
- List treatments needed on the back of the form, across from the classification.
- Write only the relevant treatments. For example “Advise when to return immediately” is already on the form, so does not need to be written again.
- If the same treatment is needed for more than one classification, you only need to list it once.
- Follow-up times are listed in the treatments. If you list several follow-up times, you will tell the mother the earliest, definite time. This is the time to record in the designated space on the recording form. If the infant has diarrhoea, you may also need to tell the mother about earlier follow-up that may be needed if the diarrhoea is not improving.

Part 1: Determine whether young infant needs referral and identify treatments needed, including antibiotics with dosages

When giving individual feedback, compare the participant’s recording forms with the back sides of the Answer Sheets for the 7 case studies. You may now give the answer sheets to the participant.

In their answers, participants should select the first-line oral antibiotic recommended for the infant’s problem on their country’s own chart. The answer sheets assume that amoxicillin is the first-line oral antibiotic, but if the country recommends a different medicine, it would be a correct answer.

After checking all the treatments listed for all the cases, discuss with the participant the need to quickly give some breastmilk or sugar water to the three infants who will be referred, case 1 (Henri), case 4 (Robert), and case 7 (Neera). Review with the participant why this is needed, that is, to prevent or treat low blood sugar (hypoglycaemia), which can cause brain damage. Discuss the difference in the three young infants:

Robert (Case 4) is awake and normally breastfeeds well, Neera (Case 7) does not breastfeed well but can breastfeed, so their mothers can probably quickly breastfeed them, whereas Henri (Case 1) is not feeding at all. He will need to be given some breastmilk or sugar water by NG tube.

Ask the participants to read sections 4.9 through 4.13.

Answers to Exercise G – Part 1

CASE 1: HENRI

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Give first dose intramuscular gentamicin: 0.8 ml and ampicillin 1.2 ml

Treat to prevent low blood sugar: Give 30 ml expressed breast milk or sugar water by nasogastric tube

Teach how to keep the young infant warm on the way to the hospital

Refer urgently to hospital

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in _____ days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 2: SASHIE

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Give amoxicillin to give at home: 1 dispersible tablet (125 mg) twice daily for 5 days

Teach the mother how to give oral medicine at home

Teach mother to treat skin pustules at home. Give her full strength gentian violet (0.5%) to paint the skin pustules twice daily for 5 days

Advise on home care for the young infant

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in 2 days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 3: EBAI

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Give amoxicillin to give at home: 1 dispersible tablet (125 mg) twice daily for 7 days

Teach the mother how to give oral medicine at home

F/up in 3 days

Advise to increase frequency of breastfeeding (8 or more times in 24 hours).
Breastfeed as often and for as long as the infant wants, day and night.

F/up in 2 days

Give immunizations: OPV0, BCG1, HepB 0

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in 2 days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 4: ROBERT

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Treat to prevent low blood sugar: breastfeed

Refer urgently to hospital

Teach the mother how to keep the infant warm on the way to the hospital

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in _____ days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 5 : ALICE

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Advise the mother to give home care for the young infant.

Advise her to return immediately if palms or soles appear yellow.

F/up: 1 day

Advise to increase frequency of breastfeeding (8 or more times in 24 hours).
Breastfeed as often and for as long as the infant wants, day and night.

F/up: 2 days

Give immunizations: OPV0, BCG1, HepB 0

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in 1 days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 6: JENNA

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Give fluid and breastmilk for some dehydration (Plan B).

- Give 200 – 450 ml of ORS solution over 4 hours in clinic.
- Show the mother how to give ORS solution.
- After 4 hours, reassess the child for dehydration and select plan to continue treatment.
- Explain the rules of home treatment for the young infant.

F/up: 2 days if not improving

Give cotrimoxazole prophylaxis 2.5 ml once a day

Continue ARV prophylaxis

Do virological test for the child

Advise the mother on home care

F/up for HIV exposed: per national guidelines

Teach correct positioning and attachment for breastfeeding

Advise to increase frequency of feeding (8 or more times in 24 hours)

Counsel mother about breastfeeding more, reducing other foods or drinks, and using a cup.

F/up for Feeding problem in 2 days

F/up for Low weight for age in 14 days

Advise how to feed and keep low weight infant warm at home.

Give immunization: OPV-1, DPT-1+HIB-1+HepB-1, Rotavirus-1, PCV-1
(HepB0 is not given if infant is older than 2 weeks).

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in 2 days.

Teach her signs to return immediately.

Answers to Exercise G – Part 1

CASE 7: NEERA

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Give first dose of intramuscular gentamicin: 1.2 ml and ampicillin 1.5 ml

Treat to prevent low blood sugar: breastfeed

Refer urgently to hospital

Teach mother how to keep the young infant warm on the way to the hospital

Give any immunizations and feeding advice needed today.

Ask the mother to return for follow up in _____ days.

Teach her signs to return immediately.

Part 2: Further assess and classify a young infant who needs referral but referral is not feasible; list the actions to take, including any treatments, dosages and schedule for antibiotics, and advice to give to the mother

When giving individual feedback, compare the participant's answers with those below. Discuss any differences as needed.

1. Neera's further classification is *CLINICAL SEVERE INFECTION*
2. Can she be treated as an outpatient?

YES. The best possible treatment for an infant with a very severe illness is at a hospital. However, in this case the referral is not feasible. Neera does not have signs of CRITICAL ILLNESS which must be treated in hospital and can be treated as an outpatient.

3. List below all the treatments to give Neera including the dosage and schedule of any medicines and advice to the mother.

For CLINICAL SEVERE INFECTION

- *Once daily IM gentamicin 1.2 ml for 7 days (or for 2 days depending on national recommendations)*
- *Twice daily 1 dispersible tablet (250 mg) amoxicillin for 7 days*
- *Treat to prevent low blood sugar: breastfeeding*
- *Teach the mother how to keep the young infant warm at home*
- *Advise mother to return for the next injection tomorrow*
- *Reassess the young infant at each visit.*

For LOCAL BACTERIAL INFECTION

- *Give amoxicillin for 5 days.*
- *Teach mother to treat umbilical infection with full strength gentian violet (0.5%) twice daily for 5 days*
- *Advise mother to give home care for the young infant.*
- *F/up for LOCAL BACTERIAL INFECTION in 2 days*

22. Participants read sections 4.9 through 4.13.

23. EXERCISE H: Part 1 – Video demonstration of how to help a mother to improve her baby's positioning and attachment for breastfeeding

Show WHO video on breastfeeding positioning and attachment (duration 5:44).

When all the participants are ready, arrange for them to move to where the video will be shown. Make sure they bring their Chart Booklets.

If it is possible in the room where the video is shown, display the enlargement of "Teach Correct Positioning and Attachment for Breastfeeding."

To show the video:

1. Tell participants that they will watch a demonstration of helping a mother to improve positioning and attachment for breastfeeding.
2. Ask if participants have any questions before you start the video. When there are no additional questions, start the video.
3. At the end of the video, lead a short discussion. Ask participants to look at the box, "Teach Correct Positioning and Attachment for Breastfeeding." Explain that the video showed exactly these steps. Then make the following points:
 - Good positioning is important for good attachment. A baby who is well positioned can take a good mouthful of breast.
 - Review the four steps to help her position the infant. (As you speak, point to the steps on the enlargement.)
 - When you explain to a mother how to position and attach her infant, let her do as much as possible herself.
 - Then review the 3 steps to help the infant to attach.
 - Check for signs of good attachment and effective suckling. It may take several attempts before the mother and baby are able to achieve good attachment.

If participants are not clear about the steps, show the video again.

24. EXERCISE H: Part 2 – Photographs – Group discussion of example photographs. Individual work, then group discussion – Recognizing signs of good positioning

This exercise uses photographs numbered 24 through 29.

Talk about the first three photographs by describing or asking participants to describe the signs of good and poor positioning in each photograph.

Ask participants to work individually and study each remaining photograph to identify the signs of good or poor positioning. They should record whether each of the signs of good positioning is present and write any comments about the infant's attachment.

Give feedback in a group discussion:

Display the enlargement of "Teach Correct Positioning and Attachment for Breastfeeding."

For each photograph, ask a participant to explain the signs of good or poor position (such as baby's body is twisted away from mother). After the photograph has been assessed, ask a participant what he would advise this woman to do differently to improve her baby's position (for example, hold the baby closer to her body, with the baby's head and body straight.) During this discussion, have the participants continually refer to the enlargement (or to the box on the *YOUNG INFANT* chart, "Teach Correct Positioning and Attachment for Breastfeeding") so that they repeat and learn all the correct steps.

Tell participants that when teaching a mother to position and attach her infant for breastfeeding, the health worker can place her hand on the mother's arm or hand to guide it into the appropriate position.

Ask the participants to read section 4.14.

MANAGEMENT OF THE SICK YOUNG INFANT

Answers to Exercise H

PHOTO	SIGNS OF GOOD POSITIONING				COMMENTS ON ATTACHMENT
	Infant's head and body in line	Infant approaches breast with nose opposite to the nipple	Infant held close to mother's body	Infant's whole body supported	
24	yes	yes	yes	yes	
25	yes	yes	yes	yes	
26	no – neck turned, so not straight with body	no	no – turned away from mother's body	no	Not well attached: areola equal above top lip and below bottom lip, mouth not wide open, lower lip not turned out
27	no	no – body turned away	no – body not close	no – only neck and shoulders supported	Not well attached: mouth not wide open, lower lip not turned out, more areola below than above
28	yes	yes	yes – very close	yes	Good attachment: chin touching breast
29	no – head and neck twisted and bent forward, not straight with body	no – body turned away	no – not close	no – only neck and shoulders supported	Not well attached: mouth not wide open

25. EXERCISE I: Video demonstration of showing a mother how to express breast milk, keep a young infant warm at home, feed by cup, and how to treat thrush

Show video demonstrations on expressing breastmilk (section 0:00 – 2:59), keep low weight infant warm at home (section 3:00 – 5:14), and teaching the mother how to feed by cup (section 5:15 – 7:37).

Then show video demonstrations on thrush treatment (duration 2:56).

When all the participants are ready, arrange for them to move to where the video will be shown. Make sure they bring their Chart Booklet.

To show the video demonstration:

1. Tell participants that they will watch several demonstrations. First they will see demonstrations of showing a mother how to express breastmilk, keep a young infant warm at home, and feed by a cup. Then they will see a demonstration of how to treat thrush.
2. Ask if participants have any questions before you start the first video. When there are no additional questions, start the video.
3. At the end of the video, lead a short discussion. Ask participants to tell you the steps shown in each part of the video.
4. Then start the second video on thrush.
5. At the end of the video, lead a short discussion. Point out to the participants that in the GHM video full strength gentian violet (0.5%) is used while IMCI guidelines recommend half-strength (0.25%). Also different is the recommendation about the duration of treatment: according to GHM video it is: “few days after the thrush has cleared”, according to IMCI guidelines 7 days. Ask participants to tell you the steps shown in each part of the video.

Ask participants to read section 4.15 and 4.16 and then do Exercise J individually.

26. EXERCISE J: Individual work followed by individual feedback – Describing treatment for young infants, including treatment for local infection and home care

Compare the participant’s answers to the answer sheet. If there are differences, refer to the chart and have the participant locate the correct instructions.

MANAGEMENT OF THE SICK YOUNG INFANT

Answers to Exercise J

CASE 2: SASHIE

- Steps that her mother should take to treat the skin pustules at home:
 - *Wash hands*
 - *Gently wash off pus and crusts with soap and water*
 - *Dry the area*
 - *Paint with gentian violet*
 - *Wash hands*
- How often should her mother treat the skin pustules? *Twice each day*
- For how many days? *Five*
- The 3 main points to advise the mother about home care are:
 - *Food/Fluids: Breastfeed frequently, as often and for as long as the infant wants, day and night, during sickness and health*
 - *When to return*
 - *Make sure the young infant stays warm at all times*
- What would you tell Sashie's mother about when to return?
 - *Return in 2 days for follow-up (to be sure the skin pustules are improving).*
 - *Return immediately if Sashie is breastfeeding poorly, has reduced activity, becomes sicker, develops a fever, feels unusually cool, or if breathing becomes fast or difficult.*

27. DRILL: Review of points of advice for mothers of young infants

Conduct this drill at a convenient time after this point in the module. If possible, do the drill before the participants go to the last clinical session which should include counselling for mothers of young infants.

Tell the participants that in this drill, they will review important points of advice for mothers of infants, including

- improving positioning and attachment for breastfeeding
- home care.

They may look at the *YOUNG INFANT* chart if needed, but should try to learn these points so they can recall them from memory.

Ask the question in the left column. Participants should answer in turn. When a question has several points in the answer, you may ask each participant to give **one** point of the answer. This will move along smoothly and quickly if participants are setting in a circle or semi-circle and they reply in order.

QUESTIONS	ANSWERS
When advising a mother about Home Care for a young infant, what are the three major points of advice?	<i>Exclusively breastfeed When to return Make sure the young infant stays warm</i>
What is the advice to give about food and fluids?	<ul style="list-style-type: none"> - <i>Breastfeed frequently, as often and for as long as the infant wants, day and night, during sickness and health.</i> - <i>Exclusive breastfeeding is best.</i> - <i>Do not use a bottle.</i>
What are the signs to teach a mother to return immediately with the young infant?	<i>Return immediately with the young infant if:</i> <ul style="list-style-type: none"> - <i>Breastfeeding poorly</i> - <i>Reduced activity</i> - <i>Becomes sicker</i> - <i>Develops a fever</i> - <i>Feels unusually cold</i> - <i>Fast breathing</i> - <i>Difficult breathing</i> - <i>Palms and soles appear yellow</i>
What is another reason that a mother may return with the young infant?	<i>Return for a follow-up visit as scheduled. Return for immunization.</i>
If a young infant has a feeding problem, when should the mother bring him back for follow-up?	<i>On day 3</i>
What advice would you give about keeping the infant warm?	<i>In cool weather, cover the infant's head and feet and dress the infant with extra clothing.</i>
What are the four signs of good attachment?	<ul style="list-style-type: none"> - <i>Chin touching breast</i> - <i>Mouth wide open</i> - <i>Lower lip turned outward</i> - <i>More areola visible above than below the mouth</i>
Describe effective suckling.	<i>The infant takes slow, deep sucks, sometimes pausing.</i>
When you help a mother hold and position her infant for breastfeeding, what are 4 points to show her?	<i>Show her how to hold the infant</i> <ul style="list-style-type: none"> - <i>with the infant's head and body straight</i> - <i>facing her breast, with infant's nose opposite her nipple</i> - <i>with infant's body close to her body</i> - <i>supporting infant's whole body, not just neck and shoulders</i>
To show a mother how to help her infant attach, what are 3 points to show her?	<i>She should</i> <ul style="list-style-type: none"> - <i>touch her infant's lips with her nipple</i> - <i>wait until her infant's mouth is opening wide</i> - <i>move her infant quickly onto her breast, aiming the infant's lower lip well below the nipple</i>
When the infant has attached, what should you do?	<i>Look for the signs of good attachment and effective suckling.</i>
Again, what are the signs of good attachment?	<ul style="list-style-type: none"> - <i>Chin touching breast</i> - <i>Mouth wide open</i> - <i>Lower lip turned outward</i> - <i>More areola visible above the mouth than below</i>
If attachment or suckling is not good, what should you do?	<i>Ask the mother to take the infant off the breast. Help the mother position and attach the infant again.</i>

28. Participants read section 5.0 Give follow up care for the sick young infant and conclusion.

29. Summary of the module and review of the Conclusion

Review with participants the main skills covered in this module. These are listed in the learning objectives in the beginning of the module.

Review the conclusion with participants. Answer any questions. If simplified antibiotic treatment of sick young infants with possible severe bacterial infection or very severe disease **where referral is refused or not feasible** is a new/recent addition to IMCI practice, there may be questions about availability of the medicines at the primary health care facilities or their formulations.

There may also be questions about whether these regimens should replace referring to hospital. Emphasize that all sick young infants with Possible Severe Bacterial Infection or Very Severe Disease should be referred urgently after pre-referral treatment with antibiotics. Only where referral is refused or not feasible should the young infant be further assessed and classified and treated with a simplified antibiotic regimen if appropriate.

Review any points that you may have noted below:

ANNEXES

ANNEX A: PREPARING FOR THE COURSE

Careful planning and strong administrative support are essential before, during, and after the Possible Serious bacterial Infection (PSBI) course.

Clinical practice is an essential part of PSBI course. In addition to classroom work, each small group of participants visits an outpatient clinic or inpatient, where they practice the case management process of sick young infants. The clinical facilities and logistical arrangements required for conducting this course should not be under-estimated. It is critical to select a general location for the course (town or area) which has a suitable inpatient facility or NICU's. It is also critical to select suitable facilitators, some of whom may also be available to provide treatment and care during or after the course.

ANNEX B: INSTRUCTIONS FOR CLINICAL PRACTICE:

Day 1: 1.5 to 2 hours

Objective: To practice assessing and classifying a sick young infant

Activities: Select sick young infants 0–59 days old with signs of PSBI and other illnesses. Facilitator demonstrates how to use the recording form on the first case and then distributes other cases in pairs. During the session, the facilitator(s) should monitor the performance of the participants and complete Annex C: Skill Observation Form for Clinical Practice: Clinic Sick Young Infants 0 to 59 Days. At the end of the session, facilitator summarizes the findings and asks participants to mark on Annex D: Group checklist of signs in young infants aged 0 up to 2 Months.

Day 2: 1 to 1.5 hours

Objective: To practice preparation of gentamicin injection. This part of the clinical practice could be done either in the wards or outpatient or even in the classroom if the medicines and other supplies are made available.

Preparation and giving injections of gentamicin is included as Exercise F, Part 2. Practicing amoxicillin dosages may be included in additional time.

Activities: For gentamicin see Exercise F, Part 2, for amoxicillin follow the guidance in the manual.

Day 3: 1.5 to 2 hours.

Two groups – one group is taken to the NICU and the other group to the Maternity ward.

Objective: To assess and classify sick young infants, decide on referral. Another group practices on breastfeeding attachment and positioning. The two groups interchange mid-way during the session.

Activities: Facilitator may ask some mothers not to feed their babies in the maternity ward so that they can practice Breastfeeding techniques. Do begin by demonstrating on BF attachment and positioning on one young infant and ask participants to pair and practice. For the other group the facilitator demonstrates identifying treatments for a sick young infant using the recording form and asks participants to do the same on other cases. Distribute patients based on patient load. During the session, the facilitator(s) should monitor the performance of the participants and complete Annex C: Skill Observation Form for Clinical Practice: Clinic Sick Young Infants 0 to 59 Days. At the end of the session, summarize and ask participants to complete Annex D: Group checklist of signs in young infants aged 0 up to 2 Months.

Criteria for Selecting Sites for Clinical Practice

Basically, the selected facilities must have a sufficient case load, acceptable quality of care, and a director and staff who are interested in the course and willing and able to cooperate. In order for participants to practice clinical management with as many sick infants as possible, the clinical practice sessions should take place in facilities where many sick newborns are present each day with signs related to PSBI.

Within or immediately adjacent to the outpatient clinics, there should be a large well-lit area or two smaller areas (such as exam rooms) where participants can assess patients. These areas should be relatively calm and quiet, so that children who are being assessed will remain calm when their signs are assessed. They must be near enough to the main treatment area of the clinic

that children are easily returned to clinic and any emergencies can be managed by the regular clinic staff.

Select a facility with an inpatient ward that admits young infants age up to 2 months with common neonatal problems as well as *severe illnesses such as pneumonia and meningitis*. The facility should have a maternity wing where participants could practice breastfeeding techniques.

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.)

ANNEX C: FACILITATION TECHNIQUES

What is a FACILITATOR?

A facilitator is a person who helps the participants learn the skills presented in the course. The facilitator spends much of his time in discussions with participants, either individually or in small groups. For facilitators to give enough attention to each participant, a ratio of one facilitator to 3 to 4 participants is desired. In your assignment to teach this course, YOU are a facilitator.

As a facilitator, you need to be very familiar with the material being taught. It is your job to give explanations, do demonstrations, answer questions, talk with participants about their answers to exercises, conduct role plays, lead group discussions, organize and supervise clinical practice in outpatient clinics, and generally give participants any help they need to successfully complete the course. You are not expected to teach the content of the course through formal lectures. (Nor is this a good idea, even if this is the teaching method to which you are most accustomed.)

What DOES a FACILITATOR do?

As a facilitator, you do 3 basic things:

1. INSTRUCT:

- Make sure that each participant understands how to work through the materials and what he is expected to do in each module and each exercise.
- Answer the participant's questions as they occur.
- Explain any information that the participant finds confusing, and help him understand the main purpose of each exercise.
- Lead group activities, such as group discussions, oral drills, video exercises, and role plays, to ensure that learning objectives are met.
- Promptly assess each participant's work and give correct answers.
- Discuss with the participant how he obtained his answers in order to identify any weaknesses in the participant's skills or understanding.
- Provide additional explanations or practice to improve skills and understanding.
- Help the participant to understand how to use skills taught in the course in his own clinic.
- Explain what to do in each clinical practice session.
- Model good clinical skills, including communication skills, during clinical practice sessions.
- Give guidance and feedback as needed during clinical practice sessions.

2. MOTIVATE:

- Compliment the participant on his correct answers, improvements or progress.
- Make sure that there are no major obstacles to learning (such as too much noise or not enough light).

3. MANAGE:

- Plan ahead and obtain all supplies needed each day, so that they are in the classroom or taken to the clinic when needed.
- Make sure that movements from classroom to clinic and back are efficient.
- Monitor the progress of each participant.

How do you do these things?

- Show enthusiasm for the topics covered in the course and for the work that the participants are doing.
- Be attentive to each participant's questions and needs. Encourage the participants to come to you at any time with questions or comments. Be available during scheduled times.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers, or not turning pages. These are clues that the participant may need help.
- Promote a friendly, cooperative relationship. Respond positively to questions (by saying, for example, "Yes, I see what you mean," or "That is a good question."). Listen to the questions and try to address the participant's concerns, rather than rapidly giving the "correct" answer.
- Always take enough time with each participant to answer his questions completely (that is, so that both you and the participant are satisfied).

What NOT to do.....

- During times scheduled for course activities, do not work on other projects or discuss matters not related to the course.
- In discussions with participants, avoid using facial expressions or making comments that could cause participants to feel embarrassed.
- Do not call on participants one by one as in a traditional classroom, with an awkward silence when a participant does not know the answer. Instead, ask questions during individual feedback.
- Do not lecture about the information that participants are about to read. Give only the introductory explanations that are suggested in the Facilitator Guide. If you give too much information too early, it may confuse participants. Let them read it for themselves in the modules.
- Do not review text paragraph by paragraph. (This is boring and suggests that participants cannot read for themselves.) As necessary, review the highlights of the text during individual feedback or group discussions.
- Avoid being too much of a showman. Enthusiasm (and keeping the participants awake) is great, but learning is most important. Keep watching to ensure that participants are understanding the materials. Difficult points may require you to slow down and work carefully with individuals.
- Do not be condescending. In other words, do not treat participants as if they are children. They are adults.
- Do not talk too much. Encourage the participants to talk.
- Do not be shy, nervous, or worried about what to say. This Facilitator Guide will help you remember what to say. Just use it!

Techniques for Motivating Participants

Encourage Interaction

During the first day, you will talk individually with each participant several times (for example, during individual feedback). If you are friendly and helpful during these first interactions, it is likely that the participants (a) will overcome their shyness; (b) will realize that you want to talk with them; and (c) will interact with you more openly and productively throughout the course.

Look carefully at each participant's work (including answers to short-answer exercises). Check to see if participants are having any problems, even if they do not ask for help. If you show interest and give each participant undivided attention, the participants will feel more compelled to do the work. Also, if the participants know that someone is interested in what they are doing, they are more likely to ask for help when they need it.

Be available to the participants at all times.

Keep Participants Involved in Discussions

Frequently ask questions of participants to check their understanding and to keep them actively thinking and participating. Questions that begin with “what,” “why,” or “how” require more than just a few words to answer. Avoid questions that can be answered with a simple “yes” or “no.”

After asking a question, PAUSE. Give participants time to think and volunteer a response. A common mistake is to ask a question and then answer it yourself. If no one answers your question, rephrasing it can help to break the tension of silence. But do not do this repeatedly. Some silence is productive.

Acknowledge all participants’ responses with a comment, a “thank you” or a definite nod. This will make the participants feel valued and encourage participation. If you think a participant has missed the point, ask for clarification, or ask if another participant has a suggestion. If a participant feels his comment is ridiculed or ignored, he may withdraw from the discussion entirely or not speak voluntarily again.

When answering participants’ questions show interest and be positive. Encourage participants to ask questions when they have them rather than to hold the questions until a later time.

Do not feel compelled to answer every question yourself. Depending on the situation, you may turn the question back to the participant or invite other participants in a positive way to stimulate discussion. You may need to discuss the question with the Course Director or another facilitator before answering. Be prepared to say “I don’t know but I’ll try to find out.”

Use names when you call on participants to speak, and when you give them credit or thanks. Use the speaker’s name when you refer back to a previous comment.

Always maintain eye contact with the participants so everyone feels included. Be careful not to always look at the same participants. Looking at a participant for a few seconds will often prompt a reply, even from a shy participant.

Keep the Session Focused and Lively

Write key ideas on a flipchart as they are offered. (This is a good way to acknowledge responses. The speaker will know his suggestion has been heard and will appreciate having it recorded for the entire group to see.)

When recording ideas on a flipchart, use the participant’s own words if possible. If you must be more brief, paraphrase the idea and check it with the participant before writing it. You want to be sure the participant feels you understood and recorded his idea accurately.

Do not turn your back to the group for long periods as you write.

At the beginning of a discussion, write the main question on the flipchart. This will help participants stay on the subject. When needed, walk to the flipchart and point to the question.

Paraphrase and summarize frequently to keep participants focused. Ask participants for clarification of statements as needed. Also, encourage other participants to ask a speaker to repeat or clarify his statement.

Restate the original question to the group to get them focused on the main issue again. If you feel someone will resist getting back on track, first pause to get the group’s attention, tell them they have gone astray, and then restate the original question.

Techniques for Assisting Co-facilitators

Spend some time with the co-facilitator when assignments are first made. Exchange information about prior teaching experiences and individual strengths, weaknesses and preferences. Agree on roles and responsibilities and how you can work together as a team.

Assist one another in providing individual feedback and conducting group discussions. For example, one facilitator may lead a group discussion, and the other may record the important ideas on the flipchart. The second facilitator could also check the Facilitator Guide and add any points that have been omitted.

Each day, review the teaching activities that will occur the next day (such as role plays, demonstrations, and drills), and agree who will prepare the demonstration, lead the drill, play each role, collect the supplies, etc.

Work together on each module rather than taking turns having sole responsibility for a module. When Participants are working, look available, interested and ready to help.

When Providing Individual Feedback:

Before giving individual feedback, refer to the appropriate notes in this guide to remind yourself of the major points to make. Compare the participant's answers to the answer sheet provided. If the answer sheet is labelled "Possible Answers," the participant's answers do not need to match exactly, but should be reasonable. If exact answers are provided, be sure the participant's answers match. If the participant's answer to any exercise is incorrect or is unreasonable, ask the participant questions to determine why the error was made. There may be many reasons for an incorrect answer. For example, a participant may not understand the question, may not understand certain terms used in the exercise, may use different procedures at his clinic, may have overlooked some information about a case, or may not understand a basic process being taught.

Once you have identified the reason(s) for the incorrect answer to the exercise, help the participant correct the problem. For example, you may only need to clarify the instructions. On the other hand, if the participant has difficulty understanding the process itself, you might try using a specific case example to show step-by-step how the case management charts are used for that case. After the participant understands the process that was difficult, ask him to work the exercise or part of the exercise again.

Summarize, or ask the participant to summarize, what was done in the exercise and why. Emphasize that it is most important to learn and remember the process demonstrated by the exercise

Always reinforce the participant for good work by commenting on his understanding, showing enthusiasm for ideas for application of the skill in his work, telling the participant that you enjoy discussing exercises with him, letting the participant know that his hard work is appreciated.

When Leading a Group Discussion:

Plan to conduct the group discussion at a time when you are sure that all participants will have completed the preceding work. Wait to announce this time until most participants are ready, so that others will not hurry. Before beginning the discussion, refer to the appropriate notes in this guide to remind yourself of the purpose of the discussion and the major points to make. Always begin the group discussion by telling the participants the purpose of the discussion.

ANNEX D: RECORDING FORM

IMCI Recording Form: MANAGEMENT OF THE SICK YOUNG INFANT AGE BIRTH UP TO 2 MONTHS

Name: _____ Age: _____ Sex: _____ Weight: _____ Temperature: _____

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

ASSESS (Circle all signs present)

CLASSIFY

CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL 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
- Measure temperature
High body temperature (temperature $> 38^{\circ}\text{C}$) or
Low body temperature (below 35.5°C)
- Look at young infant's movements.
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

- Is skin yellow?
And infant is less than 24 hours of age?
- Are the palms or soles yellow?

DOES THE YOUNG INFANT HAVE DIARRHOEA?

Yes _____ No _____

If yes, ASK:

- Look at the young infant's general condition.
Is the infant restless and irritable?
Does the infant move only when stimulated?
Does the infant not move at all?
- Look for sunken eyes.
Pinch the skin of the abdomen. Does it go back:
Very slowly (longer than 2 seconds)? _____ Slowly?

CHECK FOR HIV INFECTION

ASK: HIV status of the mother? Positive _____ Negative _____ Unknown _____
HIV serological test of the infant? Positive _____ Negative _____ Unknown _____
HIV virology test of the infant? Positive _____ Negative _____ Unknown _____

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 (< 2 kg) _____
Low weight for age (< -2 Z score) _____
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 B0 _____ OPV0 _____ DPT1+Hib1+Hep B1 _____ OPV-1 _____ Rotavirus-1 _____ PCV-1 _____

Return for next immunization on:

ASSESS OTHER PROBLEMS:

COUNSEL THE MOTHER ABOUT HER OWN HEALTH

ANNEX E: SKILL OBSERVATION FORM FOR CLINICAL PRACTICE: SICK YOUNG INFANTS AGED 0 UP TO 2 MONTHS

Facilitator/Observer:

Date: Circle day of course: 1 2 3 4 5 6

Tick a skill under participant's initials when observed to perform skill satisfactorily.

Skills Observed	Participant's Initials				
<i>Asks or looks for child's problems</i>					
Difficulty in feeding					
Convulsions/fits					
Jaundice					
Diarrhoea					
<i>HIV infection</i>					
Breathing rate					
Chest indrawing					
Temperature					
Infant's movements					
Umbilicus red or draining pus					
Skin pustules					
Yellow palms or soles					
Sunken eyes/ skin pinch if diarrhoea is present					
Checks HIV status of the mother and young infant					
Checks weight					
<i>Assesses breastfeeding attachment and positioning</i>					
Decides urgent referral					
Counsels on urgent referral					
<i>Determines appropriate pre-referral treatment</i>					
Chooses pre-referral treatment					
<i>Determines if referral is refused or not accepted</i>					
Chooses correct antibiotic and dosage for PSBI where referral is refused					
Helps caregiver to give first dose now					
Checks caregiver's understanding of how to give treatment					
Check expiration date of all medicines					
Advises on giving more fluids and continued feeding					
Advises on when to return					
Schedules appointment for follow up					
<i>Vaccination status</i>					
Checks and determines vaccination status					

ANNEX F: GROUP CHECKLIST OF SIGNS IN YOUNG INFANTS AGE 0 UP TO 2 MONTHS

(Note: These signs may also be observed in older infants and children age 2 months up to 5 years.)

Fast breathing in young infant	Mild chest indrawing in young infant (normal)	Severe chest indrawing in young infant	Not feeding well on observation
Unable to feed at all	Convulsions	No movement at all on stimulation	Movement when stimulated
Temperature 35.5° Celsius or less	Temperature 38° Celsius or more	Umbilicus red or discharging	Skin pustules
Breastfeeding: No attachment at all	Not well attached to breast	Not suckling effectively	Not suckling at all
Yellow skin	Yellow soles or palms	Oral thrush	Sunken eyes and/or delayed skin pinch

ANNEX G: INSTRUCTIONAL MATERIALS, SUPPLIES AND MEDICINES NEEDED FOR THE COURSE

INSTRUCTIONAL MATERIALS:

- Facilitator Guide: 1 for each facilitator
- Participant manual: 1 set for each participant
- A set of video clips.
- Young Infant Recording Forms (for exercises in the module): 7 for each participant, plus some extras
- Group Checklist of Clinical Signs : 1 checklist
- Set of Answer Sheets: 1 for each participant
- Bag or box of drugs (amoxicillin dispersible tablets, gentamicin vials and syringes)

OTHER SUPPLIES NEEDED IN THE CLASSROOM

- name tag and holder
- pencils, pencil sharpener, eraser, paper/notebook , ball point pen
- folder or large envelope to collect answer sheets
- felt tip pen
- clipboard to hold Recording forms and to write on during clinical practice
- paper clips
- 2 rolls transparent tape
- rubber bands
- stapler and staples, staple remover
- 1 roll masking tape of adequate quality to fasten large charts and flipcharts to wall
- scissors
- flipchart pad and markers or blackboard and chalk
- pink, yellow and green highlighters to colour chart booklets if necessary

SUPPLIES FOR DEMONSTRATIONS, ROLE PLAYS AND GROUP ACTIVITIES FOR EACH SMALL GROUP:

- a baby doll (or a rolled up towel to represent a baby)
- sharps container (or other safe container for disposal of needles) and fruits such as oranges to practice injecting
- Gentamicin vials and ampoules as well as amoxicillin syrup or dispersible tablets
- ORS packets, clean drinking water, common spoons for mixing ORS
- litre measure or other measuring container
- several containers used commonly in local area
- glass or cup for tasting ORS solution

Near the classrooms, all groups need access to the following equipment and supplies, to be shared by the groups:

- A photocopy machine, projector, laptop, or video player and monitor.



For more information, please contact:

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