DISTANCE LEARNING COURSE

Module 2

The sick young infant
Integrated Management of Childhood Illness: distance learning course.


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Lulu Muhe of the WHO Department of Maternal, Newborn, Child and Adolescent Health (MCA) led the development of the materials with contributions to the content from WHO staff: Rajiv Bahl, Wilson Were, Samira Aboubaker, Mike Zangenberg, José Martines, Olivier Fontaine, Shamim Qazi, Nigel Rollins, Cathy Wolfheim, Bernadette Daelmans, Elizabeth Mason, Sandy Gove, from WHO/Geneva as well as Teshome Desta, Sirak Hailu, Iriya Nemes and Theopista John from the African Region of WHO.

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2.1 MODULE OVERVIEW

As you learned in your first face-to-face meeting, young infants up to 2 months of age have special characteristics that must be considered when classifying their health conditions.

MODULE LEARNING OBJECTIVES

After you study this module, you will know how to:

✔ Assess a young infant for very severe disease and local bacterial infection
✔ Recognize the clinical signs for assessing jaundice
✔ Check for a feeding problem or low weight
✔ Assess breastfeeding
✔ Classify a young infant for very severe disease and local bacterial infection using IMCI charts
✔ Classify for jaundice and diarrhoea using IMCI charts
✔ Provide pre-referral treatment to a young infant with very severe disease
✔ Treat a young infant with oral or intramuscular antibiotics
✔ Teach correct positioning and attachment for breastfeeding
✔ Teach the mother how to express breast milk and feed the infant by a cup
✔ Teach the caregiver to treat local bacterial infections and thrush at home
✔ Give follow-up care for the sick young infant

MODULE ORGANIZATION: WHY IS THIS MODULE SPLIT INTO PARTS?

Module 2 is a very large module because there is a lot to learn about care for the sick young infant. As such, the module is split into two parts. Each contains the following sections:

PART I

This part focuses on how to assess, classify, treat, and provide follow-up care for the young infant’s common symptoms.

- SPECIAL CARE FOR YOUNG INFANTS
- IMCI TOOLS FOR THE SICK YOUNG INFANT
- ASSESS & CLASSIFY THE SICK YOUNG INFANT
- TREAT THE SICK YOUNG INFANT
- FOLLOW-UP

PART II

As infant feeding is such an important part of care, this part focuses on feeding and how to counsel the caregiver.

- ASSESS & CLASSIFY FEEDING PROBLEMS OR LOW WEIGHT
- COUNSEL THE CAREGIVER ON INFANT FEEDING
- COUNSEL THE CAREGIVER ON INFANT CARE
WHAT DOES THE IMCI PROCESS LOOK LIKE FOR THE SICK YOUNG INFANT?

You learned in your 1st face-to-face meeting that IMCI for the sick young infant follows the same major steps of the IMCI process for the sick child. However, IMCI for the sick young infant has some different signs and symptoms to assess. Some treatments are also age-appropriate. A flow chart for using IMCI for the sick young infant is below:

IMCI FOR THE SICK YOUNG INFANT (up to 2 months of age)

GREET THE CAREGIVER

ASK: child’s age (this chart is for sick young infant)
ASK: what are the infant’s problems?
ASK: initial or follow-up visit for problems?
MEASURE: weight and temperature

ASSESS FOR GENERAL DANGER SIGNS for very severe disease

Even if present

URGENT REFERRAL REQUIRED

IDENTIFY pre-referral treatment
URGENTLY REFER

ASSESS MAIN SYMPTOMS
- Jaundice
- Diarrhoea
- HIV status or mother’s HIV status
- Feeding problem and growth
- Check immunizations
- Assess other problems and mother’s health

TREAT IN CLINIC (YELLOW)

REFERRAL NOT REQUIRED

IDENTIFY TREATMENT
TREAT
COUNSEL caretaker
FOLLOW-UP CARE

TREAT AT HOME (GREEN)

REFERRAL NOT REQUIRED

IDENTIFY TREATMENT
COUNSEL caretaker on home treatment
FOLLOW-UP CARE

WHAT JOB AIDS WILL YOU USE DURING THIS MODULE?

You have two aids for using IMCI with the sick young infant:

- IMCI CHART BOOKLET – YOUNG INFANT SECTION is an excellent reference tool. It provides instructions for assessing, classifying, and treating the sick young infant. It also includes instructions for counselling the caregiver and providing follow-up care.
**RECORDING FORM FOR SICK YOUNG INFANT** follows the charts for the sick young infant. This form is below. It can also be found in your logbook.

## WHAT RECORDING FORM IS USED FOR THIS MODULE?

### MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Weight (kg):</th>
<th>Temperature (°C):</th>
<th>Initial Visit?</th>
<th>Follow-up Visit?</th>
</tr>
</thead>
</table>

#### ASSESS (Circle all signs present)
- Has the infant had convulsions?
- Count the breaths in one minute. ___ breaths per minute. Repeat if elevated: ___ Fast breathing?
- Look for fever.
- Look and listen for grunting.
- Look at the umbilicus. Is it red or draining pus?
- Fever (temperature 38°C or above) or low body temperature (below 35.5°C or feels cool)
- Look for skin pustules. Are there many or severe pustules?
- Movement only when stimulated or no movement even when stimulated?

#### THEN CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION
- When did the jaundice appear first?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant's palms and soles. Are they yellow?

#### DOES THE YOUNG INFANT HAVE DIARRHOEA?
- Look at the young infant's general condition. Does the infant:
  - move only when stimulated?
  - not move even when stimulated?
  - Is the infant restless and irritable?
  - Look for sunken eyes.
  - Pinch the skin of the abdomen. Does it go back:
    - Very slowly?
    - Slowly?
    - Yes ___  No ___

#### THEN CHECK FOR JAUNDICE
- When did the jaundice appear first?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant's palms and soles. Are they yellow?

#### DOES THE YOUNG INFANT HAVE DIARRHOEA?
- Look at the young infant's general condition. Does the infant:
  - move only when stimulated?
  - not move even when stimulated?
  - Is the infant restless and irritable?
  - Look for sunken eyes.
  - Pinch the skin of the abdomen. Does it go back:
    - Very slowly?
    - Slowly?
    - Yes ___  No ___

#### THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT
- If the infant has no indication to refer urgently to hospital
  - Is there any difficulty feeding? Yes ___  No ___
  - If yes, how many times in 24 hours? ___ times
  - Does the infant usually receive any other foods or drinks? Yes ___  No ___
  - What do you use to feed the child?

#### CHECK FOR HIV INFECTION
- Note mother's and/or child's HIV status:
  - Mother's HIV test: NEGATIVE  POSITIVE  NOT DONE/KNOWN
  - Child's virological test: NEGATIVE  POSITIVE  NOT DONE
  - Child's serological test: NEGATIVE  POSITIVE  NOT DONE
- If mother is HIV positive and and NO positive virological test in young infant:
  - Was the infant breastfeeding at the time of test or 6 weeks before it?
  - If breastfeeding: Is the mother and infant on ARV prophylaxis?

#### ASSESS BREASTFEEDING
- Has the infant breastfed in the previous hour?
  - If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeeding for 4 minutes.
  - Is the infant able to attach? To check attachment, look for:
    - Chin touching breast: Yes ___  No ___
    - Mouth wide open: Yes ___  No ___
    - Lip turned outward: Yes ___  No ___
    - More areola above than below the mouth: Yes ___  No ___
  - Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?
    - not sucking effectively
    - sucking effectively

#### CHECK THE CHILD'S IMMUNIZATION STATUS (Circle immunizations needed today)
- BCG
- DPT+HIB-1
- DPT+HIB-2
- Hep B 1
- Hep B 2
- 200,000 IU vitamin A to mother

#### RETURN IMMUNIZATION ON: __________________ (Date)

#### ASSESS OTHER PROBLEMS:
- Ask about mother's own health
BEFORE YOU BEGIN

What do you know now about managing sick young infants?

Before you begin studying this module, quickly practice your knowledge with the questions below. Do not look up the answers. This is for your own exercise.

After you finish the module, you will answer the same questions. This will demonstrate to you what you have learned during the course of the module!

**Circle one answer for each question.**

1. Why do young infants require different care than sick children?
   a. Young infants are much quicker to recover from illness because they are young.
   b. Young infants show signs of illness differently. They can also become ill and die from an infection very quickly.
   c. Young infants very rarely get sick.

2. Which of the following is important care for a young infant?
   a. Keeping the infant loosely bundled so he can begin to move his arms and legs
   b. Keeping the umbilical cord moist so that it falls off quickly
   c. Keeping the infant warm through skin-to-skin care

3. What are the feeding recommendations for sick young infants?
   a. Exclusive, on-demand breastfeeding for at least 6 months
   b. Breastfeeding and additional sources of fluid, like water, to hydrate
   c. Soft complementary foods as soon as the child is ready

4. What are signs that a young infant is seriously ill and needs urgent referral and care?
   a. Breathing more than 60 breaths per minute
   b. Skin pustules
   c. Some jaundice, where the eyes are yellow but not the palms or soles

5. A young infant presents at your clinic, and his caregiver says the infant has been feeding well, but in the past 2 days is unable to breastfeed at all. What actions will you take?
   a. Counsel the caregiver on positioning and attachment so that the infant can breastfeed better.
   b. The infant is seriously ill if they are unable to feed. You must urgently refer.
   c. Recommend that the caregiver give other safe fluids by cup.
PART I
Assess, classify, and treat the sick young infant
2.2 INTRODUCTION TO SICK YOUNG INFANT

WHY ARE YOUNG INFANTS SPECIAL?

Young infants differ from older infants and children in the ways they show signs of infection:

- **They become ill and die very quickly from serious bacterial infections.** Severe infections are the most common serious illness during first 2 months of life.
- **Special risk for low birth weight infants:** Infants under 2.5 kilograms at birth are low weight. Infections are particularly dangerous in low birth weight infants. This means the infant had low weight at birth, due either to poor growth in the womb or to prematurity (being born early).
- **Infants often show only general signs when seriously ill,** such as difficulty in feeding, reduced movements, fever or low body temperature.
- **Newborn infants are often sick from conditions related to labour and delivery.** Newborns with any of these conditions require immediate attention. Some infants are premature, or born before 37 weeks of pregnancy. They may have trouble in breathing due to immature lungs. These conditions include birth asphyxia, birth trauma, preterm birth, and early-onset infections such as sepsis from premature ruptured membranes.

**IMPORTANT!**
Young infants can become sick and die very quickly.

WHAT ARE YOUNG INFANTS’ SPECIAL CARE REQUIREMENTS?

Young infants have important care requirements to protect them from infection during the first months of life. This care includes:

- **EXCLUSIVE, ON-DEMAND BREASTFEEDING,** which provides young infants with the nutrients and antibodies they require for healthy growth, development, and immune function
- **KEEPING INFANTS WARM,** particularly through methods like skin-to-skin contact
- **MAINTAINING GOOD HYGIENE** by washing hands every time before holding an infant, and keeping the umbilical cord area clean, which is vulnerable to infection
- **IMMUNIZING** a young infant on schedule
- **SEEKING IMMEDIATE CARE IF THERE ARE SIGNS OF SEVERE DISEASE**

As you have learned, the IMCI process (ASSESS, CLASSIFY, TREAT) is the same for young infants and children. However, as infants have some special care requirements, they are assessed for specific symptoms and signs.
**IMPORTANT CARE FOR YOUNG INFANTS**

- Exclusive breastfeeding
- Keep warm
- Keep umbilical cord clean
- Wash hands before holding
- Immunize on schedule

**SELF-ASSESSMENT EXERCISE A**

Complete this exercise, and try not to look back at the material. Remember that you can check your answers to all of the self-assessment exercises at the end of the module.

1. Are these statements true or false? If they are false, write out the correct statement.
   
a. Young infants are up to 2 months of age  TRUE FALSE
   
b. Young infants have a different section of charts because they have a separate IMCI process that is entirely different from the process for the sick child.  TRUE FALSE
   
c. Severe infections are the most serious illness in the first two months of life  TRUE FALSE
   
d. Young infants and children are very similar in how they show signs of illness.  TRUE FALSE
   
e. Sami is 2 months old. He is considered a sick young infant.  TRUE FALSE

2. You have learned that there is special care that is particularly important for young infants. Tick (✔) the measures below that are important care for infants.
   - Skin-to-skin contact (kangaroo care) to keep the infant warm
   - Give water regularly to keep infant hydrated
   - Seek care immediately if infant develops signs of serious illness
   - Change gowns before holding young infant
   - Exclusive, on-demand breastfeeding
   - Give all immunizations at birth, and never again
   - Give immunizations on schedule
   - Wash hands before handling the young infant
   - Rub the young infant with oils, lotion, or vaseline to keep skin moist
2.3 ASSESS A SICK YOUNG INFANT FOR SIGNS OF SERIOUS DISEASE

OPENING CASE – MIMI

A young caregiver, Biya, comes into your clinic on Tuesday morning with her small young infant, a little girl named Mimi. Biya is very concerned because Mimi is her first child, and is very precious to the family. Mimi was born 6 weeks ago.

Biya tells you that during the weekend she noticed Mimi was not taking the breast as often as she normally did. She got worried and wanted to take Mimi to the nearby health centre on Monday. Biya herself had an appointment scheduled for Tuesday for follow-up care on the pregnancy.

Biya’s husband and caregiver told her to wait and take Mimi on Tuesday to the schedule appointment so that they do not have to pay for the transport twice. Biya is now very worried because she thinks Mimi is getting worse with the feeding.

HOW WILL YOU GREET BIYA WHEN SHE ENTERS THE CLINIC?

Greeting the caregiver is an important first step in obtaining appropriate information about the sick infant, and why they are coming to the clinic. You will greet the caregiver and obtain the same information as you would with the sick child.

First, this greeting helps to create a welcoming environment, and build trust with caregivers. You can review communication skills in INTRODUCTION PART 2: Introduction to IMCI.

Second, it allows you to gather important information about the infant:

✓ **ASK:** what is the child’s name?

✓ **ASK:** how old is Mimi? This determines the charts to use.

✓ **ASK:** what is Mimi’s problem? Is this the first time you are coming to the clinic for this problem?

✓ **MEASURE:** Mimi’s weight and temperature, which will be used during the assessment.

Next, you will assess Mimi for signs of severe disease or local infection. You will check every sick young infant for these signs. This is similar to checking every sick child for the general danger signs, which was discussed in Module 1.
WHEN DO YOU CHECK EVERY SICK YOUNG INFANT FOR SIGNS OF SEVERE DISEASE?

The first part of your assessment is checking for signs of severe illness. Every sick young infant is checked for signs of very severe disease, especially a serious infection.

For ALL sick young infants – ask the caregiver about the infant’s problems, then

ASSESS EVERY YOUNG INFANT FOR SIGNS OF SEVERE DISEASE AND LOCAL INFECTION

NO signs present

YES, one or more signs present

Young infant requires urgent referral. Continue assessment quickly so referral is not delayed.

CONTINUE ASSESSMENT: assess for jaundice, diarrhoea, check HIV status, check feeding problems and low weight, check immunization status, and other problems

WHY DO YOU CHECK EVERY SICK YOUNG INFANT FOR SIGNS OF SEVERE DISEASE?

Young infants can become sick and die very quickly from serious bacterial infections such as pneumonia, sepsis, and meningitis. The signs of very severe disease also identify young infants who have other serious conditions like severe birth asphyxia and complications of preterm birth.

If you find a reason that a young infant needs urgent referral, you should complete the assessment quickly and refer the infant to the hospital.
HOW WILL YOU ASSESS FOR SEVERE DISEASE AND LOCAL INFECTION?

When you assess by looking for signs of severe disease, you will ask questions of the caregiver, and also make your own observations. These are detailed in your ASSESS chart.

Review your ASSESS chart for very severe disease and local bacterial infection. It includes the instructions below. It is important to assess the signs in the order on the chart. The young infant should be calm.

<table>
<thead>
<tr>
<th>ASK:</th>
<th>LOOK, LISTEN, FEEL:</th>
</tr>
</thead>
</table>
| • Is the infant having difficulty in feeding? | • Count the breaths in one minute. Repeat the count if 50 or more breaths per minute.  
• Has the infant had convulsions (fits)?  
• Look for severe chest indrawing.  
• Measure axillary temperature.  
• Look at the umbilicus. Is it red or draining pus?  
• Look for skin pustules.  
• Look at the young infant’s movements. If infant is sleeping, ask the mother to wake him/her.  
  - Does the infant move on his/her own?  
  If the infant is not moving, gently stimulate him/her.  
  - Does the infant move only when stimulated but then stops?  
  - Does the infant not move at all?  |

For the first two signs (fast breathing and severe lower chest indrawing): the young infant must be calm, and may be asleep. If the infant is awake, observe his or her movements.

To assess the next few signs, you will pick up the infant and then undress him, look at the skin all over his body and measure his temperature. If the infant was sleeping earlier, by this time he or she will probably be awake. Then you can see and observe his or her movements.

ASK: IS YOUR BABY HAVING DIFFICULTY IN FEEDING?

Any difficulty that the caregiver mentions is important. A young infant who was feeding well earlier but is not feeding well now may have a serious infection. A newborn that has not been able to feed since birth may be premature or may have complications such as birth asphyxia. These infants who are either not able to feed or are not feeding well should be referred urgently to hospital.

The caregiver may also mention difficulties such as: her infant feeds too frequently (or not frequently enough), she does not have enough milk, her nipples are sore, or she has flat or inverted nipples. You will assess these difficulties later during breastfeeding assessment.
**ASK: HAS YOUR BABY HAD CONVULSIONS [FITS]??**

Use words the caregiver understands. For example, the caregiver may know convulsions as “fits” or “spasms”.

During a convulsion, the young infant’s arms and legs may become stiff. The infant may stop breathing and become blue. Many times there may only be rhythmic movements of a part of the body, such as rhythmic twitching of the mouth or blinking of eyes. The young infant may lose consciousness.

**LOOK: DOES THE SICK INFANT HAVE FAST BREATHING?**

Count the breathing rate as you would in an older infant or young child. Young infants usually breathe faster than older infants and young children. The breathing rate of a healthy young infant is commonly more than 50 breaths per minute. Therefore, 60 breaths per minute or more is the cut-off used to identify fast breathing in a young infant.

If the first count is 60 breaths or more, repeat the count. This is important because the breathing rate of a young infant is often irregular. The young infant will occasionally stop breathing for a few seconds, followed by a period of faster breathing. If the second count is also 60 breaths or more, the young infant has fast breathing.

**Fast breathing in a sick young infant is 60 or more breaths per minute**

**LOOK: DOES THE INFANT HAVE SEVERE CHEST INDRAWING?**

The infant has chest indrawing if the lower chest wall (lower ribs) goes IN when the infant breathes IN. Chest indrawing occurs when the infant needs to make a greater effort than normal to breathe in.

In normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the infant breathes IN. When chest indrawing is present, the lower chest wall goes IN when the infant breathes IN.

**Only severe chest indrawing is a serious sign in a young infant.** Mild chest indrawing is normal in a young infant because the chest wall is soft. Severe chest indrawing is very deep and easy to see, and is a sign of pneumonia.

For chest indrawing to be present, it must be visible and present all the time you are observing the infant.
MEASURE TEMPERATURE OR FEEL THE INFANT: FEVER OR LOW BODY TEMPERATURE?

The thresholds for fever in the YOUNG INFANT chart are based on axillary temperature. Axillary temperature is measured in the armpits. The thresholds for rectal temperature are approximately 0.5 °C higher. If you do not have a thermometer, feel the infant’s abdomen or armpit and determine if it feels hot or unusually cool.

**Fever is defined as 37.5 °C or above (axillary).** Fever is uncommon in the first two months of life. If a young infant has fever, this may mean the infant has very severe disease. Fever may be the only sign of a serious bacterial infection.

**Low body temperature is below 35.5 °C (axillary).** Young infants can also respond to infection by dropping their body temperature. This is called hypothermia.

LOOK AT THE UMBILICUS: IS IT RED OR DRAINING PUS?

The umbilical cord usually separates one to two weeks after birth. The wound heals within 15 days. Redness of the end of the umbilicus, or pus draining from the umbilicus, is a sign of umbilical infection. Recognizing and treating an infected umbilicus early are essential to prevent sepsis.

LOOK FOR SKIN PUSTULES

Skin pustules are red spots or blisters that contain pus. Examine the skin on the entire body. If you see pustules, is it just a few pustules or are there many? A severe pustule is large or has redness extending beyond the pustule. Many or severe pustules indicate a serious infection.

LOOK AT THE YOUNG INFANT’S MOVEMENTS

Young infants often sleep most of the time, and this is not a sign of illness. Observe the infant’s movements while you do the assessment. If a young infant does not wake up during the assessment, ask the caregiver to wake him. An awake young infant will normally move his arms or legs or turn his head several times in a minute if you watch him closely.

If the infant is awake but has no spontaneous movements, gently stimulate the young infant. If the infant moves only when stimulated and then stops moving, or does not move at all, it is a sign of severe disease. An infant who cannot be woken up even after stimulation should also be considered to have this sign.
**Watch “Demonstration: assessment of sign young infant” (disc 2)**
This reviews all steps in assessing for serious disease or possible bacterial infection.

**SELF-ASSESSMENT EXERCISE B**

*Answer the questions below about assessing for signs of serious illness. Remember that an answer key for all self-assessment exercises is at the end of this module.*

1. How many breaths per minute is fast breathing in an infant?

2. How do you decide if an infant has fast breathing?

3. How will you measure temperature in a young infant?

4. What temperature is a fever in a young infant?

5. What temperature is considered low body temperature?

6. Which of the following statements about signs of severe disease or bacterial infection are true? Which are false? Circle your answer. If false, write the correct statement.
   
   a. Chest indrawing is identified when an infant is breathing OUT.  **TRUE**  **FALSE**
   
   b. A healthy umbilicus is often red, and sometimes drains pus.  **TRUE**  **FALSE**
   
   c. Any difficulty with feeding in an important issue for young infants.  **TRUE**  **FALSE**
   
   d. Only severe chest indrawing is a serious sign in infants, as mild chest indrawing is normal in young infants.  **TRUE**  **FALSE**
How do you assess Mimi?

Mimi weighs 3.1 kg, and when you ask, Biya tells you her birth weight was 3.5 kg. Mimi’s axillary temperature is 34.7 degrees Celsius.

Biya tries several times to put Mimi on the breast but Mimi did not attach at all. Biya says that she has had no convulsions. You count 45 breaths per minute, and because Mimi did not exceed 60 breaths per minute, you do not need to repeat the count.

You observe Mimi’s breathing, her lower chest wall moves in quite severely when Mimi breathes in. She does not have skin pustules. The umbilicus is not red or draining pus. When you move Mimi’s arm to stimulate her movements, Mimi drops the arm when you release it.

Does Mimi have any signs of serious illness?

You recognize four serious signs in Mimi.

1. First, she is having difficulty breastfeeding.
2. Second, she has a low body temperature. Her temperature of 34.7 degrees is less than 35.5 degrees Celsius.
3. Third, you observe severe chest indrawing.
4. Fourth, you see that her movements are reduced.

How will you fill in Mimi’s recording form?

You have recorded these signs on your form. You will learn now about classifying these signs and identifying treatment.
HOW WILL YOU CLASSIFY SIGNS OF SERIOUS ILLNESS IN A SICK YOUNG INFANT?

Open you classification table for severe disease or local bacterial infection. You will observe that there are three classifications for the signs of serious disease or local infection:

1. VERY SEVERE DISEASE
2. LOCAL BACTERIAL INFECTION
3. SEVERE DISEASE OR LOCAL INFECTION UNLIKELY

<table>
<thead>
<tr>
<th>Any one of the following signs</th>
<th>Pink: VERY SEVERE DISEASE</th>
<th>Yellow: LOCAL BACTERIAL INFECTION</th>
<th>Green: SEVERE DISEASE OR LOCAL INFECTION UNLIKELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not feeding well or</td>
<td>■ Give first dose of intramuscular antibiotics</td>
<td>■ Give an appropriate oral antibiotic</td>
<td>■ Advise mother to give home care.</td>
</tr>
<tr>
<td>• Convulsions or</td>
<td>■ Treat to prevent low blood sugar</td>
<td>■ Teach the mother to treat local infections at home</td>
<td></td>
</tr>
<tr>
<td>• Fast breathing (60 breaths per minute or more) or</td>
<td>■ Refer URGENTLY to hospital **</td>
<td>■ Advise mother to give home care for the young infant</td>
<td></td>
</tr>
<tr>
<td>• Severe chest indrawing or</td>
<td>■ Advise mother how to keep the infant warm on the way to the hospital</td>
<td>■ Follow up in 2 days</td>
<td></td>
</tr>
<tr>
<td>• Fever (37.5°C* or above) or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Low body temperature (less than 35.5°C*) or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Movement only when stimulated or no movement at all.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Umbilicus red or draining pus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Skin pustules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• None of the signs of very severe disease or local bacterial infection</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now you will read more about the three classifications and the treatments identified for each.

What happens if you see signs from multiple classifications?

When you find signs from different boxes, you always classify with the more severe classification.

For example:

You assess signs from RED and YELLOW ➞ classify RED
You assess signs from YELLOW and GREEN ➞ classify YELLOW

REMEMBER! Colour-coded classifications tell where care to be given.

RED = refer urgently
YELLOW = treat in clinic
GREEN = home treatment
VERY SEVERE DISEASE (RED)

Remember that the presence of only one sign is enough to classify as very severe disease. A young infant with severe signs may have a serious disease and be at high risk of death. A young infant with any sign of very severe disease needs urgent referral to hospital. Before referral, give a first dose of intramuscular antibiotics.

The infant may have complications of preterm birth (very low birth weight or birth asphyxia), or may have a serious infection. The serious infection may be pneumonia, sepsis or meningitis. It is difficult to distinguish between these conditions in a young infant. Fortunately, it is not necessary to make this distinction in order to make initial management decisions.

What are your actions?
Treat to prevent low blood sugar by giving breast milk or sugar water if it is not possible to give breast milk. If the young infant is not able to feed, give breast milk by nasogastric tube. Malaria is unusual in infants of this age, so no treatment is required for possible severe malaria.

Advising the caregiver to keep her sick young infant warm is very important. Young infants have difficulty maintaining their body temperature. Low temperature alone can kill young infants.

LOCAL BACTERIAL INFECTION (YELLOW)

Young infants with this classification typically have an infected umbilicus or a skin infection.

What are your actions?
Treatment includes giving an appropriate oral antibiotic at home for 5 days. The caregiver will treat the local infection at home and give home care. She should return for follow-up in 2 days to be sure the infection is improving. Bacterial infections can progress rapidly in young infants.

SEVERE DISEASE OR LOCAL INFECTION UNLIKELY (GREEN)

Young infants with this classification have none of the signs of very severe disease and local bacterial infection.

What are your actions?
Advise the caregiver to give homecare to the young infant.
How will you classify Mimi?

You identified four serious signs when you assessed Mimi: difficulty feeding, low body temperature, severe chest indrawing, and reduced movements.

**Mimi shows at least one sign of serious disease.** You will classify her as having very severe disease, the red classification that requires urgent referral.

Any one of the following signs
- Not feeding well or
- Convulsions or
- Fast breathing (60 breaths per minute or more) or
- Severe chest indrawing or
- Fever (37.5°C* or above) or
- Low body temperature (less than 35.5°C*) or
- Movement only when stimulated or no movement at all.

Yellow: LOCAL BACTERIAL INFECTION
- Umbilicus red or draining pus
- Skin pustules

Any one of the following signs
- Umbilicus red or draining pus
- Skin pustules

Green: SEVERE DISEASE OR LOCAL INFECTION UNLIKELY
- None of the signs of very severe disease or local bacterial infection

**Pink:** VERY SEVERE DISEASE
- Give first dose of intramuscular antibiotics
- Give an appropriate oral antibiotic
- Advise mother how to keep the infant warm on the way to the hospital

You will record this classification on her recording form:

<table>
<thead>
<tr>
<th>Name: Mimi</th>
<th>Age: 6 weeks</th>
<th>Not breastfeeding well</th>
<th>Initial Visit?</th>
<th>Temperature (°C): 34.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg): 3.1</td>
<td>Temperature (°C): 34.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**
- Is the infant having difficulty in feeding?
- Has the infant had convulsions?

**Yellow:** LOCAL BACTERIAL INFECTION
- Count the breaths in one minute 45 breaths per minute
- Look for severe chest indrawing.
- Look and listen for grunting.
- Look at the umbilicus. Is it red or draining pus?
- Fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)
- Look for skin pustules. Are there many or severe pustules?
- Movement only when stimulated or no movement even when stimulated.

**Green:** SEVERE DISEASE OR LOCAL INFECTION UNLIKELY
- Advise mother to give home care.

**Pink:** VERY SEVERE DISEASE
- Give first dose of intramuscular antibiotics
- Treat to prevent low blood sugar
- Refer URGENTLY to hospital **
- Advise mother how to keep the infant warm on the way to the hospital

**Mimi has a severe classification: what do you do next?**

You learned earlier that if you find a reason that a young infant needs urgent referral, you should complete the assessment quickly and refer the infant to the hospital.

You will continue to assess and classify Mimi for jaundice, diarrhoea, HIV status, feeding problem or low weight, and immunization status. However, you can postpone the breastfeeding assessment, as it takes some time. You can always continue this process after the infant’s most immediate problems have been resolved.
2.4 ASSESS & CLASSIFY JAUNDICE

Now that you have checked all young infants for signs of severe disease, you will continue your assessment. **You will now assess for main symptoms. The first is jaundice.**

For ALL sick young infants – ask the caregiver about the infant’s problems, check for signs of serious disease or local infection, then:

**LOOK: IS THE INFANT JAUNDICED?**

- **NO**
- **YES**

Classify the jaundice using the colour-coded classification table for jaundice

**CONTINUE ASSESSMENT:** assess for diarrhoea, check HIV status, check feeding problems and low weight, check immunization status, and other problems

**WHAT IS JAUNDICE?**

Jaundice is a yellow discoloration of skin in young infants.

Many normal babies may have jaundice during the first week of life. This is common for small babies less than 2.5 kg at birth or born before 37 weeks gestation. This jaundice usually appears on the third or fourth day of life and occurs because the infant’s liver is not fully mature to eliminate the bilirubin formed in the body. This type of jaundice is mild and disappears before the age of two weeks in full term and by the age of three weeks in preterm babies. It does not need any treatment.

However, some signs indicate severe jaundice that requires urgent care.

**WHEN IS JAUNDICE NOT NORMAL, BUT SIGN OF A SEVERE PROBLEM?**

Jaundice that appears on the first day of life is always due to an underlying disease. Deep jaundice that extends to the palms and soles can be severe and requires urgent treatment.

Jaundice that persists beyond the age of two weeks needs further investigation. If not treated, it may damage the young infant’s brain.

**Jaundice needs special attention when it:**

- Appears within 24 hours of birth
- Remains beyond 2 weeks of age
HOW WILL YOU ASSESS FOR JAUNDICE IN A SICK YOUNG INFANT?

When you assess for jaundice, you observe the child for yellow discoloration in the skin.

Open to your ASSESS chart for jaundice. It contains these instructions for ASSESS that you will now read about below:

<table>
<thead>
<tr>
<th>If jaundice present, ASK:</th>
<th>LOOK AND FEEL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• When did the jaundice appear first?</td>
<td>• Look for jaundice (yellow eyes or skin)</td>
</tr>
<tr>
<td></td>
<td>• Look at the young infant’s palms and soles. Are they yellow?</td>
</tr>
</tbody>
</table>

LOOK: FOR YELLOW SKIN

It is important to look for jaundice in natural light. To look for jaundice, press the infant’s skin over the forehead with your fingers to blanch. Remove your fingers and look for yellow discoloration. If there is yellow discoloration, the infant has jaundice.

LOOK: AT THE INFANT’S PALMS AND SOLES OF THE FEET

To assess for severity of disease, repeat the above process on the hands and soles of the infant’s feet. Press the infant’s skin on palms and soles with your fingers. Remove your fingers and look for yellow discoloration. As before, yellow discoloration is your indication that the infant has jaundice.

ASK: WHEN DID JAUNDICE APPEAR?

Remember that the timing of the jaundice, and the infant’s age, is very important for this assessment.

**Jaundice that appears on the first day of life is always due to an underlying disease.** Deep jaundice that extends to the palms and soles can be severe and requires urgent treatment.

**Jaundice that persists beyond the age of two weeks needs further investigation.** If not treated, it may damage the young infant’s brain.
HOW WILL YOU CLASSIFY JAUNDICE IN A SICK YOUNG INFANT?

Review your jaundice classification table in your Chart Booklet. What do you observe about the classifications and treatments? There are three classifications for jaundice:

1. **SEVERE JAUNDICE**
2. **JAUNDICE**
3. **NO JAUNDICE**

### Severe Jaundice (Red)

A young infant who is less than 24 hours of age and has jaundice should be classified as **SEVERE JAUNDICE**. Any young infant who has yellow palms and soles is also classified as having SEVERE jaundice.

**What are your actions?**

Before referral, the infant will require treatment for low blood sugar, and the caregiver will be advised on keeping the infant warm.

### Jaundice (Yellow)

Young infants with jaundice over 24 hours old and without yellow palms and soles should be classified as having **JAUNDICE**. **If an infant with JAUNDICE is older than 14 days, refer to a hospital for assessment.**

**What are your actions?**

At the end of the assessment you will advise the caregiver on home care and when to return immediately.

### No Jaundice (Green)

A young infant who has no jaundice gets the classification **NO JAUNDICE**.

**What are your actions?**

You will advise the caregiver on home care at the end of your assessment.
1. Are these statements true or false? If false, write the statement out correctly.
   a. Jaundice is a yellow discolouration of the skin. TRUE   FALSE
   b. Yellow soles and palms are normal in young infants. TRUE   FALSE
   c. Many babies may have jaundice in the first week of life, especially if they are low birth weight or premature. TRUE   FALSE
   d. Jaundice in a young infant less than 24 hours old is very serious. TRUE   FALSE
   e. To assess for jaundice of the skin, soles, or palms, blanch the skin and look for discolouration. TRUE   FALSE
   f. It is best to look for jaundice indoors under a lamp TRUE   FALSE
   g. Jaundice that persists beyond 2 weeks requires further investigation. TRUE   FALSE

2. Match the signs below with the correct classification. Each “signs” box should be matched with a classification.

   **SIGNS**                                **CLASSIFICATION**
   a. Precious is 14 days old. Her skin is not discoloured. Her palms and soles are normal.   SEVERE JAUNDICE
   b. Kai was born last night, less than 24 hours ago. His skin is very yellow.   JAUNDICE
   c. Sal is 2 weeks old. She has yellow discolouration of the skin and eyes. Her palms and soles are not yellow. NO JAUNDICE

3. Biki is 21 days old. He has yellow skin, but his palms and soles are not yellow. How would you classify Biki? What action would you take for Biki?
How did you assess and classify Mimi for jaundice?

When you press Mimi’s skin in the natural light, you see that it is yellow. When you examine her palms and soles, and compare the colour to her caregiver, you see they are also yellow. You ask Biva when this yellow colouring appeared. She says she did not really notice it, so she is not sure.

Mimi shows a sign of SEVERE JAUNDICE, because her yellow palms and soles. This is a red classification, and will need to be referred urgently.

| ● Any jaundice if age less than 24 hours or | Pink: SEVERE JAUNDICE | ● Treat to prevent low blood sugar | ● Refer URGENTLY to hospital | ● Advise mother how to keep the infant warm on the way to the hospital |
| ● Yellow palms and soles at any age | | | | |
| ● Jaundice appearing after 24 hours of age and | Yellow: JAUNDICE | ● Advise the mother to give home care for the young infant | | |
| ● Palms and soles not yellow | | ● Advise mother to return immediately if palms and soles appear yellow. | | |
| ● No jaundice | Green: NO JAUNDICE | | ● If the young infant is older than 14 days, refer to a hospital for assessment | |
| | | | Follow-up in 1 day | |

How will you assess and classify Mimi on your recording form?

| Name: Mimi | Age: 6 weeks | Weight (kg): 3.1 | Temperature (°C): 34.7 | Initial Visit? | Follow-up Visit? |
| Not breastfeeding well | | | | X | |

**CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**
- Is the infant having difficulty in feeding?
- Has the infant had convulsions?
- Count the breaths in one minute. 45 breaths per minute
- Repeat if elevated? Fast breathing?
- Look for fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)
- Look for skin pustules. Are there many or severe pustules?
- Movement only when stimulated or no movement even when stimulated?
- Look for sunken eyes.
- Look at the umbilicus. Is it red or draining pus?
- Look and listen for grunting.
- Look for sever chest indrawing.
- Is the infant restless and irritable?
- Movement only when stimulated? ___ breaths per minute
- Determine weight for age. Low ___ Not low ___
- Look at the young infant’s general condition. Does the infant:
  - movements first? or slowly?
  - Skin pinch goes back:
  - Sunken eyes
  - Does the infant not move even when stimulated but ___
  - Movement only when stimulated? ___

**THEN CHECK FOR JAUNDICE**
- When did the jaundice appear first? Not known
- Look for jaundice (yellow eyes or skin)
- Look at the young infant’s palms and soles. Are they yellow?

This is a severe classification – what actions will you take?

You have identified two RED classifications for Mimi: one for signs of severe disease and one for jaundice. You know that you should continue the assessment quickly before you refer.

You will make note of the identified pre-referral treatments for severe jaundice: Before you refer Mimi, you will need to treat her for low blood sugar, and advise Biya on how to keep Mimi warm on the way to the hospital with extra blankets or skin-to-skin contact.

Now you will move to the next main symptom, diarrhoea.
2.5 ASSESS & CLASSIFY DIARRHOEA IN YOUNG INFANT

YOU WILL LEARN ABOUT DIARRHOEA IN MODULE 4

You will learn about assessing and classifying for diarrhoea in Module 4. The assessment process is similar with the sick child. You can review this material now to be familiar with signs when you practice assessing a sick young infant in your clinic.

DVD EXERCISE – ASSESSING & CLASSIFYING GEMMA

Watch “Case study – Gemma” on DVD disc 2 to assess and classify Gemma for signs of severe disease and local infection, and diarrhoea.

As you watch the video, use the recording form below to assess and classify. The video will review the classifications with you.

MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Weight (kg):</th>
<th>Temperature (°C):</th>
<th>Initial Visit?</th>
<th>Follow-up Visit?</th>
</tr>
</thead>
</table>

**CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**

- Is the infant having difficulty in feeding?
- Has the infant had convulsions?
- Count the breaths in one minute. ___ breaths per minute
  - Repeat if elevated: ___ Fast breathing?
- Look for sever chest indrawing.
- Look and listen for grunting.
- Look at the umbilicus. Is it red or draining pus?
- Fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)
- Look for skin pustules. Are there many or severe pustules?
- Movement only when stimulated or no movement even when stimulated?

**THEN CHECK FOR JAUNDICE**

- When did the jaundice appear first?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant’s palms and soles. Are they yellow?

**DOES THE YOUNG INFANT HAVE DIARRHOEA?**

- Look at the young infant’s general condition. Does the infant:
  - move only when stimulated?
  - not move even when stimulated?
  - is the infant restless and irritable?
  - Look for sunken eyes.
  - Pinch the skin of the abdomen. Does it go back:
    - Very slowly?
    - Slowly?

Then check for HIV infection

- Note mother’s and/or child’s HIV status:
  - Mother’s HIV test:          NEGATIVE     POSITIVE     NOT DONE/KNOWN
  - Child’s virological test:   NEGATIVE     POSITIVE     NOT DONE
  - Child’s serological test:  NEGATIVE      POSITIVE     NOT DONE

If mother is HIV positive and no positive virological test in young infant:

- Is the infant breastfeeding now?
- Was the infant breastfeeding at the time of test or 6 weeks before it?
- If breastfeeding: Is the mother and infant on ARV prophylaxis?

**ASSESS BREASTFEEDING**

- Has the infant breastfed in the previous hour? If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
- Is the infant able to attach? To check attachment, look for:
  - Chin touching breast: Yes ___  No ___
  - Mouth wide open: Yes ___ No ___
  - Lower lip turned outward: Yes ___ No ___
  - More areola above than below the mouth: Yes ___ No ___

- Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?
- Not sucking

**CHECK THE CHILD’S IMMUNIZATION STATUS (Circle immunizations needed today)**

- Return for next immunization on: ____________________ (Date)

- BCG
- OPV-0
- DPT+HIB-1
- OPV-1
- DPT+HIB-2
- OPV-2
- Hep B 1
- Hep B 2
- 200,000 I.U vitamin A to mother

**ASSESS OTHER PROBLEMS:**

- Ask about mother’s own health

---

27
SELF-ASSESSMENT EXERCISE D

Complete the two case studies below. Read the case information, and complete the recording form as you greet, ask information, assess, and classify.

1. HENRI. Henri was born 6 hours ago at home. His weight is 3.0 kg. His axillary temperature is 36.5 °C. He is brought to the health facility because he did not cry immediately after birth and is having difficult breathing. The health worker first checks the young infant for signs of VERY SEVERE DISEASE and LOCAL BACTERIAL INFECTION. The father says that the young infant has not had convulsions and has not yet been fed. The health worker counts 74 breaths per minute. He repeats the count. The second count is 70 breaths per minute. He finds that the young infant has severe chest indrawing. The young infant moves only when he is stimulated. The umbilicus is normal, and there are no skin pustules. There is no jaundice. Henri does not have diarrhoea.

MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Weight (kg):</th>
<th>Temperature (°C):</th>
<th>Initial Visit?</th>
<th>Follow-up Visit?</th>
</tr>
</thead>
</table>

**CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**
- Is the infant having difficulty in feeding?
- Has the infant had convulsions?
- Count the breaths in one minute. ___ breaths per minute
  - Repeat if elevated: ___ Fast breathing?
  - Look for severe chest indrawing.
  - Look and listen for grunting.
  - Look at the umbilicus. Is it red or draining pus?
  - Fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)
  - Look for skin pustules. Are there many or severe pustules?
  - Movement only when stimulated or no movement even when stimulated?

**THEN CHECK FOR JAUNDICE**
- When did the jaundice appear first?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant’s palms and soles. Are they yellow?

**DOES THE YOUNG INFANT HAVE DIARRHOEA?**
- Look at the young infant’s general condition. Does the infant:
  - c. move only when stimulated?
  - c. not move even when stimulated?
  - Is the infant restless and irritable?
  - Look for sunken eyes.
  - Pinch the skin of the abdomen. Does it go back:
    - c. Very slowly?
    - c. Slowly?

---

**ASK** (Circle all signs present)

**CLASSIFY**

---

Yes ___ No ___
2. **SASHI.** Sashi is 1 week old. Her weight is 3.4 kg. Her axillary temperature is 37 °C. Her caregiver brought her to the clinic because she has a rash. The health worker assesses for signs of very severe disease and local bacterial infection. Sashi’s caregiver says that there were no convulsions and that the infant is feeding well. Sashi’s breathing rate is 55 per minute. She has no chest indrawing. Her umbilicus is normal. The health worker examines her entire body and finds a red rash with a few skin pustules on her buttocks. She is awake and has spontaneous movements. She has neither jaundice nor diarrhoea.

**MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Weight (kg):</th>
<th>Temperature (°C):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask: What are the infant’s problems?:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ASSESS</strong> (Circle all signs present)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLASSIFY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the infant having difficulty in feeding?</td>
<td>Count the breaths in one minute. ___ breaths per minute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the infant had convulsions?</td>
<td>Repeat if elevated: ___ Fast breathing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look for chest indrawing.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look and listen for grunting.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Look at the umbilicus. Is it red or draining pus?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look for skin pustules. Are there many or severe pustules?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Movement only when stimulated or no movement even when stimulated?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>THEN CHECK FOR JAUNDICE</strong></td>
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<td>When did the jaundice appear first?</td>
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<td>Is the infant restless and irritable?</td>
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<td></td>
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<tr>
<td>Look for sunken eyes.</td>
<td></td>
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<tr>
<td>Pinch the skin of the abdomen. Does it go back:</td>
<td></td>
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</tr>
<tr>
<td>o Very slowly?</td>
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<td></td>
</tr>
<tr>
<td>o Slowly?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Yes ___ No ___</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**CHECK THE CHILD’S IMMUNIZATION STATUS (Circle immunizations needed today)**

- BCG
- OPV-0
- DPT+HIB-1
- OPV-1
- DPT+HIB-2
- OPV-2
- Hep B 1
- Hep B 2
- I.U
- vitamin A to mother

**ASSESS OTHER PROBLEMS:**

Ask about mother's own health

**RETURN FOR NEXT IMMUNIZATION ON:**

________________

(Date)
2.6 TREAT THE YOUNG INFANT REQUIRING URGENT REFERRAL

HOW DO YOU KNOW WHEN A YOUNG INFANT REQUIRES URGENT REFERRAL?

A young infant with any severe classification (RED) needs to be urgently referred.

IMCI FOR THE SICK YOUNG INFANT (up to 2 months of age)

GREET THE CAREGIVER
ASK: child’s age (this chart is for sick young infant)
ASK: what are the infant’s problems?
ASK: initial or follow-up visit for problems?
MEASURE: weight and temperature

ASSESS FOR GENERAL DANGER SIGNS for very severe disease

Even if present

ASSESS MAIN SYMPTOMS
• Jaundice
• Diarrhoea
• HIV status or mother’s HIV status
• Feeding problem and growth
• Check immunizations
• Assess other problems and mother’s health

CLASSIFY

URGENT REFERRAL (RED)
• IDENTIFY pre-referral treatment
• URGENTLY REFER

URGENT REFERRAL REQUIRED

TREAT IN CLINIC (YELLOW)
• IDENTIFY treatment
• TREAT
• COUNSEL caretaker
• FOLLOW-UP CARE

REFERRAL NOT REQUIRED

TREAT AT HOME (GREEN)
• IDENTIFY treatment
• COUNSEL caretaker on home treatment
• FOLLOW-UP CARE

REFERRAL NOT REQUIRED

WHAT CLASSIFICATIONS REQUIRE URGENT REFERRAL OF A YOUNG INFANT?

If the infant has any of the following classifications (RED) they require urgent referral:

• VERY SEVERE DISEASE
• SEVERE JAUNDICE
• SEVERE DEHYDRATION in some cases: the infant with SEVERE DEHYDRATION needs rehydration with IV fluids. If you can give IV therapy, you can treat in clinic and do not need to refer. If you cannot give IV therapy
you must refer urgently. If the infant has SEVERE DEHYDRATION and another severe classification, they must be referred.

**WHAT DOES THE YOUNG INFANT REQUIRE BEFORE REFERRAL?**

Before urgently referring a young infant to hospital, give all appropriate pre-referral treatments. Urgent pre-referral treatments are in **bold print** on the chart.

Some treatments should not be given before referral because they are not urgently needed and would delay referral. For example, do not teach a caregiver how to treat a local infection before referral. Do not give immunizations before referral.

**HOW DO YOU GIVE PRE-REFERRAL TREATMENTS?**

The TREAT THE YOUNG INFANT charts in your Chart Booklet include instructions on how to give the following pre-referral treatments:

✔ **VERY SEVERE DISEASE:** Give first dose of intramuscular antibiotics, treat to prevent low blood sugar, and teach caregiver how to keep child warm

✔ **SEVERE JAUNDICE:** give all pre-referral treatments as for VERY SEVERE DISEASE except the first dose of intramuscular antibiotics

✔ Give an appropriate oral antibiotic. If the infant needs an oral antibiotic for LOCAL BACTERIAL INFECTION and has not received intramuscular antibiotics, give a first dose of oral antibiotic before referral.

✔ **SEVERE DEHYDRATION** and **VERY SEVERE DISEASE**: teach caregiver to give frequent sips of ORS on the way, and advise caregiver to continue breastfeeding.

Now you will read more about these pre-referral treatments.

**How will you treat to prevent low blood sugar?**

Your treatment and instructions to the caregiver will depend if the infant is able to feed and swallow. If the infant is:

1. **ABLE TO BREASTFEED**, ask caregiver to breastfeed
2. **UNABLE TO BREASTFEED, BUT ABLE TO SWALLOW**
   ✔ Give 20–50 ml (10 ml/kg) expressed breast milk before departure
   ✔ If not possible, give 20–50 ml (10 ml/kg) sugar water (**to make, dissolve 4 level teaspoons of sugar, or 20 grams, in a 200 ml cup of clean water**)
3. **UNABLE TO SWALLOW**, give 20–50 ml (10 ml/kg) of expressed breast milk or sugar water by nasogastric tube

**REVIEW: TREAT TO PREVENT LOW BLOOD SUGAR**

✔ **Can breastfeed**: ask caregiver to breastfeed

✔ **Can’t breastfeed, but can swallow**: give expressed breast milk or sugar water

✔ **Can’t swallow**: give expressed breast milk or sugar water by nasogastric tube
How will you give the first dose of intramuscular antibiotics?

Young infants get two intramuscular antibiotics:

1. Gentamicin and
2. Ampicillin

WHY ARE TWO INTRAMUSCULAR ANTIBIOTICS GIVEN?

Young infants with VERY SEVERE DISEASE are often infected with a broader range of bacteria than older infants. The combination of Gentamicin and Ampicillin is effective against this broader range of bacteria. Use the table in your Chart Booklet to find dose instructions.

HOW DO YOU USE GENTAMICIN?

Read the vial of Gentamicin to determine its strength. Check whether it should be used undiluted or should be diluted with sterile water. When ready to use, the strength should be 10 mg/ml. Choose the dose from the row of the table that is closest to the infant’s age and weight.

HOW DO YOU USE AMPICILLIN?

To use a vial of 250 mg Ampicillin, add 1.3 ml sterile water. This will give 250 mg per 1.5 ml solution. Choose the dose from the row of the table that is closest to the infant’s weight.

If you have a vial with a different amount of Gentamicin or Ampicillin, or if you use a different amount of sterile water than described here, the dosing table on the YOUNG INFANT chart will not be correct. In that situation, carefully follow the manufacturer’s directions for adding sterile water and recalculate the doses.

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>AMPICIL LIN</th>
<th>GENTAMICIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dose: 50 mg per kg To a vial of 250 mg</td>
<td>Undiluted 2 ml vial containing 20 mg = 2 ml at 10 mg/ml OR Add 6 sterile water to 2 ml vial containing 80 mg* = 8 ml at 10 mg/ml</td>
</tr>
<tr>
<td></td>
<td>Add 1.3 ml sterile water = 250 mg/1.5ml</td>
<td>AGE &lt;7 days Dose: 5 mg per kg</td>
</tr>
<tr>
<td>1&lt;1.5 kg</td>
<td>0.4 ml 0.6 ml*</td>
<td>0.9 ml*</td>
</tr>
<tr>
<td>1.5&lt;2 kg</td>
<td>0.5 ml 0.9 ml*</td>
<td>1.3 ml*</td>
</tr>
<tr>
<td>2&lt;2.5 kg</td>
<td>0.7 ml 1.1 ml*</td>
<td>1.7 ml*</td>
</tr>
<tr>
<td>2.5&lt;3 kg</td>
<td>0.8 ml 1.4 ml*</td>
<td>2.0 ml*</td>
</tr>
<tr>
<td>3&lt;3.5 kg</td>
<td>1.0 ml 1.6 ml*</td>
<td>2.4 ml*</td>
</tr>
<tr>
<td>3.5&lt;4 kg</td>
<td>1.1 ml 1.9 ml*</td>
<td>2.8 ml*</td>
</tr>
<tr>
<td>4&lt;4.5 kg</td>
<td>1.3 ml 2.1 ml*</td>
<td>3.2 ml*</td>
</tr>
</tbody>
</table>

* Avoid using undiluted 40 mg/ml gentamicin.

What if the caregiver is not going to take the infant to the hospital?

If an infant with VERY SEVERE DISEASE cannot go to a hospital, it is possible to continue treatment using these intramuscular antibiotics.
How will you keep an infant warm?

Keeping an infant warm is **very important care during travel to the hospital**. Advise the caregiver to provide skin to skin contact, or keep the infant covered as much as possible at all times. Dress with extra clothing – hat, gloves, socks – and wrap in a soft dry cloth and cover with a blanket.

**KEEP INFANT WARM ON WAY TO HOSPITAL**

✔ Skin to skin contact
✔ Extra clothing or wrapping

Then you refer the young infant:

There are some steps to follow as you prepare to refer. You can also refer to MODULE 1.

1. **REFERRAL NOTE**
   Prepare a referral note and explain to the caregiver the reason you are referring the infant.

2. **TEACH ABOUT CARE**
   Teach her anything she needs to do on the way, such as keeping the young infant warm, breastfeeding, and giving sips of ORS.

3. **EXPLAIN IMPORTANCE, ESPECIALLY FOR YOUNG INFANTS**
   In addition, explain that young infants are particularly vulnerable. When they are seriously ill, they need hospital care and need to receive it promptly. Many cultures have reasons NOT to take a young infant to hospital. If this is the case, you will have to address these reasons and explain that the infant’s illness can best be treated at the hospital.

What if the caregiver is not going to take the infant to the hospital?

If the caregiver is not going to take the infant to hospital, follow the guidelines: **where referral is not possible**, located in the Annex.
How will you treat and refer Mimi?

As you classified Mimi, you identified immediate pre-referral treatment for Mimi. These were the bold treatments in the classification charts:

1. **Give first dose of intramuscular antibiotics** → for SEVERE DISEASE classification
2. **Treat to prevent low blood sugar** → for SEVERE DISEASE and SEVERE JAUNDICE classifications
3. **Advise caregiver to keep infant warm on way to hospital** → for SEVERE DISEASE and SEVERE JAUNDICE classifications

How will prepare Mimi’s intramuscular antibiotic?

Mimi weighs 3.1 kg. You use the chart in your Chart Booklet to determine the appropriate antibiotic dosages for the given formulations:

- ✔ Ampicillin: 1.0 ml
- ✔ Gentamicin: 2.4 ml

Next, how will you treat Mimi to prevent low blood sugar?

You use the instructions in your Chart Booklet to decide on this treatment. Mimi cannot breastfeed, but she can swallow.

You ask Biya to express breast milk into a cup, and measure just over 30 ml to give Mimi. You should give 10 ml per kg, and Mimi weighs 3.1 kg. If Biya needed help on learning how to express breast milk, you have instructions for this counselling in the next sections.

If Biya was unable to express breast milk, the other way you could treat Mimi’s low blood sugar is by giving the same amount (31 ml) of sugar water.

Next, how will you prepare Mimi to keep Biya warm?

You also teach Biya how to keep Mimi warm on the way to the hospital. You ask Biya to put Mimi’s hat and socks on, and you show her how to rewrap the blanket to keep Mimi covered.

Finally, how will you prepare Mimi for referral?

Finally, you prepare a referral note for Biya. You explain to Biya that Mimi needs to go to the hospital urgently to receive treatment for her severe signs, and so that she can begin feeding again.

You ask Biya if her husband and caregiver will let her go to the hospital. She is worried that they will be upset about the transportation costs. However because Mimi stopped feeding today and is looking so serious, she thinks they will support her.
2.7 TREAT THE YOUNG INFANT NOT REQUIRING URGENT REFERRAL

WHAT YOUNG INFANTS DO NOT REQUIRE REFERRAL?

Yellow and green colour-coded classifications do not require referral. They can be treated in the clinic or home. In the sick young infant section of the chart booklet, the TREAT charts give instructions about treatment.

IMCI FOR THE SICK YOUNG INFANT (up to 2 months of age)

GREET THE CAREGIVER

ASK: child’s age (this chart is for sick young infant)
ASK: what are the infant’s problems?
ASK: initial or follow-up visit for problems?
MEASURE: weight and temperature

ASSESS FOR GENERAL DANGER SIGNS for very severe disease

Even if present

ASSESS MAIN SYMPTOMS

• Jaundice
• Diarrhoea
• HIV status or mother’s HIV status
• Feeding problem and growth
• Check immunizations
• Assess other problems and mother’s health

CLASSIFY

URGENT REFERRAL (RED)

• IDENTIFY pre-referral treatment
• URGENTLY REFER

TREAT IN CLINIC (YELLOW)

• IDENTIFY TREATMENT
• TREAT
• COUNSEL caretaker
• FOLLOW-UP CARE

TREAT AT HOME (GREEN)

• IDENTIFY TREATMENT
• COUNSEL caretaker on home treatment
• FOLLOW-UP CARE

Even if present

All danger signs require urgent referral

IMCI FOR THE SICK YOUNG INFANT (up to 2 months of age)
HOW WILL YOU DETERMINE REQUIRED TREATMENTS?
As you ASSESS and CLASSIFY, you will:

1. **Record identified treatments** for each classification, using your use recording form
2. After you complete the assessment, determine the **integrated treatment**
3. Provide necessary **treatments in the clinic, as necessary**
4. Advise the caregiver on **home treatment**, and when to return to the clinic

WHAT IS INCLUDED IN THESE TREATMENTS?
You will learn more about the following treatments in this section:

- ✔ Oral antibiotics
- ✔ Treating local infections
- ✔ Treating dehydration and diarrhoea
- ✔ Managing jaundice

How do you determine an appropriate antibiotic treatment?

Use the chart in your Chart Booklet to identify recommended antibiotic for local bacterial infection.

When deciding on antibiotics:

1. Determine the appropriate local **first and second line** antibiotics
2. Determine the **dose** based on the young infant’s weight

<table>
<thead>
<tr>
<th>AGE or WEIGHT</th>
<th>CO-TRIMOXAZOLE (trimethoprim/suphameethoxazole)</th>
<th>AMOXICILLIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Give two times daily for 5 days</td>
<td></td>
</tr>
<tr>
<td>Birth to 1 month (under 4 kg)</td>
<td>ADULT TABLET single strength (80/400 mg)</td>
<td>TABLET (250 mg)</td>
</tr>
<tr>
<td></td>
<td>PEDIATRIC TABLET (20/100 mg)</td>
<td>1/4</td>
</tr>
<tr>
<td></td>
<td>SYRUP (40/200 mg)</td>
<td>1.25ml*</td>
</tr>
<tr>
<td>1 to 2 months (4 to under 6 kg)</td>
<td>1/4</td>
<td>1</td>
</tr>
</tbody>
</table>

Avoid giving Cotrimoxazole to a young infant less than 1 month of age who is premature or jaundiced. Give this infant Amoxicillin instead.

HOW WILL YOU ADMINISTER ANTIBIOTIC TREATMENTS?
You will give the first dose in the clinic. Then you will teach the caregiver how to continue the treatment at home. Follow the steps in the Chart Booklet for teaching a caregiver how to give an oral antibiotic at home. That is, teach her how to measure a single dose.

Show her how to crush a tablet and mix it with breast milk. Guide her as needed to give the first dose, and teach her the schedule. Watch the caregiver and ask checking questions to be sure she knows how to give the antibiotic. We will learn more about good counselling skills in the next section.
How will you manage jaundice?

Young infants with JAUNDICE need home care just like those without any problem. They do not need any medication. However, the caregiver needs to be counselled to return immediately if palms and soles appear to be yellow. Also, you should follow up infants with jaundice in 1 day to assess if jaundice is worsening. If the young infant is older than 14 days, refer to hospital for assessment.

What local infections can be treated at home?

There are three types of local infections in a young infant that a caregiver can treat at home:

✔ An umbilicus which is red or draining pus,
✔ Skin pustules, or
✔ Oral thrush

Twice each day, the caregiver should clean the infected area and then apply gentian violet. Half-strength gentian violet must be used in the mouth.

HOW DO YOU TEACH THE CAREGIVER TO TREAT LOCAL INFECTIONS AT HOME?

Explain and demonstrate the treatment to the caregiver. Then watch her and guide her as needed while she gives the treatment.

Remember to send supplies home with the caregiver. If the caregiver will treat skin pustules or umbilical infection, give her a bottle of full strength (0.5%) gentian violet. If the caregiver will treat thrush, give her a bottle of half-strength (0.25%) gentian violet.

Discuss when the caregiver should return to the clinic. She should return for follow-up in 2 days, or sooner if the infection worsens. She should stop using gentian violet after 5 days. Ask her checking questions to be sure that she knows to give the treatment twice daily and when to return.
SELF-ASSESSMENT EXERCISE E

Return to Sashi and Henri’s recording forms that you used earlier in this module.

Review the classifications on the recording form, to remind you of the infant’s condition. You will now decide on treatments required. Refer to the YOUNG INFANT chart as needed. For each infant, decide how to answer the following questions. Write your complete answers below, including specific treatments (e.g. schedule, dosing).

a. Should the infant be urgently referred? What pre-referral treatments are required?

b. If the infant does not need to be urgently referred, write all recommended treatments and advice for the caregiver.

1. HENRI:

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

2. SASHI:

_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
2.8 PROVIDE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

WHY IS FOLLOW-UP CARE SO IMPORTANT FOR THE YOUNG INFANT?

Follow-up visits are especially important for a young infant because they progress quickly in their illness. During a follow-up visit, you will do two things.

1. **RE-ASSESS** the conditions that you classified and treated during the initial visit. Are these conditions:
   - Improving?
   - The same?
   - Worsening?

2. **RE-ASSESS USING IMCI TO IDENTIFY NEW ISSUES**, if there are any. You will use a second recording form for this visit.

WHEN SHOULD AN INFANT COME FOR A FOLLOW-UP VISIT?

The time required for a follow-up visit is established for all conditions. You will record this follow-up date on the recording form and advise the caregiver.

**RETURN FOR FOLLOW-UP VISIT**

<table>
<thead>
<tr>
<th>If the infant has…</th>
<th>Return for first follow-up in…</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Jaundice</td>
<td>1 day</td>
</tr>
<tr>
<td>✔ Local bacterial infection</td>
<td></td>
</tr>
<tr>
<td>✔ Thrush</td>
<td>2 days</td>
</tr>
<tr>
<td>✔ Diarrhoea</td>
<td></td>
</tr>
</tbody>
</table>

WHERE ARE THE INSTRUCTIONS FOR FOLLOW-UP VISITS?

Your Chart Booklet has charts with instructions for follow-up care for each condition. These charts follow the section on treatment. These instructions will re-assess by ASKING, LOOKING, FEELING, and LISTENING.

You will now learn the instructions from these charts. As you read this section, follow along in your Chart Booklet.

**LOCAL BACTERIAL INFECTION (follow-up 2 days)**

A young infant classified with local bacterial infection should return for follow up in 2 DAYS. At the follow-up, you will:

✔ **LOOK at the umbilicus. Is it red or draining pus?**

✔ **LOOK for skin pustules. Are they less in number? Are they drying up?**

▲ **UMBILICUS PUS/REDNESS OR SKIN PUSTULES ARE IMPROVED**

Tell the caregiver to **complete the 5 days of an antibiotic** that she was given during the initial visit. Improved means there is less pus and redness has reduced.
Similarly, if skin pustules have improved, which means they are less in number and are drying up, tell the caregiver to continue giving the antibiotic. **Emphasize that it is important to continue giving the antibiotic even when the infant is improving.** She should also continue treating the local infection at home for 5 days. This includes cleaning the area and applying gentian violet.

▲ ► **UMBILICUS PUS/REDNESS OR SKIN PUSTULES ARE SAME OR WORSE**

The infant is not improving, or is getting worse. Refer the infant to hospital if skin pustules or umbilicus is the same or worse than before.

**JAUNDICE (follow-up 1 day)**

An infant with jaundice should return in 1 DAY. During the follow-up visit:

✔ **LOOK for jaundice – are palms and soles yellow?**

▲ **JAUNDICE HAS STARTED DECREASING**

Reassure the caregiver and ask her to continue home care. Ask her to return for follow-up at 2 weeks of age. If jaundice continues beyond two weeks of age, refer the young infant to a hospital for further assessment.

▲ ► **JAUNDICE HAS NOT DECREASED, BUT PALMS & SOLES NOT YELLOW**

Advise the caregiver on home care and ask her to return for follow up in 1 day.

▼ **PALMS AND SOLES ARE YELLOW**

This child is getting worse. The child needs urgent referral to the hospital.

**THRUSH (follow-up 2 days)**

When a young infant who had thrush returns for follow-up in 2 DAYS, you will:

✔ **LOOK for ulcers or white patches in mouth (thrush)**

✔ **Reassess the infant’s feeding**

▲ ► **THRUSH IS BETTER OR SAME, AND THE INFANT IS FEEDING WELL**

Continue treatment with half-strength gentian violet. Stop using gentian violet after 5 days.

▼ **THRUSH IS WORSE, OR PROBLEMS ATTACHING OR SUCKLING**

Refer to hospital. It is very important that the infant be treated so that he can resume good feeding as soon as possible.
How will you provide follow-up care to Mimi?

Now you will return to Mimi and her caregiver, Biya. You referred Mimi urgently for signs of severe disease, and for jaundice. Biya was very worried about Mimi, especially because she was not feeding. She assured you that she would take Mimi to the hospital.

So what happened to Mimi?

Biya took Mimi to the nearby district hospital, and she was admitted to the newborn care ward.

Mimi was given intravenous fluids and parenteral antibiotics. She was put in a warm room. After some time in the hospital, she started to suck well. Her body temperature returned to 37.0 degrees, which is safe for a young infant. Mimi was discharged after 5 days stay in the hospital.

Two days later, Biya brought Mimi for her follow-up appointment at the clinic. How will you provide follow-up care to Mimi? How will you counsel Biya?

SELF-ASSESSMENT EXERCISE F

You will return to Sashi’s case to discuss follow-up care for this infant.

Sashi is 1 week old. The health worker classified her as having LOCAL BACTERIAL INFECTION because she had some skin pustules on her buttocks. Her caregiver got pediatric tablets of cotrimoxazole to give at home, and learned how to clean the skin and apply gentian violet at home. She has returned for a follow-up visit after 2 days. Sashi has no new problems. At this clinic, local bacterial infections are treated with co-trimoxazole.

1. How would you reassess Sashi?

When you look at the skin of her buttocks, you see that there are fewer pustules and less redness.

2. What treatment does Sashi need now?
PART II

Feeding problems and counselling the caregiver
2.9 ASSESS FEEDING PROBLEMS OR LOW WEIGHT

WHY IS FEEDING SO IMPORTANT FOR THE YOUNG INFANT?

Adequate feeding is essential for the infant’s health, growth and development. Poor feeding during infancy increases the risk of infection and death. It also impairs growth and may have lifelong effects such as increasing the risk of poor development, or obesity.

WHEN DO YOU NEED TO ASSESS A YOUNG INFANT’S FEEDING?

You will assess feeding in all young infants except those that have severe classifications.

For ALL sick young infants - ask the caretaker about the infant’s problems, check for signs of serious disease or local infection, assess for jaundice and diarrhoea, then FOR ALL YOUNG INFANTS THAT DO NOT REQUIRE URGENT REFERRAL ASK: DOES THE INFANT HAVE ANY PROBLEMS FEEDING?

NO

YES

1. ASSESS & CLASSIFY feeding problems and low weight

CHECK immunization status and other problems. Assess the mother’s health.

WHY DO SOME YOUNG INFANTS HAVE FEEDING PROBLEMS?

Some feeding and weight problems are associated with prematurity (born before 37 weeks of pregnancy), or low birth weight.

A low birth weight baby (LBW) is small for gestational age. He did not grow well enough in the uterus during pregnancy. LBW babies are more likely to have breathing and feeding problems and develop infection and die than babies with a normal birth weight.

LBW babies who survive are likely to have more medical and developmental problems than normal term babies. Some communities believe that these babies are born to die. As a health worker you have important role to change this belief and help caregivers and family members to provide the extra care the LBW baby needs.

LOW BIRTH WEIGHT = under 2500 grams (2.5 kg)

VERY LOW BIRTH WEIGHT = under 1500 grams (1.5 kg)
WHAT ARE CRITICAL FEEDING RECOMMENDATIONS FOR YOUNG INFANTS?

The best way to feed a child from birth to 6 months is to breastfeed exclusively. There are two important things to emphasize about this breastfeeding:

**EXCLUSIVE BREASTFEEDING** means that the child takes only breast milk and no additional food, water, or other fluids. Medicines and vitamins are exceptions. Exclusive breastfeeding reduces the risk of diarrhoea and pneumonia as well as the risk of mortality.

**BREASTFEEDING ON DEMAND** means children at this age should receive breast milk as often as they want, day and night. This will be at least 8 times in 24 hours.

ALL INFANTS UP TO 6 MONTHS SHOULD BREASTFEED:

- **EXCLUSIVELY**: infant takes only breast milk and nothing else
- **ON DEMAND**: as often as they want, day and night
- **AT LEAST 8 TIMES IN 24 HOURS**

WHAT WILL YOU RECOMMEND TO A CAREGIVER WHO IS NOT BREASTFEEDING?

If a child under 6 months old is receiving food or fluids other than breast milk, encourage and help the caregiver to gradually change back to more or exclusive breastfeeding.

Suggest giving more frequent, longer breastfeeds, day and night. As breastfeeding increases, the caregiver should gradually reduce other milk or food. Since this is an important change in the child’s feeding, be sure to ask the caregiver to return for follow-up in 5 days. She will need your help and support.

If the caregiver is HIV positive, she will need separate advice. This is discussed in your modules on feeding recommendations and HIV/AIDS.

HOW WILL YOU ASSESS FOR FEEDING PROBLEMS AND LOW WEIGHT?

You will assess every young infant for feeding problems and low weight, except those who have severe classifications.

The assessment has two parts. You will now learn about each part of the assessment:

**PART A:** ASSESS FOR FEEDING PROBLEM OR LOW WEIGHT

IF INFANT HAS FEEDING PROBLEM OR BREASTFEEDS LESS THAN 8 TIMES IN 24 HOURS

**PART B:** ASSESS BREASTFEEDING

HIV-exposed infants not breastfeeding have a separate assessment you will read later.
PART A. ASSESS FOR FEEDING PROBLEM OR LOW WEIGHT

This first part of the assessment will give you an overall picture of the infant’s feeding and identify any issues. You will also determine if the infant is low weight for age.

WHO DO YOU ASSESS FOR FEEDING PROBLEMS AND LOW WEIGHT?

Every sick young infant is assessed for feeding problems or low weight. The only exception is young infants with a severe classification. These infants should be referred immediately.

LOCATE THIS ASSESSMENT ON YOUR RECORDING FORM:

THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT

If the infant has no indication to refer urgently to hospital

- Is there any difficulty feeding? Yes ___ No ___
- Is the infant breastfed? Yes ___ No ___
  If yes, how many times in 24 hours? ___ times
- Does the infant usually receive any other foods or drinks? Yes ___ No ___
  If yes, how often?
- What do you use to feed the child?
- Determine weight for age. Low ___ Not low ___
- Look for ulcers or white patches in the mouth (thrush).

HOW WILL YOU ASSESS?

Open to your chart booklet to review the instructions in the ASSESS chart:

ASK: IS THERE ANY DIFFICULTY FEEDING?

Any difficulty that the caregiver mentions is important. This caregiver may need counselling or specific help with a difficulty.

If a caregiver says that the infant is not able to feed, you will assess breastfeeding or watch her try to feed the infant with a cup to see what she means by this. An infant who is not able to feed may have a serious infection or other life-threatening problem and should be referred urgently to hospital.

ASK: IS THE INFANT BREASTFEEDING? HOW MANY TIMES IN THE LAST 24 HOURS?

The recommendation is that the young infant be breastfed as often and for as long as the infant wants, day and night. This should be 8 or more times in 24 hours.
ASK: DOES THE INFANT RECEIVE OTHER FOOD OR DRINKS? IF YES, HOW OFTEN?
A young infant should be exclusively breastfed. Find out if the young infant is receiving any other foods or drinks such as other milk, juice, tea, thin porridge, dilute cereal, or even water. Ask how often he receives it and the amount. You need to know if the infant is mostly breastfed, or mostly fed on other foods.

DETERMINE WEIGHT FOR AGE
Some young infants who are low weight for age were born with low birth weight. Some did not gain weight well after birth. Use a weight for age chart in the IMCI Chart Booklet. You will find the intersection of the lines for the child’s weight and age. You will determine if this point is considered low weight for age.

IMPORTANT TIPS FOR YOUR WEIGHT-FOR-HEIGHT CHART:
✔ FIND THE LOW WEIGHT FOR AGE LINE: you will use this line to determine if young infants are low weight for age. Do not use the line for very low weight for age, which is used for older infants and children.
✔ AGES ARE IN WEEKS: because the young infant is under 2 months (8 weeks) old. The weight for age chart for children 2 months and older is labelled in months.
✔ SAME FOR BOYS AND GIRLS: The chart for young infants is the same for boys and girls. In older children there are separate charts for boys and girls.

EXAMPLE: A young infant is 6 weeks old and weighs 3 kg. Here is how the health worker checked if the infant was low weight for age:

1. Locate the infant’s weight: 3 kg
2. Locate infant’s age: 6 weeks

SUMMARY: The star is the point where the lines for age and weight meet. The point is BELOW the low weight for age line.
THE INFANT IS LOW WEIGHT FOR AGE
LOOK FOR ULCERS OR THRUSH

Young infants may also have ulcers or white patches in the mouth. It is important to treat these infections so that the young infant feeds well.

**Look for thrush.** Look inside the mouth at the tongue and inside of the cheek. Thrush looks like milk curds on the inside of the cheek, or a thick white coating of the tongue. Try to wipe the white off. The white patches of thrush will remain.

SELF-ASSESSMENT EXERCISE G

Practice assessing and classifying young infants for feeding problems.

1. What are three very important recommendations you will give to caregivers about the best way to feed a young infant from 0–6 months?

2. TRUE OR FALSE: a young infant with severe jaundice should be assessed for feeding problems and low weight.

3. Practice charting weight for age in young infants:

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>AGE</th>
<th>Is this infant low weight for age?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>a. 2.5 kg</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>b. 3 kg</td>
<td>2 weeks</td>
<td></td>
</tr>
<tr>
<td>c. 4 kg</td>
<td>8 weeks</td>
<td></td>
</tr>
<tr>
<td>d. 3.2 kg</td>
<td>4 weeks</td>
<td></td>
</tr>
<tr>
<td>e. 4.5 kg</td>
<td>3 weeks</td>
<td></td>
</tr>
<tr>
<td>f. 3.3 kg</td>
<td>2 weeks</td>
<td></td>
</tr>
<tr>
<td>g. 3.1 kg</td>
<td>7 weeks</td>
<td></td>
</tr>
</tbody>
</table>

4. What is low birth weight?

5. What is very low birth weight?

You have finished learning how to assess an infant for feeding problems. Now you will learn about part 2 of the assessment. This is an assessment of breastfeeding, when needed.
PART B. ASSESS BREASTFEEDING

WHEN WILL YOU ASSESS HOW AN INFANT IS BREASTFEEDING?
You need to assess breastfeeding if the infant:
✓ Does not need urgent referral
✓ Is feeding less than 8 times in 24 hours
✓ Mixed feeding: is taking other food or drinks
✓ If the caregiver’s answers indicate difficulty with breastfeeding
✓ Is low weight for age (remember that this is often due to low birthweight, and low birthweight infants are especially likely to have breastfeeding problems)

LOCATE THIS ASSESSMENT ON YOUR RECORDING FORM:

ASSESS BREASTFEEDING
◆ Has the infant breastfed in the previous hour? If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
◆ Is the infant able to attach? To check attachment, look for:
  ○ Chin touching breast: Yes ___ No ___
  ○ Mouth wide open: Yes ___ No ___
  ○ Lower lip turned outward: Yes ___ No ___
  ○ More areola above than below the mouth: Yes ___ No ___
◆ Is the infant well attached? 
  not well attached  good attachment
◆ Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?
  not sucking  sucking effectively

HOW WILL YOU ASSESS BREASTFEEDING?
Assessing breastfeeding requires careful observation. Review your chart booklet.
The ASSESS chart provides the following instructions:

ASSESS BREASTFEEDING:
◆ Has the infant breastfed in the previous hour?
  If the 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 well attached?
    not well attached  good attachment
◆ TO CHECK ATTACHMENT, LOOK FOR:
  ○ Chin touching breast
  ○ Mouth wide open
  ○ Lower lip turned outwards
  ○ More areola visible above than below the mouth
  (All of these signs should be present if the attachment is good.)
◆ Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?
  not sucking effectively  sucking effectively
Clear a blocked nose if it interferes with breastfeeding.

Now you will learn what to look for in this assessment.
ASK: HAS THE INFANT BREASTFED IN THE PREVIOUS HOUR?

IF YES, ask the caregiver to wait and tell you when the infant is willing to feed again. In the meantime, complete the assessment by checking the infant’s immunization status. You may also decide to begin any treatment that the infant needs, such as giving an antibiotic for local bacterial infection or ORS solution for some dehydration.

IF INFANT HAS NOT BREASTFED IN PAST HOUR, he may be willing to breastfeed. Ask the caregiver to put her infant to the breast. Observe a whole breastfeeding if possible, or observe for at least 4 minutes. Sit quietly and watch the infant breastfeed.

LOOK: IS THE INFANT ABLE TO ATTACH?

You will look for four signs of good attachment to assess this. You will determine if the infant is well attached, not well attached, or not attaching at all.

WHAT ARE THE SIGNS OF GOOD ATTACHMENT?

The infant is well attached if you see all four signs of good attachment:

1. Chin touching breast, or very close
2. Mouth wide open
3. Lower lip turned outward
4. More areola visible above than below the mouth

WHEN IS THE INFANT NOT WELL ATTACHED?

The infant is not well attached if you see any of the four signs of poor attachment:

1. Chin not touching breast
2. Mouth not wide open, lips pushed forward
3. Lower lip turned in, or
4. More areola (or equal amount) visible below infant’s mouth than above it

If a very sick infant cannot take the nipple into his mouth and keep it there to suck, he has no attachment at all, and is not able to breastfeed at all.
WHAT HAPPENS IF AN INFANT IS NOT WELL ATTACHED?
If an infant is not well attached, it may cause pain or damage to the nipples. Or the infant may not remove breast milk effectively, which may cause engorgement of the breast.

The infant may be unsatisfied after breastfeeds and want to feed very often or for a very long time. The infant may get too little milk and not gain weight, or the breast milk may dry up. All these problems may improve if attachment can be improved.

SELF-ASSESSMENT EXERCISE H
Circle the signs of good attachment. Cross-out the signs of poor attachment.

- Chin away from breast
- Mouth wide open
- More areola visible above than below mouth
- Lower lip turned outward
- Narrow mouth with lips pushed forward
- Chin touching breast
- Equal amount areola visible below/above mouth
- Lower lip turned in

LOOK TO SEE IF THE INFANT IS SUCKLING EFFECTIVELY
The infant is suckling effectively if he suckles with slow deep sucks and sometimes pauses. You may see or hear the infant swallowing. If you can observe how the breastfeed finishes, look for signs that the infant is satisfied. If satisfied, the infant releases the breast spontaneously (that is, the caregiver does not cause the infant to stop breastfeeding in any way). The infant appears relaxed, sleepy, and loses interest in the breast.

An infant is not suckling effectively if he is taking only rapid, shallow sucks. You may also see indrawing of the cheeks. You do not see or hear swallowing. The infant is not satisfied at the end of the feed, and may be restless. He may cry or try to suckle again, or continue to breastfeed for a long time.

An infant who is not suckling at all is not able to suck breast milk into his mouth and swallow. Therefore he is not able to breastfeed at all. If a blocked nose seems to interfere with breastfeeding, clear the infant’s nose. Then check whether the infant can suckle more effectively.

SELF-ASSESSMENT EXERCISE I
Match signs with how well the infant is suckling.

- a. Unable to suck breast milk.
  - Nose is not blocked.
- b. Suckles deeply, sometimes pausing.
  - Releases on own when satisfied.
  - Cheeks draw in. Restless.

SUCKLING EFFECTIVELY

<table>
<thead>
<tr>
<th>NOT SUCKLING EFFECTIVELY</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT SUCKLING AT ALL</td>
</tr>
</tbody>
</table>

Watch “Demonstration: breastfeeding assessment” (disc 2)
In this video you will see all steps in breastfeeding assessment, and examples of good attachment and suckling.
HOW WILL YOU CLASSIFY FEEDING PROBLEMS & LOW WEIGHT?
Open to your classification table for feeding problems and low weight. What do you observe? There are two possible classifications for feeding problem or low weight:

1. FEEDING PROBLEM or LOW WEIGHT (YELLOW)
2. NO FEEDING PROBLEM (GREEN)

<table>
<thead>
<tr>
<th>Yellow: FEEDING PROBLEM OR LOW WEIGHT</th>
<th>Green: NO FEEDING PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not well attached to breast or Not sucking effectively or Less than 8 breastfeeds in 24 hours or Receives other foods or drinks or Low weight for age or Thrush (ulcers or white patches in mouth).</td>
<td>• Advise mother to give home care for the young infant • Praise the mother for feeding the infant well</td>
</tr>
<tr>
<td>• If not well attached or not sucking effectively, teach correct positioning and attachment o If not able to attach well immediately, teach the mother to express breast milk and feed by a cup o If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding. Advise the mother to breastfeed as often and as long as the infant wants, day and night o If receiving other foods or drinks, counsel the mother about breastfeeding more, reducing other foods or drinks, and using a cup o If not breastfeeding at all*: o Refer for breastfeeding counselling and possible relactation* o Advise about correctly preparing breast-milk substitutes and using a cup o Advise the mother how to feed and keep the low weight infant warm at home o If thrush, teach the mother to treat thrush at home o Advise mother to give home care for the young infant o Follow-up any feeding problem or thrush in 2 days o Follow-up low weight for age in 14 days</td>
<td></td>
</tr>
</tbody>
</table>

WHY IS NOT ABLE TO FEED NOT ON THIS CLASSIFICATION CHART?
The first and most severe classification, NOT ABLE TO FEED, was assessed when you checked for signs of serious disease or possible local infection.
As such, this classification is not included on the classification chart for feeding problem or low weight for age.

If the infant was NOT ABLE TO FEED, it was a severe classification (RED) because this infant has a life-threatening problem. The infant requires the same urgent pre-referral as SEVERE DISEASE, and then must be urgently referred.
FEEDING PROBLEM OR LOW WEIGHT (YELLOW)

The classification of feeding problem or low weight includes infants who are low weight for age or infants who have some sign that their feeding needs improvement. They are likely to have more than one of these signs.

What are your actions?
Advise the caregiver of any young infant in this classification to breastfeed as often and for as long as the infant wants, day and night. Short breastfeeds are an important reason why an infant may not get enough breast milk. The infant should breastfeed until he is finished.

Teach each caregiver about any specific help her infant needs, such as better positioning and attachment for breastfeeding, or treating thrush.

NO FEEDING PROBLEM (GREEN)

A young infant classified as having no feeding problem is exclusively and frequently breastfed. Not low weight for age means that the infant’s weight for age is not below the line for “Low Weight for Age”.

What are your actions?
The infant’s caregiver may still require counselling on good feeding to ensure that the infant gains weight properly.

How did you assess and classify Mimi’s feeding?
Biya breastfeeds Mimi. She explained earlier that she came to the clinic because Mimi had not been feeding well for the past few days, and since this morning she was not taking the breast at all.

When you ask Biya to try and breastfeed, Mimi will not attach. This is a severe sign, as you classified earlier for SEVERE DISEASE (RED).

You are not able to assess breastfeeding with Biya because Mimi will not take the breast. You checked Mimi for thrush and ulcers, and she has none.

Is Mimi low weight for her age?
Mimi is 6 weeks old and weighs 3.1 kg. Biya has told you that she is at a lower weight now than she was at birth.

Mimi is low weight for age, because her weight falls below the low weight for age line used for young infants.
WHAT IF THE INFANT DOES NOT TAKE ANY BREAST MILK?

If the infant takes no breast milk, you will skip the previous two-part assessment. You will instead complete a different assessment.

You will assess what the caregiver is feeding, and how. You will also use this chart when an HIV positive caregiver has chosen not to breastfeed.

What does the ASSESS chart look like for this assessment?

Ask:
- What milk are you giving?
- How many times during the day and night?
- How much is given at each feed?
- How are you preparing the milk?
- Let mother demonstrate or explain how a feed is prepared, and how it is given to the infant.
- Are you giving any breast milk at all?
- What foods and fluids in addition to replacement feeds is given?
- How is the milk being given?
- Cup or bottle?
- How are you cleaning the feeding utensils?

LOOK, LISTEN, FEEL:
- Determine weight for age.
- Look for ulcers or white patches in the mouth (thrush).

You will CLASSIFY with the following chart:

<table>
<thead>
<tr>
<th>Yellow: FEEDING PROBLEM OR LOW WEIGHT</th>
<th>Green: NO FEEDING PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk incorrectly or unhygienically prepared or Giving inappropriate replacement feeds or Giving insufficient replacement feeds or An HIV positive mother mixing breast and other feeds before 6 months or Using a feeding bottle or Low weight for age or Thrush (ulcers or white patches in mouth).</td>
<td>Not low weight for age and no other signs of inadequate feeding.</td>
</tr>
<tr>
<td>Counsel about feeding Explain the guidelines for safe replacement feeding Identify concerns of mother and family about feeding. If mother is using a bottle, teach cup feeding Advise the mother how to feed and keep the low weight infant warm at home If thrush, teach the mother to treat thrush at home Advise mother to give home care for the young infant Follow-up any feeding problem or thrush in 2 days Follow-up low weight for age in 14 days</td>
<td>Advise mother to give home care for the young infant Praise the mother for feeding the infant well</td>
</tr>
</tbody>
</table>

Please refer to the HIV module for more information on assessing and classifying. The HIV module also contains information for counselling HIV-positive women on infant feeding.
2.10  CHECK IMMUNIZATIONS

WHY ARE IMMUNIZATIONS IMPORTANT?

Immunizations help protect young infants from infections that can be especially dangerous at their young age. **Health workers have an important responsibility** to ensure that young infants are on schedule with their immunizations, and to counsel caregivers about the importance of immunizations on schedule. See Module 8 for more details.

HOW WILL YOU CHECK IMMUNIZATION STATUS?

You will check immunization status by examining:

✔ Has the young infant received all the immunizations recommended for his age?
✔ Does the young infant need any immunizations today?

WHAT IMMUNIZATIONS ARE SCHEDULED FOR YOUNG INFANTS?

The immunization schedule relevant for young infants includes:

<table>
<thead>
<tr>
<th>AGE</th>
<th>VACCINE</th>
<th>VITAMIN A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>BCG</td>
<td>OPV-0</td>
</tr>
<tr>
<td></td>
<td>OPV-0</td>
<td></td>
</tr>
<tr>
<td>6 weeks</td>
<td>DPT+HIB-1</td>
<td>OPV-1</td>
</tr>
<tr>
<td>10 weeks</td>
<td>DPT+HIB-2</td>
<td>OPV-2</td>
</tr>
</tbody>
</table>

*Remember* that you should not give OPV 0 to an infant who is more than 14 days old. Therefore, if an infant has not received OPV 0 by the time he is 15 days old, you should wait to give OPV until he is 6 weeks old. Then give OPV 1 together with DPT 1.

When included in the National Immunization schedule, give three doses of Hepatitis B and three doses of Haemophilus influenzae type b (Hib) vaccine; at 6 weeks, 10 weeks and 14 weeks, just like DPT.

HOW DO YOU MANAGE ANY REQUIRED IMMUNIZATIONS?

Administer any immunizations that the young infant needs today. Tell the caregiver when to bring the infant for the next immunizations, and record this on your recording form. **If young infant is going to be referred, do not immunize before referral.**
SELF-ASSESSMENT EXERCISE J

Decide if the infant needs any immunizations today, and which ones.

<table>
<thead>
<tr>
<th>AGE</th>
<th>STATUS</th>
<th>What does the infant need today, if anything? How will you handle the case?</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 days</td>
<td>Received BCG</td>
<td></td>
</tr>
<tr>
<td>7 weeks</td>
<td>Received DPT-1, HIB-1</td>
<td></td>
</tr>
<tr>
<td>4 weeks</td>
<td>Received BCG, OPV-0</td>
<td></td>
</tr>
<tr>
<td>8 weeks</td>
<td>Received BCG, OPV-0. Infant is being urgently referred today.</td>
<td></td>
</tr>
</tbody>
</table>

FINALLY, YOU WILL ASSESS FOR OTHER PROBLEMS:

Assess any other problems that the caregiver mentions or that you observe. Refer to other guidelines on treatment of those problems. If you think the infant has a serious problem, or if you do not know how to help the infant, refer the infant to hospital.

WHAT WILL YOU ASK THE CAREGIVER ABOUT HER OWN HEALTH?

This can provide valuable background information about the caregiver, the child’s health status, and the household situation. This information will allow you to better counsel the caregiver.

Assessing a caregiver’s well-being should include the following:

✓ Preventing and detecting postpartum complications (e.g. infections, bleeding, anaemia)
✓ Preventing or managing anaemia (iron and folic acid supplementation)
✓ Providing information and counselling on nutrition, safe sex and family planning
✓ Providing contraception
✓ Planning postnatal care, including advice on danger signs and emergency preparedness
✓ Promoting use of insecticide treated nets

How will you manage immunizations for Mimi today?

You have classified Mimi with several severe signs, and she requires urgent referral.

Mimi is due for her immunizations at 6 weeks: DPT-1 + HIB-1, OPV-1, and Hepatitis B1. You will not give Mimi these immunizations now, because it will delay referral. You will include a note about these immunizations on her referral note so the staff can decide what to give her.

Biya told you when she arrived that she had made an appointment for her own post-natal care. Your first priority is to stabilize Mimi for severe signs, and then you will assess Biya’s health. The recording form gives you space to make notes from this assessment.

How will you fill out this section of Mimi’s recording form?
2.11 COUNSEL THE CAREGIVER ON FEEDING

REFRESH!
In the introduction to these self-study modules, you learned some important communications skills when counselling caregivers. Refer to PART 1 of this book to review these good communications skills.

WHY IS COUNSELLING A CAREGIVER ABOUT THE YOUNG INFANT SO CRITICAL?
Counselling the caregiver is a vital component of IMCI for the sick young infant. You learned at the beginning of this module that young infants have special characteristics, and require certain care for disease protection, healthy growth, and development. Families need to fully understand these important care measures.

WHAT ARE THE MOST IMPORTANT MESSAGES ABOUT THE YOUNG INFANT?
✔ BREASTFEED – caregivers should breastfeed exclusively and on demand
✔ KEEP INFANTS WARM – especially low weight infants
✔ WASH HANDS – before handling infants
✔ KEEP UMBILICAL CORD CLEAN
✔ BRING INFANT TO CLINIC IMMEDIATELY – if infant shows any signs of severe disease or local infection

You will learn how to counsel on breastfeeding in this section (2.2.3). In the next section (2.2.4) you will learn how to counsel on these other care measures.

HOW WILL YOU COUNSEL A CAREGIVER ABOUT FEEDING?
Feeding is a very important topic to counsel the caregiver about. There are four particularly critical topics you must cover, including:
1. Correct positioning and attachment for breastfeeding
2. Expressing breast milk
3. Feeding by cup
4. Addressing other feeding problems
You will read more about these four topics in the following pages.
FEEDING #1

HOW WILL YOU TEACH CORRECT BREASTFEEDING POSITIONING AND ATTACHMENT?
If the young infant is not correctly positioned or attached, they are not feeding optimally.

WHAT ARE THE REASONS FOR POOR ATTACHMENT OR INEFFECTIVE SUCKLING?
There are several reasons that an infant may be poorly attached or not able to suckle effectively. Perhaps the infant was small and weak, or there was a delay starting to breastfeed. The child may have had bottle feeds, especially in the first few days after delivery. His caregiver may be inexperienced, or had some difficulty like flat nipples and nobody was there to help or advise her.

HOW WILL YOU TEACH A CAREGIVER TO IMPROVE POSITIONING AND ATTACHMENT?
If in your assessment of breastfeeding you found any difficulty with attachment or suckling, help the caregiver position and attach her infant better.

Make sure that the caregiver is comfortable and relaxed, for example, sitting on a low seat with her back straight. Then follow the steps in the box below.

TEACH CORRECT POSITIONING & ATTACHMENT FOR BREASTFEEDING

Show her how to hold her infant:
✔ With the infant’s head and body in line
✔ With the infant approaching breast with nose opposite to the nipple
✔ With the infant held close to the caregiver’s body
✔ With the infant’s whole body supported, not just neck and shoulders

Show her how to help the infant to attach. She should:
✔ Touch her infant’s lips with her nipple
✔ Wait until her infant’s mouth is opening wide
✔ Move her infant quickly onto her breast, aiming the infant’s lower lip well below the nipple

Look for signs of good attachment and effective suckling. If the attachment or suckling is not good, try again.
WHAT ARE GOOD PRACTICES WHEN OBSERVING A BREASTFEED?

Always observe a caregiver breastfeeding before you help her, so that you understand her situation clearly. Do not rush to make her do something different.

ENCOURAGE

If you see that the caregiver needs help, first say something encouraging, like: “She really wants your breast milk, doesn't she?”

GIVE POSITIVE SUGGESTIONS

Then explain what might help and ask if she would like you to show her. For example, say something like, “Breastfeeding might be more comfortable for you if your young infant took a larger mouthful of breast. Would you like me to show you how?” If she agrees, you can start to help her.

DO NOT TAKE OVER

As you show the caregiver how to position and attach the infant, be careful not to take over from her. Explain and demonstrate what you want her to do. Then let the caregiver position and attach the infant herself.

CHECK & CORRECT

Then look for signs of good attachment and effective suckling again. If the attachment or suckling is not good, ask the caregiver to remove the infant from her breast and to try again.

ONCE THE INFANT IS WELL POSITIONED, WHAT INFORMATION IS IMPORTANT?

When the infant is suckling well, explain to the caregiver that it is important to breastfeed long enough at each feed. She should not stop the breastfeeding before the infant wants to.

“Demonstration: teach correct positioning & attachment” (disc 2)

This video shows examples of good and poor positioning, and instructions on how to show the caregiver how to position properly.
Feeding #2

HOW WILL YOU TEACH A CAREGIVER TO EXPRESS BREAST MILK?
All health workers who care for breastfeeding caregivers and young infants should be able to teach caregivers how to express their milk. Expressing breast milk is usually required for feeding infants who do not suck effectively, but can swallow well. This is often the case of low birth weight babies. Expressing milk is also useful to:

→ Relieve engorgement,
→ Feed a sick young infant who cannot suckle enough,
→ Keep up the supply of breast milk when a caregiver or young infant is ill, or
→ Leave breast milk for a young infant when his caregiver goes out or to work

WHAT IS THE BEST WAY TO EXPRESS MILK?
Hand expression is the most useful way to express milk. It needs no appliance, so a woman can do it anywhere, at any time. It is easy to hand express when the breasts are soft. It is more difficult when the breasts are engorged and tender. As such, teach a caregiver how to express her milk in the first or second day after delivery. Do not wait until the third day, when her breasts are full.

Many caregivers are able to express plenty of breast milk using different techniques. If a caregiver’s technique works for her, let her continue to do it that way. But if a caregiver is having difficulty expressing enough milk, teach her a more effective technique.

HOW SHOULD YOU SHOW A WOMAN HOW TO EXPRESS?
A woman should express her own breast milk. The breasts are easily hurt if another person tries. If you are showing a woman how to express, show her on your own body as much as possible, while she copies you. If you prefer not to use your own body, use a model breast, or practice on the soft part of your arm or cheek. If you need to touch her to show her exactly where to press her breast, be very gentle.

WHEN SHOULD A CAREGIVER START TO EXPRESS MILK?
A caregiver should start to express milk on the first day, within six hours of delivery if possible. She may only express a few drops of colostrum at first, but it helps breast milk production to begin, in the same way that a young infant suckling soon after delivery helps breast milk production to begin.

She should express as much as she can as often as her young infant would breastfeed. This should be at least every 3 hours, including during the night. If she expresses only a few times, or if there are long intervals between expressions, she may not be able to produce enough milk.
WHAT IF A CAREGIVER IS EXPRESSING MORE THAN HER INFANT NEEDS?

If a caregiver is expressing more than her low birth weight young infant needs, let her express the second half of the milk from each breast into a different container. Let her offer the second half of the expressed breast milk first. Her young infant gets more hind milk, which helps him to get the extra energy that he needs. This helps a young infant to grow better.

WHAT ARE THE STEPS FOR TEACHING HOW TO EXPRESS BREAST MILK?

PREPARATIONS

1. Choose a cup, glass or jug with a wide mouth. Wash the cup in soap and water. Pour boiling water into the cup, and leave it for a few minutes. Boiling water will kill most of the germs. Pour water out of cup when ready to express milk.
2. Wash hands thoroughly
3. Get comfortable

WHEN READY TO EXPRESS MILK

4. Hold a wide necked container under nipple and areola
5. Place thumb on top of the breast and the first finger on the underside of the breast so they are opposite each other (at least 4 cm from the tip of the nipple). See illustration below.
6. Compress and release the breast tissue between her finger and thumb a few times – see illustration below. If the milk does not appear she should re-position her thumb and finger closer to the nipple and compress and release the breast as before.
7. Compress and release all the way around the breast, keeping her fingers the same distance from the nipple. See illustration below. Be careful not to squeeze the nipple or to rub the skin or move her thumb or finger on the skin.
8. Express one breast until the milk just drips, then express other breast until the milk just drips.
9. Alternate between breasts 5 or 6 times, for at least 20 to 30 minutes. Stop expressing when the milk no longer flows but drips from the start.
Feeding #3

HOW WILL YOU TEACH A CAREGIVER TO FEED BY CUP?

If a young infant cannot breastfeed, he should be fed expressed breast milk by a cup. If the caregiver cannot or has chosen not to breastfeed, the infant should be fed a breast milk substitute by a cup.

TEACH THE CAREGIVER HOW TO FEED BY A CUP

✔ Put a cloth on the infant’s front to protect his clothes as some milk can spill
✔ Hold the infant semi-upright on the lap
✔ Put a measured amount of milk in the cup
✔ Hold the cup so that it rests lightly on the lower lip
✔ Tip the cup so that the milk just reaches the infant’s lips
✔ Allow the infant to take the milk himself. DO NOT pour the milk into the infant’s mouth.

WHY IS CUP FEEDING SAFER THAN BOTTLE FEEDING?

✔ Cups are easy to clean with soap and water, if boiling is not possible.
✔ Cups are less likely than bottles to be carried around for a long time, which gives bacteria time to breed
✔ A cup cannot be left beside a young infant, for the young infant to feed himself. The person who feeds a young infant by cup has to hold the young infant and look at him, and give him some of the contact that he needs.
✔ A cup does not interfere with suckling at the breast.
✔ A cup enables a young infant to control his own intake.

WHY IS CUP FEEDING PREFERABLE TO SPOON FEEDING?

➤ Spoon feeding takes longer
➤ Caregivers often find spoon feeding difficult, especially at night
➤ You need 3 hands to spoon feed: to hold the infant, the cup of milk, and the spoon
➤ Some caregivers give up spoon feeding before the young infant has had enough
➤ Some spoon-fed babies do not gain weight well.

However, spoon feeding is safe if a caregiver prefers it, and if she gives the young infant enough. Also, if a young infant is very ill, for example with difficult breathing, it is sometimes easier to feed him with a spoon for a short time.

SUMMARY OF FEEDING TIPS: Feeding from a cup is safer than a bottle. Cups are often easier to use than spoons, though spoons are safe.
Feeding #4

WHEN WILL YOU COUNSEL A CAREGIVER ABOUT OTHER FEEDING PROBLEMS?

➤ If a caregiver is breastfeeding less than 8 times in 24 hours:
   Advise her to increase the frequency of breastfeeding. The caregiver should breastfeed as often and for as long as the infant wants, day and night.

➤ If the infant receives other foods or drinks:
   Counsel the caregiver about breastfeeding more, reducing the amount of the other foods or drinks, and if possible, stopping altogether. Advise her to feed the infant any other drinks from a cup, and not from a feeding bottle.

➤ If a caregiver does not breastfeed at all:
   Consider referring her for breastfeeding counselling and possible re-lactation. If the caregiver is interested, a breastfeeding counsellor may be able to help her to overcome difficulties and begin breastfeeding again.

Advise a caregiver who does not breastfeed about choosing and correctly preparing an appropriate breastmilk substitute. Also advise her to feed with a cup, and not a bottle.

SELF-ASSESSMENT EXERCISE K

Practice what you have learned on counselling a caregiver about infant feeding.

1. Are the following statements TRUE or FALSE?
   a. Spoon feeding is not safe TRUE FALSE
   b. Cup feeding is the preferred method of feeding TRUE FALSE
   c. Bottle feeding is unsafe TRUE FALSE
   d. Cup feeding is preferred over spoon feeding TRUE FALSE
   e. Bottle feeding is most recommended for young infants to practice suckling TRUE FALSE

2. Srilekha is unsure how to hold her infant while breastfeeding. How will you show her how to hold?

3. Yoonhee is unsure how to help her infant attach. What should she do?

4. How frequently should a caregiver breastfeed in 24 hours? ________________

5. Jaya breastfeeds but also gives her 4-month old some watery porridge. What do you recommend for her feeding?
Follow-up

WHEN SHOULD A CAREGIVER FOLLOW-UP ABOUT THESE FEEDING PROBLEMS?

Young infants are asked to return sooner than older infants and young children. This is because they should be growing quickly, and are at higher risk if they do not gain weight. Quick follow-up is especially important if you are recommending a change in the way the infant is fed.

FEEDING PROBLEM OR THRUSH (FOLLOW-UP 2 DAYS)

When a young infant who had a feeding problem returns for follow-up in 2 days:

✔ Refer to the young infant’s chart or follow-up note for a description of the feeding problem found at the initial visit and previous recommendations.

✔ ASK: how have you carried out these recommendations? Did you have problems?

What actions will you take?

Counsel the caregiver about new or continuing feeding problems. Refer to the recommendations in the box “Counsel the Caregiver About Feeding Problems” on the COUNSEL chart and the box “Teach Correct Positioning and Attachment for Breastfeeding” on the YOUNG INFANT chart.

For example, you may have asked a caregiver to stop giving an infant water or juice in a bottle, and to breastfeed more frequently and for longer. You will assess how many times she is now breastfeeding in 24 hours and whether she has stopped giving the bottle. Then advise and encourage her as needed.

LOW WEIGHT FOR AGE (FOLLOW-UP 14 DAYS)

When a young infant classified as low weight for age returns in 14 DAYS, you will:

✔ Determine if the young infant is still low weight for age.

✔ Reassess his feeding by asking the questions the ASSESS box.

✔ Assess breastfeeding if the young infant is breastfed.

▲ NO LONGER LOW WEIGHT

Praise the caregiver for feeding the infant well. Encourage her to continue feeding the infant as she has been or with any additional improvements you have suggested.

▲► STILL LOW WEIGHT, BUT FEEDING WELL

Praise the caregiver. Ask her to have her infant weighed again within a month or when she returns for immunization. You will want to check that the infant continues to feed well and continues gaining weight. Many young infants who were low birth weight will still be low weight for age, but will be feeding and gaining weight well.
► STILL LOW WEIGHT, AND STILL HAS FEEDING PROBLEM
Counsel the caregiver about the problem. Ask the caregiver to return with her infant again in 14 days. Continue to see the young infant every few weeks until you are sure he is feeding well and gaining weight regularly or is no longer low weight for age.

▼ LOST WEIGHT, NO WEIGHT GAIN IN 14 DAYS
This young infant should be referred to the hospital. This is also the case if you think the problem will not improve.
2.12 COUNSEL THE CAREGIVER ON INFANT CARE

AFTER FEEDING, WHAT TOPICS WILL YOU DISCUSS WITH A CAREGIVER?

You will advise a caregiver on other important care for infants. To review these topics:

1. Keeping an infant warm
2. Maintaining good hygiene
3. When to follow-up

---

**Infant care #1**

**WHY IS IT IMPORTANT TO KEEP AN INFANT WARM AT HOME?**

It is important to maintain the body temperature of the newborn between 36.5 and 37.4 °C. Low temperature in the newborn has an adverse impact on the sick newborn and increases the risk of death. Low birth weight infants need greater attention to temperature care than those infants who do have not low birth weight.

**WHAT ARE GOOD PRACTICES FOR KEEPING AN INFANT WARM?**

There are several practices you should advise:

- Keep the infant in her bed in a warm room – with room temperature at least 25°C
- Avoid bathing the low weight infant
- Keep the infant dry at all times
- Periodically feel the hands and feet of the infant to make sure that they are warm.

***Skin-to-skin contact is the best way to re-warm*** the infant if the hands and feet are cold, and to prevent the infant getting cold.

**HOW DOES SKIN-TO-SKIN CONTACT WORK?**

Skin-to-skin contact can be provided by the caregiver or any adult. The adult body will transfer heat to the newborn. To keep the infant in skin-to-skin contact in the clinic, provide privacy to the caregiver and request her to sit or recline comfortably.

1. Undress infant gently, except for cap, nappy and socks.
2. Place infant against the caregiver’s bare chest in an upright and extended posture, between her breasts.
3. Turn infant’s head to one side to keep airways clear.
4. Cover the infant with caregiver’s blouse or gown. Then wrap caregiver-baby pair with an extra blanket or shawl.
5. Breastfeed the young infant frequently.
If skin-to-skin contact is not possible, dress and wrap the young infant ensuring that head, hands and feet are also well covered. Hold the young infant close to the caregiver’s body, in a room warmed by a heating device. Ask the caregiver to breastfeed the young infant frequently.

### Infant care #2

#### HOW WILL YOU COUNSEL ON GOOD HYGIENE CARE?

There are two very important hygiene practices when caring for a young infant:

- **WASH HANDS every time before handling the infant**
  
  Counsel the caregiver on the importance of washing hands before handling the infant. Emphasize that *everyone in the household who handles the young infant* should follow this practice. Everyone in the household must also wash hands after going to the toilet. Demonstrate to the caregiver how to properly wash hands with soap and water. This should emphasize the correct length of time, and scrubbing nails.

- **KEEP UMBILICAL CORD CLEAN**
  
  Cleaning the umbilical cord and area around it is an essential care practice. This area is particularly vulnerable to infection in the first weeks of a young infant’s life.

  **The cord must be kept clean and dry until the stump falls off.** If rubbing alcohol is available, this may help keep the stump dry and hygienic. This alcohol is very dangerous to drink and families must be careful in storing it away. If rubbing alcohol is not available, the caregiver should use clean water and soap to gently clean.

  **With good cord care, the umbilical cord usually separates one to two weeks after birth.** The wound often heals within 15 days. Even if it appears to be about to fall, advise parents they should not remove the stump.

### Infant care #3

#### HOW WILL YOU COUNSEL ON WHEN TO BRING THE INFANT BACK TO THE CLINIC?

Tell the caregiver when to return for a **follow-up visit** and **when to return immediately**. These are different visits, so you must explain them fully to the caregiver.

**FOLLOW-UP VISIT** is arranged to check on the conditions that you classified today.

<table>
<thead>
<tr>
<th>INFANT CLASSIFIED AS:</th>
<th>RETURN FOR FOLLOW-UP VISIT IN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Jaundice</td>
<td>1 day</td>
</tr>
<tr>
<td>✔ Local bacterial infection</td>
<td>✔ Thrush</td>
</tr>
<tr>
<td>✔ Feeding problem</td>
<td>✔ Diarrhoea</td>
</tr>
<tr>
<td>✔ Low weight for age</td>
<td>14 days</td>
</tr>
</tbody>
</table>
RETURNING IMMEDIATELY is required when young infant starts showing signs of serious illness. These signs are very important and caregivers should know them.

<table>
<thead>
<tr>
<th>RETURN IMMEDIATELY if the infant:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Breastfeeds poorly</td>
<td>✔ Feels unusually cold</td>
</tr>
<tr>
<td>✔ Reduces activity</td>
<td>✔ Is breathing fast or having difficulty breathing</td>
</tr>
<tr>
<td>✔ Becomes sicker</td>
<td>✔ Difficult breathing</td>
</tr>
<tr>
<td>✔ Develops a fever</td>
<td>✔ Palms and soles appear yellow</td>
</tr>
</tbody>
</table>

Teach the caregiver about these signs. Use the caregiver’s card to explain the signs. Ask her checking questions to be sure she knows when to return immediately.

SELF-ASSESSMENT EXERCISE L

In this exercise, you will use the case study SASHI from earlier in this module. Use Sashi’s recording form for this activity. Refer to the YOUNG INFANT chart as needed.

Review the infant’s assessment findings, classifications, and treatments needed. Answer the additional questions below about treating each case.

1. In addition to treatment with antibiotics, Sashi needs treatment at home for her local infection, that is, the pustules on her buttocks. List below the steps that her caregiver should take to treat the skin pustules at home.

2. How often should her caregiver treat the skin pustules?

3. Sashi also needs “home care for the young infant.” What are the 3 main points to advise the caregiver about home care?

4. What would you tell Sashi’s caregiver about when to return?
2.13 USING THIS MODULE IN YOUR CLINIC

HOW WILL YOU BEGIN TO APPLY THE KNOWLEDGE FROM THIS MODULE IN YOUR CLINIC?

Use your Chart Booklet and IMCI recording forms for the sick young infant as you practice in the clinic. In the coming days, you should focus on the clinical skills below.

**PART I**

**GREETING**
- ✔ Greet caregivers and use good communication skills to make them feel welcome
- ✔ Ask for important information from the caregiver: infant’s name, age, problems, history, temperature, and weight

**CHECK ALL YOUNG INFANTS FOR SIGNS OF SERIOUS ILLNESS**
- ✔ Assess if the infant is having difficulty feeding
- ✔ Look for severe chest indrawing
- ✔ Count breathing – is the young infant breathing too fast?
- ✔ Look at the umbilicus for signs of infection
- ✔ Look for skin pustules
- ✔ Assess the young infant’s movements
- ✔ Determine if the young infant has had convulsions

**ASSESS & CLASSIFY THE SICK YOUNG INFANT**
- ✔ Check all infants for jaundice, and assess and classify
- ✔ Check all infants for diarrhoea, and assess and classify

**TREAT THE SICK YOUNG INFANT**
- ✔ Provide pre-referral treatments in classification tables and prepare referral notes
- ✔ Treat infants to prevent low blood sugar
- ✔ Provide antibiotics and care for local infections

**PART II**

**ASSESS & CLASSIFY THE SICK YOUNG INFANT**
- ✔ Assess all infants for feeding problems and low weight, and classify
- ✔ Assess breastfeeding – look for signs of good attachment and positioning
- ✔ Check for immunizations
- ✔ Check for other problems, or any health problems the caregiver is having
COUNSEL A CAREGIVER ON FEEDING
✔ Counsel a caregiver on correct positioning and attachment for breastfeeding
✔ Teach a caregiver to express breast milk
✔ Teach a caregiver to feed by cup
✔ Counsel a caregiver on other feeding problems

COUNSEL ABOUT INFANT CARE
✔ Counsel about keeping an infant warm
✔ Show caregivers how to provide skin-to-skin care
✔ Counsel on hygiene and demonstrate good handwashing
✔ Counsel caregivers on when to return to the clinic for follow-up
✔ Counsel caregivers on the signs for immediate return to the clinic

Remember to use your logbook for MODULE 2:
- Complete logbook exercises, and bring completed to the next meeting
- Record cases on IMCI recording forms, and bring to the next meeting
- Take notes if you experience anything difficult, confusing, or interesting during these cases. These will be valuable notes to share with your study group and facilitator.
2.14 REVIEW QUESTIONS
AFTER THE MODULE: WHAT DO YOU KNOW NOW ABOUT MANAGING SICK YOUNG INFANTS?

Before you began studying this module, you practiced your knowledge on with several multiple-choice questions. Now that you have finished the module, you will answer the same questions. This will help demonstrate what you have learned.

Circle the best answer for each question.

1. Why do young infants require different care than sick children?
   a. Young infants are much quicker to recover from illness because they are young.
   b. Young infants show signs of illness differently. They can also become ill and die from an infection very quickly.
   c. Young infants very rarely get sick.

2. Which of the following is important care for a young infant?
   a. Keeping the infant loosely bundled so he can begin to move his arms and legs
   b. Keeping the umbilical cord moist so that it falls off quickly
   c. Keeping the infant warm through skin-to-skin care

3. What are the feeding recommendations for sick young infants?
   a. Exclusive, on-demand breastfeeding for at least 6 months
   b. Breastfeeding and additional sources of fluid, like water, to hydrate
   c. Soft complementary foods as soon as the child is ready

4. What are signs that a young infant is seriously ill and needs urgent referral and care?
   a. Breathing more than 60 breaths per minute
   b. Skin pustules
   c. Some jaundice, where the eyes are yellow but not the palms or soles

5. A young infant presents at your clinic, and his caregiver says the infant has been feeding well, but in the past 2 days is unable to breastfeed at all. What actions will you take?
   a. Counsel the caregiver on positioning and attachment so that the infant can breastfeed better.
   b. The infant is seriously ill if they are unable to feed. You must urgently refer.
   c. Recommend that the caregiver give other safe fluids by cup.

Check your answers on the next page. How did you do? ............... complete out of 5.

Did you miss questions?
Turn back to the section to re-read and practice the exercises.
EXERCISES PART I

EXERCISE A

1. Are these statements true or false? If they are false, write out the correct statement.
   a. TRUE Young infants are up to 2 months of age.
   b. FALSE. Correct: The IMCI process is the same for both the sick young infant and the sick child. They require separate charts because some signs and symptoms are age-specific.
   c. TRUE Severe infections are the most serious illness in the first two months of life.
   d. FALSE. Correct: Young infants show signs of illness very differently than older infants or children. This is why they are assessed for different signs and symptoms.
   e. FALSE. Correct: Sami is a sick child. Young infants are up to 2 months, so this does not include a child that is 2 months old.

2. Correct special care measures:
   ➔ Skin-to-skin contact (kangaroo care) to keep the infant warm
   ➔ Seek care immediately if infant develops signs of serious illness
   ➔ Exclusive, on-demand breastfeeding
   ➔ Give immunizations on schedule
   ➔ Wash hands before handling the young infant

EXERCISE B

1. 60 breaths or more per minute, counted twice.
2. Make sure infant is calm. Count breathing. If over 60 breaths per minute, count a second time to confirm.
3. Taking axillary (armpit) temperature, feeling the infant, or rectal temperature (temperature thresholds are .5 degrees higher)
4. 37.5 or more degrees Celsius
5. Below 35.5 degrees Celsius
6. If false, write the correct statement.
   a. FALSE Correct statement: Chest indrawing is identified when the infant breathes IN.
      In normal breathing, when the infant breathes IN, the abdomen and chest wall move out. With chest indrawing, the chest wall moves IN.
   b. FALSE Correct statement: If the umbilicus is red or draining pus, it is a sign of infection.
   c. TRUE
   d. TRUE

EXERCISE C
1. Answers below:
   a. T
   b. F
   c. T
   d. T
   e. T
   f. F
   g. T

2. Answers below:
   a. NO JAUNDICE (GREEN)
   b. SEVERE JAUNDICE (RED)
   c. JAUNDICE (YELLOW)

3. Biki has jaundice after 14 days of life. He should be referred for assessment.

EXERCISE D
1. Henri:
   Name: Henri
   Age: 6 hours
   Weight (kg): 3.0
   Temperature (°C): 36.5
   Initial Visit? X
   Follow-up Visit?
   CLASSIFY

   **CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**
   - Is the infant having difficulty in feeding?
   - Has the infant had convulsions?
   - Count the breaths in one minute. **70 breaths per minute**
   - Look for severe chest indrawing.
   - Look and listen for grunting.
   - Look at the umbilicus. Is it red or draining pus?
   - Fever (temperature 38°C or above feels hot) or low body temperature (below 35.5°C or feels cool)
   - Look for skin pustules. Are there many or severe pustules?
   - Movement only when stimulated or no movement even when stimulated?

   **THEN CHECK FOR JAUNDICE**
   - When did the jaundice appear first?
   - Look for jaundice (yellow eyes or skin)
   - Look at the young infant's palms and soles. Are they yellow?

   **DOES THE YOUNG INFANT HAVE DIARRHOEA?**
   - Look at the young infant's general condition. Does the infant:
     - move only when stimulated?
     - not move even when stimulated?
     - Is the infant restless and irritable?
     - Look for sunken eyes.
     - Pinch the skin of the abdomen. Does it go back:
       - Very slowly?
       - Slowly?

   **Return for next immunization on:**
   ________________________ (Date)
   
   **CHECK FOR HIV INFECTION**
   - Note mother's and/or child's HIV status:
     - Mother's HIV test:          NEGATIVE     POSITIVE     NOT DONE/KNOWN
     - Child's virological test:   NEGATIVE     POSITIVE     NOT DONE
     - Child's serological test:  NEGATIVE      POSITIVE     NOT DONE

   - If mother is HIV positive and NO positive virological test in young infant:
     - Is the infant breastfeeding now?
     - Was the infant breastfeeding at the time of test or 6 weeks before it?
     - If breastfeeding: Is the mother and infant on ARV prophylaxis?

   **ASSESS BREASTFEEDING**
   - Has the infant breastfed in the previous hour? If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
     - Is the infant able to attach? To check attachment, look for:
       - Chin touching breast: Yes ___  No ___
       - Mouth wide open: Yes ___ No ___
       - Lower lip turned outward: Yes ___ No ___
       - More areola above than below the mouth: Yes ___ No ___
     - Not well attached  Good attachment

   - Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?

   - CHECK THE CHILD'S IMMUNIZATION STATUS (Circle immunizations needed today)

   - Yes ___  No X
2. Sashi:

Name: Sashi  Age: 1 week  Weight (kg): 3.4  Temperature (°C): 37

ASSESS (Circle all signs present)

**Ask: What are the infant’s problems?: Initial Visit? Follow-up Visit?**

**Name:** Sashi  **Age:** 1 week  **Weight (kg):** 3.4  **Temperature (°C):** 37

**ASSESS:**

- **Other problems:**
  - Rash

**CHECK FOR SEVERE DISEASE AND LOCAL BACTERIAL INFECTION**

- Is the infant having difficulty in feeding?
- Has the infant had convulsions?

**THEN CHECK FOR JAUNDICE**

- When did the jaundice appear first?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant's palms and soles. Are they yellow?

**DOES THE YOUNG INFANT HAVE DIARRHOEA?**

- Move only when stimulated?
- Movement only when stimulated or no movement even when stimulated?
- Look at the umbilicus. Is it red or draining pus?
- Look for sunken eyes.
- Pinch the skin of the abdomen. Does it go back:
  - Slowly?
  - Very slowly?
  - Not well attached good attachment?
  - More areola above than below the mouth: Yes ___ No ___
  - Lower lip turned outward: Yes ___ No ___
  - Mouth wide open: Yes ___ No ___
  - Chin touching breast: Yes ___ No ___

**CLASSIFY**

- Local infection (yellow)

**EXERCISE E**

1. **HENRI:** Henri must be urgently referred. You classified him as VERY SEVERE DISEASE. He requires the following pre-referral treatments:
   - Treat first dose of intramuscular antibiotics: AMPICILLIN 1.0 ml and GENTAMICIN 1.6 ml
   - Treat to prevent low blood sugar (you will need to determine if he can breastfeed or swallow)
   - Advise caregiver how to keep Henri warm on way to hospital

2. **SASHIE:** Sashie was classified LOCAL INFECTION. She does not need to be urgently referred. She requires the following treatments:
   - Give oral antibiotic, and preferably syrup so that she can drink it. If you have COTRIMOXAZOLE, she will require 1.25 ml syrup, twice a day for 5 days. If you have AMOXICILLIN, she will require 2.5 ml syrup, twice a day for 5 days.
   - You will give the first dose in the clinic and then counsel the caregiver how to give the remaining doses – twice a day for 5 days. You will teach her how to give (GIVE INFORMATION, SHOW HER HOW TO DO IT AS YOU GIVE THE FIRST DOSE, ANDAsk HER TO SHOW YOU HOW SHE WILL DO IT). You will confirm that she understands by using checking questions.
   - You will teach the caregiver how to treat the skin pustules. She should do the treatment twice a day for 5 days. She will: wash hands, gently wash the pus and crusts with soap and water, dry the area, paint the skin with gentian violet (.5%), and then wash her hands again.
   - You will counsel her to follow-up for the local infection in 2 DAYS.
   - You will review the signs that the caregiver must watch for, and return immediately.
EXERCISE F
1. You will reassess by looking at the skin pustules. Decide if there are many or severe pustules. See if the redness and pus of the pustules is improved.
2. Tell Sashi’s caregiver that the infection is improving, but that she must complete the 5 days of antibiotic. She should also continue cleaning the skin and applying gentian violet on those days.

EXERCISES PART II

EXERCISE G
1. Exclusive breastfeeding is recommended until at least 6 months of age. The three points are:
   a. Exclusive: no other fluids or foods are given, only breastmilk
   b. On demand: the infant should breastfeed whenever he wants, day and night
   c. The infant should breastfeed at least 8 times in 24 hours
2. FALSE – the infant has a severe classification (RED) and requires urgent referral, so you will skip the feeding and low weight assessment.
3. Answers below:
   a. YES
   b. NO
   c. YES
   d. YES
   e. NO
   f. NO
   g. YES
4. Low birth weight is when a baby weighs less than 2.5 kg (2500 grams) at birth.
5. A very low birth weight baby weighs less than 1.5 kg (1500 grams) at birth.

EXERCISE H
Circle the signs of good attachment. Cross-out the signs of poor attachment:

- Chin away from breast
- More areola visible above than below mouth
- Chin touching breast
- Narrow mouth with lips pushed forward

- Mouth wide open
- Lower lip turned outward
- Equal amount areola visible below/above mouth
- Lower lip turned in

EXERCISE I
a. Not suckling at all
b. Suckling effectively
c. Not suckling effectively
EXERCISE J

<table>
<thead>
<tr>
<th>AGE</th>
<th>STATUS</th>
<th>What does the infant need today, if anything? How will you handle the case?</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 days</td>
<td>Received BCG</td>
<td>None, appointment for 6 weeks of age</td>
</tr>
<tr>
<td>7 weeks</td>
<td>Received DPT-1, HIB-1, OPV1, Hep B 1</td>
<td></td>
</tr>
<tr>
<td>4 weeks</td>
<td>Received BCG, OPV-0</td>
<td>None, give appointment for 6 weeks</td>
</tr>
<tr>
<td>8 weeks</td>
<td>Received BCG, OPV-0. Infant is being urgently referred today.</td>
<td>No vaccines now. Urgently transfer to hospital.</td>
</tr>
</tbody>
</table>

EXERCISE K

1. Are the following statements TRUE or FALSE?
   a. FALSE
   c. TRUE
   d. TRUE
   e. TRUE
   f. FALSE

2. Show Srilekha how to hold her infant:
   ✔ With the infant’s head and body in line
   ✔ With the infant approaching breast with nose opposite to the nipple
   ✔ With the infant held close to the caregiver’s body
   ✔ With the infant’s whole body supported, not just neck and shoulders

3. Show Yoonhee how to help her infant attach:
   ✔ Touch her infant’s lips with her nipple
   ✔ Wait until her infant’s mouth is opening wide
   ✔ Move her infant quickly onto her breast, aiming the infant’s lower lip well below the nipple

4. At least 8 times in 24 hours

5. Jaya should:
   ✔ Breastfeed more (on demand, at least 8 times in 24 hours)
   ✔ Stop the porridge and breastfeed exclusively – determine why she began giving porridge and what issues she is having with feeding

EXERCISE L

1. Steps that her caregiver should take to treat the skin pustules at home:
   a. Wash hands
   b. Gently wash off pus and crusts with soap and water
   c. Dry the area
   d. Paint with gentian violet
   e. Wash hands

2. Twice each day
3. The 3 main points to advise the caregiver about home care are:
   a. Food/Fluids: Breastfeed frequently, as often and for as long as the infant wants, day and night, during sickness and health
   b. When to return
   c. Make sure the young infant stays warm at all times
4. Return in 2 days for follow-up (to be sure the skin pustules are improving). Return immediately if Sashie is breastfeeding poorly, becomes sicker, develops a fever, breathing becomes fast or difficult, or if there is blood in her stool.