MODULE-4

INTEGRATED MANAGEMENT OF NEONATAL AND CHILDHOOD ILLNESS

Treat the Young Infant and Counsel the Mother

CONTENTS

INTRODUCTION

In the previous module, you learned to identify the treatment needed for sick young infants age up to 2 months. Treatment for sick young infants often begins at the clinic and needs to be continued at home. The chart *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* describes the treatments. Exceptions are the fluid plans for treating diarrhoea that is located on the *TREAT THE CHILD* chart. Plans A, B, and C on the *TREAT THE CHILD* chart are used for young infants as well as older infants and young children.

In this module you will use the chart to learn ***how to give*** each treatment. You will also learn ***how to teach the mother*** to continue giving treatment at home.

LEARNING OBJECTIVES

This module will describe and allow you to practice the following skills:

* Determining appropriate oral drugs and dosages for a sick young infant
* Giving oral antibiotics and teaching the mother how and when to give them at home
* Treating local infections (such as umbilical or skin infections, ear drainage and thrush), and teaching the mother how and when to give the treatments at home
* Checking a mother's understanding
* Giving drugs administered in the clinic only (intramuscular injections of ampicillin and gentamicin)
* Warming the young infant who has temperature less than 36.5^{o}C or feels cold to touch
* Preventing low blood sugar
* Treating different classifications of dehydration, and teaching the mother about extra fluid to give at home
* Teaching the mother to treat breast and nipple problems and correct positioning and attachment
* Immunizing infants

* For local bacterial infection, give amoxicillin orally, if amoxicillin not available give cotrimaxazole.

* Management of a sick young infant who needs referral but referral is not possible.

* Counselling the mother on exclusive breastfeeding, how to keep the young infant warm at home, provide home care and when to return to the doctor.

* Giving follow up care to sick young infants.

1.0 TREAT THE SICK YOUNG INFANT

Use the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart to select the appropriate drug and to determine the dose and schedule.

1.1 SELECT APPROPRIATE ORAL DRUGS AND DETERMINE THE DOSE AND SCHEDULE

Refer to the box on the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart for the recommended antibiotic for local bacterial infection. Then determine the dose based on the young infant's weight.

➢ Give an appropriate oral antibiotic

For local bacterial infection:

➢ Give an Appropriate Oral Antibiotic

For local bacterial infection:

➢ Give Oral AMOXYCILLIN OR COTRIMOXAZOLE

	AMOXYCILLIN **➢ Give three times daily for 5 days**		**COTRIMOXAZOLE** (trimethoprim + sulphamethoxazole) ➢ Give two times daily for 5 days	
AGE or WEIGHT	Tablet 250 mg	Syrup 125 mg in 5 ml	Adult Tablet single strength (80 mg trimethoprim + 400 mg sulphameth-oxazole)	Pediatric Tablet (20 mg trimethoprim +100 mg sulphamethoxazole)
Birth up to 1 month (< 3 kg)		1.25 ml		1/2*
1 month up to 2 months (3-4 kg)	1/4	2.5 ml	1/4	1

** Avoid cotrimoxazole in infants less than 1 month of age who are premature or jaundiced.*

TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER chart indicates the **schedule** for giving the antibiotic and the **correct dose** of the antibiotic to give to the young infant.

The **schedule** tells you ***how many days*** and ***how many times each day*** to give the antibiotic.

To determine the **correct dose** of the antibiotic:

* Refer to the column that lists the concentration of tablets or syrup available in your clinic.

* Choose the row for the infant's weight or age. The weight is better than the age when choosing the correct dose. The correct dose is listed at the intersection of the column and row.

Follow the steps on the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart for teaching a mother 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 breastmilk. Guide her as needed to give the first dose, and teach her the schedule. Watch the mother and ask checking questions to be sure she knows how to give the antibiotic.

Note: Avoid giving cotrimoxazole to a young infant less than 1 month of age who is premature or jaundiced. Give this infant amoxycillin instead.

1.2 USE GOOD COMMUNICATION SKILLS

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

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

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

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

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

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

} These skills are described below.

1.2.1 ADVISE THE MOTHER HOW TO TREAT HER INFANT AT HOME

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

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

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

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

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

* apply gentian violet paint,
* prepare ORS, or
* wick the ear dry.

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

* how to hold the infant still and apply gentian violet,
* a packet of ORS and how to mix the right amount of water with ORS, or
* how to hold the infant still and wick the ear dry.

LET HER PRACTICE: Ask the mother to do the task while you watch. For example, have the mother:

* apply gentian violet paint on the infant's umbilicus,
* mix ORS solution, or

* wick the infant's ear dry.

It may not be enough to ask the mother to describe how she will do the task at home.

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

WHEN TEACHING THE MOTHER:

* Use words that she understands.

* Use teaching aids that are familiar, such as common containers for mixing ORS solution.

* Give feedback when she practices. Praise what was done well and make corrections. Allow more practice, if needed.

* Encourage the mother to ask questions. Answer all questions.

1.2.2 CHECK THE MOTHER'S UNDERSTANDING

After you teach a mother how to treat her infant, you want to be sure that she understands how to give the treatment correctly. Checking questions find out what a mother has learned. An important communication skill is knowing how to ask good checking questions. A checking question must be phrased so that the mother answers more than "yes" or "no". Good checking questions require that she describe **why, how** or **when** she will give a treatment. Let us take the following example.

Doctor asks the mother " When will you give your baby his medicine?"

The mother answers " I will give him the medicine in the morning and night for the next 5 days!"

From her answer you can tell if she has understood you and learned what you taught her about the treatment. If she cannot answer correctly, give more information or clarify your instructions. For example, you taught a mother how to give an antibiotic. Then you ask:

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

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

"When will you give your infant the medicine?"

"How many tablets will you give each time?"

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

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

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

GOOD CHECKING QUESTIONS	POOR QUESTIONS
How will you prepare the ORS solution?	Do you remember how to mix the ORS?
How often should you breastfeed your infant?	Should you breastfeed your infant?
How much extra fluid will you give after each loose stool?	Do you know how to give extra fluids?
Why is it important for you to wash your hands?	Will you remember to wash your hands?

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

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

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

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

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

If you ask,

"When will you wick your infant's ear dry?"

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

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

If you ask,

"What container will you use to measure 1 litre of water for mixing ORS?"

The mother may answer that she does not have a 1-litre container at home.

Ask her what containers she does have at home. Show her how to measure 1 litre of water in her container. Explain how to mark the container at 1 litre with an appropriate tool or how to measure 1 litre using several smaller containers.

If you ask,

"How will you apply gentian violet paint on the infant's umbilicus at home?"

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

Convince her of the importance of the local treatment along with the oral drug. Make the explanation clear. She may have to explain the reason for applying gentian violet to other family members also.

WHEN CHECKING THE MOTHER'S UNDERSTANDING:

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

* Give the mother time to think and then answer.

* Praise the mother for correct answers.

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

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EXERCISE A

In this exercise you will review good communication skills. Answer the questions in the space provided.

1. Nurse Kanta must teach a mother to wick her infant's ear dry.

   First she explains how drying the ear will help the infant, and how to do it. Then she shows the mother how to make a wick and dry the infant's ear. Then, Nurse Kanta asks the mother to practice wicking the infant's ear while she observes and offers feedback. Before the mother and the infant leave the clinic, Nurse Kanta asks the mother several questions. She wants to make sure the mother understands why, how and when to give the treatment at home.

   a. What information did Nurse Kanta give the mother about the treatment?

   b. In the paragraph above, underline the sentence that describes how the nurse gave examples.

   c. What did the nurse do while the mother practiced?

2. Doctor Basaka must teach a mother to prepare ORS solution for her infant with diarrhoea. First he explains how to mix the ORS, and then he shows her how to do it. He asks the mother, "Do you understand?" The mother answers "yes". So Basaka gives her 2 ORS packets and says good-bye.

   a. What information did Basaka give the mother about the task?

   b. Did he show her an example?

   c. Did he ask her to practice?

   d. How did Basaka check the mother's understanding?

   e. Did Basaka check the mother's understanding correctly?

   f. How would you have checked the mother's understanding?

3. Nurse Anjali gives some oral antibiotics to a mother for her infant. Before she explains how to give them, Anjali asks the mother if she knows how to give her infant the medicine. The mother nods her head yes. So Anjali gives her the antibiotics and says good-bye.

   If a mother tells you that she already knows how to give a treatment, what should you do?

4. Which of the following is the best checking question after advice about increasing fluids during diarrhoea? *(Tick one.)*

   ___ a. Do you remember some good fluids to give your infant?
   ___ b. Will you be sure to give your infant extra fluid?
   ___ c. How much fluid will you give your infant?

5. The following questions can be answered "yes" or "no". Rewrite the questions as good checking questions.

   a. Do you remember when to give the antibiotic?

   b. Do you understand how much syrup to give your infant?

   c. Did the nurse explain to you how to apply the paint?

   d. Can you wick your infant's ears?

   e. Do you know how to get to the hospital?

When you finish this exercise, discuss your answers with a facilitator.

Your facilitator will lead a drill
to give you more practice asking checking questions.

1.3 TEACH THE MOTHER TO GIVE ORAL DRUGS AT HOME

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

- **Determine the appropriate antibiotics and dosage for the infant's age or weight.**
  Use the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart to determine the appropriate antibiotic and dosage to give the infant.

- **Tell the mother the reason for giving the drug to the infant.**

- **Demonstrate how to measure a dose.**
  Collect a container of the drug and check its expiry date. Do not use expired drugs. Count out the amount needed for the infant. Close the container.

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

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

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

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

  Show the mother how to measure the correct number of millilitres (ml) for one dose at home. Use the bottle cap or a common spoon, such as a spoon used to stir sugar into tea or coffee. Show her how to measure the correct dose with the spoon.

  One teaspoon (tsp) equals approximately 5.0 ml (see below).

MILLILITRES (ml)	TEASPOONS (tsp)
1.25 ml	¼ tsp
2.5 ml	½ tsp
5.0 ml	1 tsp
7.5 ml	1½ tsp
10.0 ml	2 tsp
15.ml	3 tsp

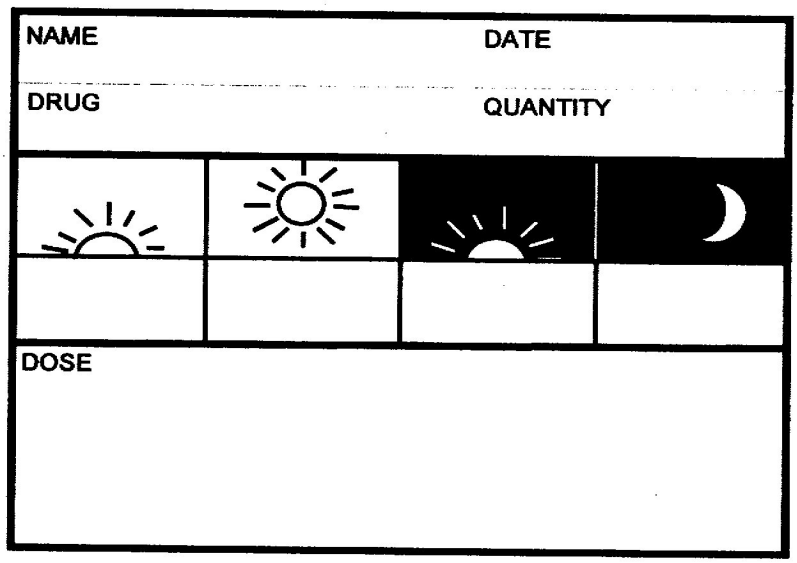
  Adjust the above amounts based on the common spoons in your area.

- **Watch the mother practice measuring a dose by herself.**
  Ask the mother to measure a dose by herself. If the dose is in tablet form, tell the mother to crush the tablet. Watch her as she practices. Tell her what she has done correctly. If she measured the dose incorrectly, show her again how to measure it.

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

- **Explain carefully how to give the drug, then label and package the drug.**
  Tell the mother how much of the drug to give her infant. Tell her how many times per day to give the dose. Tell her when to give it (such as early morning, lunch, dinner, before going to bed) and for how many days.

  Write the information on a drug label. This is an example:



To write information on a drug label:

a. Write the full name of the drug and the total amount of tablets or syrup to complete the course of treatment.

b. Write the correct dose for the patient to take (number of tablets or spoonfuls, that is, ½, 1, 1½...). Write when to give the dose (early morning, afternoon, evening, before going to bed).

c. Write the daily dose and schedule, such as

½ tablet twice daily for 5 days

Write the instructions clearly so that a literate person is able to read and understand them.

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

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

- **Explain that all the oral drug tablets or syrups must be used to finish the course of treatment, even if the infant gets better.**

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

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

- **Check the mother's understanding before she leaves the clinic.**
  Ask the mother checking questions, such as:
  "How much will you give each time?"
  "When will you give it?" "For how many days?"
  "How will you prepare this tablet?"
  "Which drug will you give 2 times per day?"

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

In some clinics, a drug dispenser has the task of teaching the mother to give treatment and checking the mother's understanding. If this is your situation, teach the skills you are learning here to that dispenser. Teach the Mother to Give Oral Drugs at Home. Give information, examples and practice, as needed. Check that the dispenser is doing this important task well. Ask mothers a few checking questions before they leave the clinic. You will know from their answers if the dispenser has taught them how to give the treatment correctly.

1.4 TEACH THE MOTHER TO TREAT LOCAL INFECTIONS AT HOME

This section of the module will teach you how to treat local infections. There are four types of local infection in a young infant that a mother can treat at home: an umbilicus which is red or draining pus, skin pustules, ear discharge or thrush.

You will also learn how to teach a mother to treat a local infection at home. When teaching a mother:

- **Explain to the mother what the treatment is and why it should be given.**
- **Describe the treatment steps listed in the appropriate box below.**
- **Watch the mother as she does the first treatment in the clinic.**
- **Tell her how often to do the treatment at home.**
- **Give mother a small bottle of gentian violet.**
- **Check the mother's understanding before she leaves the clinic.**

Some treatments for local infections cause discomfort. Infants often resist having their eyes, ears or mouth treated. Therefore, it is important to hold the infant still. This will prevent the infant from interfering with the treatment.

Tilt the infant's head back when treating mouth ulcers. Tilt the infant's head to the side when wicking the ear. Do ***not*** attempt to hold the infant still until immediately before treatment.

For umbilical or skin infection or thrush, the mother cleans the infected area and then applies gentian violet twice each day. 0.25% gentian violet must be used in the mouth.

To Treat Skin Pustules or Umbilical Infection

- Apply gentian violet paint twice daily.

The mother should:
- Wash hands.
- Gently wash off pus and crusts with soap and water.
- Dry the area.
- Paint with gentian violet 0.5%.
- Wash hands

To Treat Thrush (ulcers or white patches in mouth)

- Tell the mother to do the treatment twice daily.

The mother should:
- Wash hands.
- Wash mouth with clean soft cloth wrapped around the finger and wet with salt water.
- Paint the mouth with gentian violet 0.25%.
- Wash hands.

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

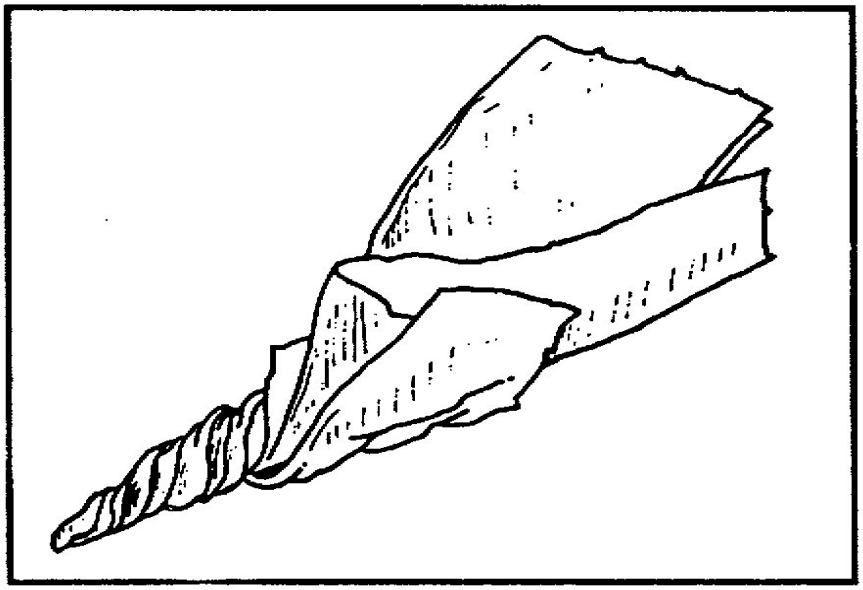
her checking questions to be sure that she knows to give the treatment twice daily and when to return.

If the mother will treat skin pustules or umbilical infection, give her a bottle of full strength (0.5%) gentian violet. If the mother will treat thrush, give her a bottle of half-strength (0.25%) gentian violet.

If the young infant has an ear discharge, dry the ear by wicking

Dry the Ear by Wicking

➢Dry the ear at least 3 times daily.
- Roll clean absorbent cloth or soft, strong tissue paper into a wick.
- Place the wick in the young infant's ear.
- Remove the wick when wet.
- Replace the wick with a clean one and repeat these steps until the ear is dry.



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

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

- Use clean, absorbent cotton cloth or soft strong tissue paper for making a wick.
- Do ***not*** use a cotton-tipped applicator, a stick or flimsy paper that will fall apart in the ear.
- Place the wick in the infant's ear until the wick is wet.
- Replace the wet wick with a clean one.
- Repeat these steps until the wick stays dry. Then the ear is dry.

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

* Wick the ear 3 times daily.

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

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

- **Ask checking questions**, such as:

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

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

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

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

1.5 GIVE THESE TREATMENTS IN THE CLINIC ONLY

You may have to give one or more of the following treatments in the clinic before the young infant is sent to the hospital

* Intramuscular antibiotics
* Breast milk or sugar water
* Warm the sick young infant with low body temperature by skin to skin contact and keep the young infant warm on the way to the hospital

When giving intramuscular antibiotics:

- **Explain to the mother why the drug is given.**
- **Determine the dose according to the gentamicin and ampicillin tables.**
- **Use a sterile needle and sterile syringe. Measure the dose accurately.**
- **Give the drug as intramuscular injection.**
- **If child cannot be referred, follow the instructions given in the section WHERE REFERRAL IS NOT POSSIBLE.**

1.5.1 GIVE FIRST DOSE OF INTRAMUSCULAR ANTIBIOTICS

Give the first dose of two intramuscular antibiotics, ampicillin and gentamicin, to young infants with POSSIBLE SERIOUS BACTERIAL INFECTION. Young infants with POSSIBLE SERIOUS BACTERIAL INFECTION are often infected with a broader range of bacteria than older infants and children. The combination of gentamicin and ampicillin is effective against this broader range of bacteria.

➢ ***Give First Dose of Intramuscular Antibiotics***

➢ Give first dose of both ampicillin and gentamicin intramuscularly.

	GENTAMICIN Dose: 5 mg per kg			**AMPICILLIN** Dose: 100 mg per kg (Vial of 500 mg mixed with 2.1 ml of sterile water for injection to give 500mg/2.5 ml or 200mg/1 ml)
WEIGHT	Undiluted 2 ml vial containing 20 mg = 2 ml at 10 mg/ml	OR	Add 6 ml sterile water to 2 ml containing 80 mg* = 8 ml at 10 mg/ml	
1 kg	0.5 ml*			0.5 ml
2 kg	1.0 ml*			1.0 ml
3 kg	1.5 ml*			1.5 ml
4 kg	2.0 ml*			2.0 ml
5 kg	2.5 ml*			2.5 ml

**Avoid using undiluted 40 mg/ml gentamicin.*

➢ Referral is the best option for a young infant classification with POSSIBLE SERIOUS BACTERIAL INFECTION. If referral is not possible, give oral amoxycillin every 8 hours and intramuscular gentamicin once daily.

Using 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, which is closest to the infant's weight.

Using Ampicillin

Read the vial of ampicillin to determine its strength. Ampicillin will need to be mixed with sterile water. Mix a vial of 500mg of powder in 2.1ml of sterile water to give 200mg/ml ampicillin.

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 *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart will not be correct. In that situation, carefully follow the manufacturer's directions for adding sterile water and recalculate the doses.

If an infant with POSSIBLE SERIOUS BACTERIAL INFECTION cannot go to a hospital, it is possible to continue treatment using these intramuscular antibiotics. Instructions are in the section *Where Referral is Not Possible*.

1.5.2 TREAT THE YOUNG INFANT TO PREVENT LOW BLOOD SUGAR

Preventing low blood sugar is an ***urgent pre-referral treatment*** for children with POSSIBLE SERIOUS BACTERIAL INFECTION, SEVERE JAUNDICE OR SEVERE MALNUTRITION.

Low blood sugar occurs in serious infections such as septicaemia or meningitis. It also occurs when an infant has not been able to feed for many hours or has low body temperature. It is dangerous because it can cause brain damage.

Giving some breastmilk, dairy/locally appropriate animal milk, or sugar water provides some glucose to treat and prevent low blood sugar. This treatment is given once, before the infant is referred to the hospital.

- ***Treat the Young Infant to Prevent Low Blood Sugar***
  - ***If the child is able to breastfeed:***

    Ask the mother to breastfeed the child.
  - ***If the child is not able to breastfeed but is able to swallow:***

    Give 20-50 ml (10 ml/kg) expressed breastmilk or locally appropriate animal milk (with added sugar) before departure. If neither of these is available, give 20-50 ml (10 ml/kg) sugar water.

    To make sugar water: Dissolve 4 level teaspoons of sugar (20 grams) in a 200-ml cup of clean water.
  - ***If the child is not able to swallow:***

    Give 20-50 ml (10 ml/kg) of expressed breastmilk or locally appropriate animal milk (with added sugar) or sugar water by nasogastric tube.

If the child cannot swallow and you know how to use a nasogastric (NG) tube, give him 10 ml/kg of milk (expressed breastmilk or dairy/locally appropriate animal milk) or sugar water by NG tube.

1.5.3 WARM THE SICK YOUNG INFANT WITH LOW BODY TEMPERATURE

It is important to maintain the temperature of the newborn between 36.5 and 37.4^{o}C. Low temperature in the newborn has an adverse impact on the sick newborn and increases the risk of death.

The best way to maintain temperature or rewarm a baby with low temperature at the primary care level is by placing the baby in skin-to-skin contact with the mother (or any adult). The adult body will transfer heat to the newborn.

➢ *Warm the young infant using Skin to Skin contact (Kangaroo Mother Care)*

- Provide privacy to the mother. If mother is not available, Skin to Skin contact may be provided by the father or any other adult.
- Request the mother to sit or recline comfortably.
- Undress the baby gently, except for cap, nappy and socks.
- Place the baby prone on mother's chest in an upright and extended posture, between her breasts, in Skin to Skin contact; turn baby's head to one side to keep airways clear .
- Cover the baby with mother's blouse, 'pallu' or gown; wrap the baby-mother duo with an added blanket or shawl.
- Breastfeed the baby frequently.
- If possible, warm the room (>25^{o}C) with a heating device.

- **REASSESS after 1 hour:**
  - Look, listen and feel for signs of Possible Serious Bacterial Infection and
  - Measure axillary temperature by placing the thermometer in the axilla for 5 minutes (or feel for low body temperature).

- ***If any signs of Possible Serious Bacterial Infection OR temperature still below 36.5^{o}C (or feels cold to touch):***
  - ***Refer URGENTLY to hospital after giving pre-referral treatments for Possible Serious Bacterial Infection.***

- If no sign of Possible Serious Bacterial Infection AND temperature 36.5^{o}C or more (or is not cold to touch):
  - Advise how to keep the infant warm at home.
  - Advise mother to give home care.
  - Advise mother when to return immediately.

- Skin to Skin contact is the most practical, preferred method of warming a hypothermic infant in a primary health care facility. If not possible:
  - Clothe the baby in 3-4 layers, cover head with a cap and body with a blanket or a shawl; hold baby close to caregiver's body, OR
  - Place the baby under overhead radiant warmer, if available.

(*Avoid direct heat from a room heater and use of hot water rubber bottle or hot brick to warm the baby because of danger of accidental burns*).

Provide privacy to the mother and request her to sit or recline comfortably. Ask her to undress the young infant gently, except for cap, nappy and socks. Place the young infant prone on mother's chest in an upright and extended posture, between her breasts, in skin to skin contact. Turn young infant's head to one side to keep airways clear. Cover the young infant with mother's blouse, 'pallu' or gown and then wrap the baby-mother duo with an added blanket or shawl. Ask the mother to breastfeed the baby frequently. If possible, warm the room (>25^{o}C) with a heating device like an electrical room heater or *angeeethi*.

If mother is not available, skin to skin contact may be provided by the father or any other adult. Skin to skin contact is the most practical, preferred method of warming a hypothermic young infant in a primary health care facility. If 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 to a temperature of 28-30^{o}C. Alternatively, if an overhead radiant warmer is available, place the baby under the warmer.

CAUTION: Avoid direct heat from a room heater and use of hot water rubber bottle or hot brick to warm the baby because of danger of accidental burns. Do not keep an angeethi in a closed room, particularly if the coal is not fully red and if it is still emitting smoke.

Skin to skin contact can also be used to keep a baby warm during transport.

It is important to monitor and REASSESS sick young infants with low body temperature who are being provided skin-to-skin contact for rewarming during the first hour. Persistent low body temperature may be the only sign of a POSSIBLE SERIOUS BACTERIAL INFECTION in a young infant.

After 1 hour of rewarming the infant should be ASSESSED for temperature by measuring axillary temperature (or feeling the body for low temperature) and also assessed for signs of POSSIBLE BACTERIAL INFECTION.

If temperature is still below 36.5^{o}C or the young infant has any signs of POSSIBLE SERIOUS BACTERIAL INFECTION *refer urgently* to hospital.

If temperature is more than 36.5^{o}C and no signs of POSSIBLE SERIOUS BACTERIAL INFECTION, advise the mother how to keep the baby warm at home, give home care and when to return immediately.

1.6 TO TREAT DIARRHOEA, SEE '*TREAT THE CHILD*' CHART (2 months upto 5 years)

The *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart refers you to the *TREAT THE CHILD* chart for instructions on treating diarrhoea. You will learn Plan A to treat diarrhoea at home and Plans B and C to rehydrate an older infant or young child with diarrhoea later in the course. Young infants with diarrhoea are treated in a similar manner and you will practice treating some young infants with diarrhoea after learning to treat older infants and young children, later in the course. However, there are some special points to remember about giving these treatments to a young infant.

Plan A: Treat Diarrhoea at Home

All infants and children who have diarrhoea need extra fluid and continued feeding to prevent dehydration and give nourishment. The best way to give a young infant extra fluid and to continue feeding is to breastfeed more often and for longer at each breastfeed. Additional fluids that may be given to a young infant are ORS solution and clean water. In all young infants it is important **not** to introduce a food-based fluid.

If a young infant will be given ORS solution at home, you will show the mother how much ORS to give the infant after each loose stool. She should first offer a breastfeed, then give the ORS solution. Remind the mother to stop giving ORS solution after the diarrhoea has stopped.

Plan B: Treat Some Dehydration

A young infant who has SOME DEHYDRATION needs ORS solution as described in Plan B. During the first 4 hours of rehydration, encourage the mother to pause to breastfeed the infant whenever the infant wants, then resume giving ORS. Give a young infant who does not breastfeed an additional 100-200 ml clean water during this period.

***

EXERCISE B

In this exercise you will identify all the treatments needed, and specify the appropriate antibiotics and doses for infants. Refer to the *ASSESS AND CLASSIFY THE SICK YOUNG INFANT* chart as needed.

Take out the Young Infant Recording Forms that you used in Exercises B and E of module *ASSESS AND CLASSIFY THE SICK YOUNG INFANT UPTO 2 MONTHS*.

For each case:

1. Review the infant's assessment results and classifications which you have written on the recording form, to remind you of the infant's condition. Note that one of the young infants is premature.

2. Write the pre-referral treatments needed for the young infants who need to be urgently referred on the back of the recording form.

3. If the infant needs an antibiotic, also write the name of the antibiotic that should be given and the dose and schedule.

When you have completed this exercise, please discuss your answers with a facilitator.

1.7 TEACH CORRECT POSITIONING AND ATTACHMENT FOR BREASTFEEDING

Reasons for Poor Attachment and Ineffective Suckling

There are several reasons that an infant may be poorly attached or not able to suckle effectively. He may have had bottle feeds, especially in the first few days after delivery. His mother may be inexperienced. She may have had some difficulty and nobody to help or advise her. For example, perhaps the infant was small and weak, the mother's nipples were flat or there was a delay starting to breastfeed.

The infant may be poorly positioned at the breast. Positioning is important because poor positioning often results in poor attachment, especially in younger infants. If the infant is positioned well, the attachment is likely to be good.

Good positioning is recognized by the following signs:
- Infant's neck is straight or bent slightly back,
- Infant's body is turned towards the mother,
- Infant's body is close to the mother, and
- Infant's whole body is supported.

Poor positioning is recognized by any of the following signs:
- Infant's neck is twisted or bent forward,
- Infant's body is turned away from mother,
- Infant's body is not close to mother, or
- Only the infant's head and neck are supported

Baby's body close, facing breast

Baby's body away from mother, neck twisted

Improving Positioning and Attachment

If in your assessment of breastfeeding you found any difficulty with attachment or suckling, help the mother position and attach her infant better. Make sure that the mother 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 and Attachment for Breastfeeding*

- ➢ Show the mother how to hold her infant
  - with the infant's head and body straight
  - facing her breast, with infant's nose opposite her nipple
  - with infant's body close to her body
  - supporting infant's whole body, 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.
- ➢ If still not suckling effectively, ask the mother to express breast milk and feed with a cup and spoon in the clinic. To express breast milk:
  - · The mother should wash hands, sit comfortably and hold a cup or 'katori' under the nipple
  - · Place finger and thumb each side of areola and press inwards towards chest wall (Fig a)
  - · Do not squeeze the nipple
  - · Press behind the nipple and areola between finger and thumb to empty milk from inside the areola (Fig b); press and release repeatedly
  - · Repeat the process from all sides of areola to empty breast completely (Fig c)
  - · Express one breast for at least 3-5 minutes until flow stops; then express from the other side
- ➢ If able to take with a cup and spoon advise mother to keep breastfeeding the young infant and at the end of each feed express breast milk and feed with a cup and spoon.
- ➢ If not able to feed with a cup and spoon, refer to hospital.

Always observe a mother breastfeeding before you help her, so that you understand her situation clearly. Do not rush to make her do something different. If you see that the mother needs help, first say something encouraging, like:

"She really wants your breastmilk, doesn't she?"

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 baby took a larger mouthful of breast. Would you like me to show you how?"

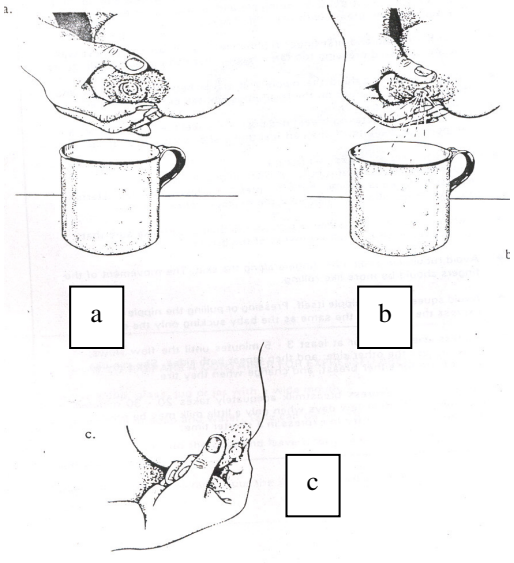
If she agrees, you can start to help her.

As you show the mother 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 mother position and attach the infant herself. Then look for signs of good attachment and effective suckling again. If the attachment or suckling is not good, ask the mother to remove the infant from her breast and to try again. When the infant is suckling well, explain to the mother that it is important to breastfeed long enough at each feed. She should not stop the breastfeeding before the infant wants to.

Teach the mother to express breast milk

Expression of breast milk is usually required for feeding infants who do not suck effectively but are able to swallow effectively (as in the case of low birth weight babies) or when there are breast or nipple problems. The expressed breast milk is usually fed with a cup and spoon.

The mother is made to sit comfortably and hold the cup near her breast with one hand. With the other hand, the mother is asked to place her thumb above and her first finger below the nipple and areola. Then she is asked to push her thumb and finger slightly



inwards towards the chest wall and then press the nipple between the thumb and finger. She must repeatedly press and release. This repeated action would allow to milk to drip out. She must repeat this action also from the sides of the areola to make sure that milk is expressed from all quadrants.

Expression must be continued for 3-5 minutes until the milk flow slows down. The mother must perform the expression form both breasts and it may take her about 15-20 minutes to express both breasts completely.

Counselling about Other Feeding Problems

- If a mother is breastfeeding her infant less than 8 times in 24 hours, advise her to increase the frequency of breastfeeding. Breastfeed as often and for as long as the infant wants, day and night.

- If the infant receives other foods or drinks, counsel the mother 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.

- Advise mothers not to discard colostrum.

- If mothers complain of inadequate milk output, encourage mothers to increase breast-feeding frequency, drink plenty of fluids, eat a normal diet. If the infant is passing urine 5-6 times a day and weight for age is normal, assure mothers of adequacy of their lactation.

* If the mother does not breastfeed at all, a breastfeeding counsellor may be able to help her to overcome difficulties and begin breastfeeding again.

Advise a mother who does not breastfeed about choosing and correctly preparing dairy/locally appropriate animal milk (discussed later in this module). Also advise her to feed the young infant with a cup, and not from a feeding bottle.

1.8 TEACH THE MOTHER TO TREAT NIPPLE AND BREAST PROBLEMS

During the first few weeks after birth, breast and nipple problems can be important causes of feeding problems and poor growth in young infants. Some of the common problems are flat or inverted nipples, sore nipples or breast abscess in the mother.

Flat or inverted nipples: If the mother has flat or inverted nipples, the baby can have difficulty in attaching to the breast, which can result in decreased lactation and poor weight gain in the infant. The nipple should be everted with fingers before the infant is put to breast during a feed. This will help the infant to attach well onto the breast. After a few days the nipples will remain everted.

➢ ***Teach the mother to treat breast and nipple problems***

- If the nipple is flat or inverted, evert the nipple several times with fingers before each feed and put the baby to the breast.
- If nipple is sore, apply breast milk for soothing effect and ensure correct positioning and attachment of the baby. If mother continues to have discomfort, feed expressed breast milk with katori and spoon.
- If breasts are engorged, let the baby continue to suck if possible. If the baby cannot suckle effectively, help the mother to express milk and then put the young infant to the breast. Putting a warm compress on the breast may help.
- If breast abscess, advise mother to feed from the other breast and refer to a surgeon. If the young infant wants more milk, feed undiluted animal milk with added sugar by cup and spoon.

Sore nipples: Sore nipples are almost always due to faulty attachment of the infant onto the mother's breast. The mother should be helped to ensure that attachment and position are correct. To alleviate the discomfort due to soreness, the mother should be advised to apply breast milk on the affected nipple. If the baby's sucking causes a lot of discomfort to the mother inspite of correct positioning, the mother should be advised to express the breast milk and feed it with a cup and spoon to the infant, till she is able once again able to breast feed the infant without much discomfort (this would usually take about 1-2 days).

Breast abscess: Breast abscess is often due to breast engorgement and rarely due to primary infection of the breast. The mother should be encouraged to feed from the unaffected breast and referred to a surgeon for treatment of the abscess. If the amount of milk from a single breast is inadequate, then undiluted animal milk with added sugar can be fed with cup and spoon.

Follow-up any young infant with a feeding problem in 2 days. This is especially important if you are recommending a significant change in the way the infant is fed.

***

EXERCISE C

Part 1 - Video

You will watch a video demonstration of the steps to help a mother improve her baby's positioning and attachment for breastfeeding.

Part 2 - Photographs

In this exercise you will study photographs to practice recognizing signs of good or poor positioning and attachment for breastfeeding. When everyone is ready, there will be a group discussion of each of the photographs. You will discuss what the doctor could do to help the mother improve the positioning and attachment for breastfeeding.

1. Study photographs numbered 24 through 26 of young infants at the breast. Look for each of the signs of good positioning. Compare your observations about each photograph with the answers in the chart below to help you learn what good or poor positioning looks like.

2. Now study photographs 27 through 29. In these photographs, look for each of the signs of good positioning and mark on the chart whether each is present. Also decide if the attachment is good.

Photo	Signs of Good Positioning				Comments on Attachment
	Infant's Head and Body Straight	Head and Body Facing Breast	Infant's Body Close to Mother's	Supporting Infant's Whole Body	
24	yes	yes	yes	yes	
25	yes	yes	yes	yes	
26	no - neck turned so not straight with body	no	no - turned away from mother's body	no	Not well attached: mouth not wide open, lower lip not turned out, areola equal above and below
27					
28					
29					

Tell a facilitator when you have completed this exercise.
When everyone is ready, there will be a group discussion.

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1.9 IMMUNIZE EVERY SICK YOUNG INFANT, AS NEEDED

Administer any immunizations that the young infant needs today. Tell the mother when to bring the infant for the next immunizations.

This module assumes that you have already been trained to give immunizations. You can receive more detailed descriptions of how to give immunizations from the Expanded Programme on Immunizations, World Health Organization. The course, *Immunization in Practice: A Guide for Doctors Who Give Vaccines*, trains doctors to give immunizations. If you immunize infants with the appropriate vaccine at the appropriate time, you prevent measles, polio, diphtheria, pertussis, tetanus, hepatitis B and tuberculosis. Check the immunization status of every infant you treat at your clinic. Immunize, as needed.

Review the following points about preparing and giving immunizations:

* If an infant is well enough to go home, give him any immunizations he needs before he leaves the clinic.

* Use a sterile needle and a sterile syringe for each injection. This prevents transmission of HIV and the Hepatitis B virus.

* If only one infant at the clinic needs an immunization, open a vial of the vaccine and give him the needed immunization.

* Discard opened vials of BCG, OPV and DPT vaccines at the end of each immunization session.

* Do ***not*** give OPV 0 to an infant who is more than 14 days old.

* Record all immunizations on the infant's immunization card. Record the date you give each dose. Also keep a record of the infant's immunizations in the immunization register or the child's chart, depending on what you use at your clinic.

Tell the mother which immunizations her infant will receive today. Tell her about the possible side effects. Below is a brief description of side effects from each vaccine.

* **BCG**: A small red tender swelling appears at the place of the immunization after about 2 weeks. Sometimes it ulcerates and heals by itself leaving a small scar.

  Tell the mother a small ulcer will occur and to leave the ulcer uncovered. If necessary, cover it with a dry dressing only.

* **OPV**: No side effects.

* **DPT**: Fever, irritability and soreness are possible side effects of DPT. They are usually not serious and need no special treatment. Fever means that the vaccine is working.

  Tell the mother that if the child feels very hot or is in pain, she should give paracetamol (15 mg/kg/dose). She should ***not*** wrap the child up in more clothes than usual. She should ***not*** give hot fomentation for pain.

* **Hepatitis B**: No side effects.

  Tell the mother to give paracetamol if the fever is high

2.0 WHERE REFERRAL IS NOT POSSIBLE

The best possible treatment for a young infant with severe illness is usually at a hospital. Sometimes referral is not possible or advisable. Distances to hospital might be too far; the hospital may not have adequate equipment or staff to care for the young infant or transportation may not be available. Sometimes the family may refuse to take the young infant to hospital inspite of your efforts to explain the need for it.

If referral is not possible, you should do whatever you can to help care for the child. Although only well equipped hospital and trained staff can provide optimal care for a young infant with a severe illness, the following guidelines may reduce mortality in infants who have a severe disease and where referral is not possible.

This chapter describes treatment to be given for specific severe disease classification when the sick young infant cannot be referred. This chapter is divided into 2 parts: "Essential Care" and "Treatment Instructions - Recommendations on How to give Specific Treatment for Severely Ill Young Infants".

To use this chapter, first find the young infant's classifications and note the essential care required. Then refer to the boxes on *TREAT THE YOUNG INFANT* chart. Remember that you must also give treatment for the non-severe classifications that you identified. These treatments should also be marked on the sick young infant recording form.

This chapter will cover treatment for the following severe illness classifications:

- POSSIBLE SERIOUS BACTERIAL INFECTION
- SEVERE DEHYDRATION
- SOME DEHYDRATION WITH LOW WEIGHT FOR AGE
- SEVERE PERSISTENT DIARRHOEA
- SEVERE DYSENTERY
- SEVERE MALNUTRITION

2.1 ESSENTIAL CARE

2.1.1 Essential Care for POSSIBLE SERIOUS BACTERIAL INFECTION

This young infant may have sepsis, pneumonia or meningitis.

1. Give intramuscular ampicillin (or oral amoxycillin) and intramuscular gentamicin

If meningitis is suspected (based on bulging fontanel, lethargic or unconscious or convulsions) give antibiotics for total of 14 days.

If meningitis is not suspected, treat for at least 5 days. Continue the treatment until the infant has been well for at least 3 days. (Different syringes for ampicillin and gentamicin)

Ampicillin and gentamicin should not be mixed in the same syringe.

If it is not possible to give IM ampicillin 2-4 times a day, give oral amoxycillin from the first day itself if the young infant is able to accept orally. If you are able to give ampicillin, substitute IM ampicillin with oral amoxycillin when the infant's condition has improved. Continue to give IM gentamicin until the minimum treatment has been given.

If there is no response to the treatment after 48 hours, or if the infant's condition deteriorates, consider REFERRAL. If **referral is still not possible** consider using IM cefotaxime (100 mg/kg/dose 12 hourly) or ceftriaxone (50mg/kg/dose 12 hourly).

2. **Keep the young infant warm** as you have already learnt earlier in this module.

3. **Manage fluids Carefully**

   The mother should breastfeed the infant frequently. If the infant has difficulty breathing or is too sick to suckle, help the mother express breastmilk. Feed the expressed breastmilk to the infant by cup and spoon (if able to swallow) or by nasogastric tube 8 times per day. Give 15 ml of breastmilk per kilogram of body weight at each feed. Give a total of 120 ml/kg/day.

   If the mother is not able to express breastmilk, give undiluted cow's milk with added sugar.

4. **Treat the Young infant to Prevent Low Blood Sugar** as you have already learnt earlier in this module.

2.1.2 Essential Care for SEVERE DEHYDRATION

1. **If you can give intravenous (iv) treatment**

   If you can give IV treatment and you have acceptable solutions such as Ringer's Lactate or Normal Saline, give the solution IV to the severely dehydrated young infant.

   The section below gives Plan C for IV rehydrating of the young infant.

- Start IV fluids immediately. While the drip is being set up, give ORS solution if the young infant can drink. Give 100 ml/kg of Ringer's lactate solution (or if not available, normal saline) divided as follows:

First, give 30 ml/kg in:	Then, give 70 ml/kg in:
1 hour *(repeat again if the radial pulse is still weak or absent)*	5 hours

- **REASSESS THE INFANT EVERY 15-30 MINUTES UNTIL A STRONG RADIAL PULSE IS PRESENT. THEREAFTER, REASSESS THE INFANT BY SKIN PINCH AND LEVEL OF CONSCIOUSNESS ATLEAST EVERY 1-HOUR.**

- Also give ORS (about 5 ml/k/hour) as soon as the infant can drink: usually after 3-4 hours.

- Reassess the infant after 6 hours. Classify dehydration. Then choose the appropriate plan (A,B, or C) to continue treatment.

2. If you can use a Nasogastric (NG) tube

If you cannot give IV treatment at your clinic or there is no nearby hospital offering IV treatment and you are trained to use an NG tube, rehydrate the young infant by giving ORS solution with an NG tube.

The section below gives Plan C for rehydrating a young infant by NG tube.

- Start rehydration by nasogastric tube (NG) with ORS solution: Give 20 ml/kg/hour for 6 hours (total of 120 ml/kg)

- **REASSESS THE INFANT EVERY 1-2 HOURS:**
  - If there is repeated vomiting or increasing abdominal distention, give the fluid more slowly
  - If hydration status is not improving after 3 hours, the infant requires to be started on IV treatment

- Reassess the infant after 6 hours. Classify dehydration, Then choose the appropriate plan (A, B or C) to continue treatment

3. Keep the young infant warm

4. Give intramuscular ampicillin (or oral amoxycillin) and intramuscular gentamicin

2.1.3 Essential Care for SOME DEHYDRATION WITH LOW WEIGHT FOR AGE

1. Treat dehydration

Give fluids according to Plan - B.

2. Give intramuscular ampicillin (or oral amoxycillin) and intramuscular gentamicin

3. Keep the young infant warm

2.1.4 Essential Care for SEVERE PERSISTENT DIARRHEA

1. Treat dehydration

Give fluids according to diarrhoea classification and choose appropriate plan - A, B or C.

2. Examine every infant for non-intestinal infections.

3. Give antibiotics

If the young infant has a classification of POSSIBLE SERIOUS BACTERIAL INFECTION or DEHYDRATION or LOW WEIGHT, give IM Ampicillin and IM Gentamicin.

4. Feeding.

Careful attention to feeding is essential for all young infants with persistent diarrhea

- Encourage exclusive breast-feeding. Help mothers who are not exclusively breast feeding to do so.
- If the young infant is not breastfeeding, give a preparation that is low in lactose, such as yoghurt or a suitable low lactose formula. Use a cup or spoon for feeding.
- Give zinc 10mg elemental zinc/day for 14 days

2.1.5 Essential Care for SEVERE DYSENTERY

In all young infants, examine for surgical causes for blood in stool (e.g. necrotizing enterocolitis or intussusception). Refer immediately if surgical cause suspected.

1. **Treat dehydration**

   Give fluids according to diarrhoea classification and choose appropriate plan- A, B or C.

2. **Give antibiotics**

   If the young infant does not have the classification POSSIBLE SERIOUS BACTERAL INFECTION or SEVERE MALNUTRITION, or DEHYDRATION or LOW WEIGHT, give oral cotrimoxazole. In young infants who are younger than 1 month, premature or jaundiced, use oral cefixime (5 mg/kg/dose twice a day) or nalidixic acid (15 mg/kg per dose, three times a day) or norfloxacin (10 mg/kg/dose, twice a day) instead.

   In young infants with POSSIBLE SERIOUS BACTERAL INFECTION or SEVERE MALNUTRITION or DEHYDRATION or LOW WEIGHT, give IM Ampicillin and IM Gentamicin.

   If there is no response in 2 days, REFER immediately.

3. **Treat the Young infant to Prevent Low Blood Sugar**

4. **Keep the young infant warm**

2.1.6 Essential Care for SEVERE MALNUTRITION

1. **Give oral amoxycillin and im gentamicin**

   Treat for at least 5 days. Continue the treatment until the infant has been well for at least 3 days.

2. **FEEDING**

   In young infants who can breast feed, the mothers must be encouraged to breast feed as frequently as possible.

   If the infant is not suckling effectively, give expressed breast milk by cup and spoon or nasogastric tube. If the infant is <7 days, start with 60 ml/kg/day on first day given 2-3 hourly. The feeds should be increased by 20 ml/kg each day till a maximum of 150 ml/kg/day is reached. For infants older than 7 days, give expressed breastmilk (a total of 150 ml/kg/day) at 2-3 hourly interval.

   If the mother is not able to express breastmilk, prepare a formula or give undiluted cow's milk with added sugar.

3. Keep the young infant warm

2.2 TREATMENT INSTRUCTIONS- RECOMMENDATIONS ON HOW TO GIVE SPECIFIC TREATMENT FOR SEVERELY ILL YOUNG INFANTS WHO CANNOT BE REFERRED

Ampicillin –

The first choice is IM Ampicillin. Give IM Ampicillin (100 mg/kg/dose) twice a day if the young infant is less than 7 days of age, and 2-3 times a day if older. If you are unable to give IM ampicillin, give oral amoxycillin.

Gentamicin –

Give IM gentamicin once a day.

➢ *Give Intramuscular Antibiotics*

➢Give first dose of both ampicillin and gentamicin intramuscularly.

	GENTAMICIN Dose: 5 mg per kg			**AMPICILLIN** Dose: 100 mg per kg (Vial of 500 mg mixed with 2.1 ml of sterile water for injection to give 500mg/2.5 ml or 200mg/1 ml)
WEIGHT	Undiluted 2 ml vial containing 20 mg = 2 ml at 10 mg/ml	OR	Add 6 ml sterile water to 2 ml containing 80 mg* = 8 ml at 10 mg/ml	
1 kg	0.5 ml*			0.5 ml
2 kg	1.0 ml*			1.0 ml
3 kg	1.5 ml*			1.5 ml
4 kg	2.0 ml*			2.0 ml
5 kg	2.5 ml*			2.5 ml

**Avoid using undiluted 40 mg/ml gentamicin.*

➢ Referral is the best option for a young infant classification with POSSIBLE SERIOUS BACTERIAL INFECTION. If referral is not possible, give oral amoxycillin every 8 hours and intramuscular gentamicin once daily.

Diazepam (anticonvulsant)

1. Give diazepam per rectally. Use a plastic syringe (the smallest available) without a needle. Put the diazepam in the syringe. Gently insert the syringe into the rectum. Inject the drug and keep the buttocks squeezed tight to prevent loss of the drug.
2. Dose of diazepam – 0.25 ml (1.25 mg)
3. In 10 minutes, if convulsions continue, give diazepam again.

Treat to prevent low blood sugar

Follow recommendations on TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER CHART

Keep young infant warm

Follow recommendations on TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER CHART

EXERCISE D

Manisha is 3 weeks old and weighs 2.5 kg. She became sick 2 days ago. She was not feeding well and was having diarrhoea.

Manisha's mother brought her to the Primary Health Centre where the doctor examined her. She has not had convulsions. She does not have fast breathing, severe chest indrawing, nasal flaring or grunting. She does not have a bulging fontanelle. Her temperature is 35.7^{o}C. She is lethargic and her movements are less than normal. She does not have jaundice. Her skin and umbilicus are normal and her ear is not draining pus.

Manisha does not have dehydration. She has had diarrhoea for 2 days and there is no blood in the stool. Manisha is not accepting orally well. The mother usually gives her diluted milk with a feeding bottle in addition to breastfeeding. Since yesterday, the young infant only takes some breast milk. The doctor did not assess breastfeeding. She has low weight for age.

The doctor classifies Manisha as POSSIBLE SERIOUS BACTERIAL INFECTION, DIARRHOEA WITH NO DEHYDRATION and LOW WEIGHT FOR AGE.

The nearest hospital is 20 km away. Her husband is away and she must take care of her other two children. The mother says she has no money to pay for her travel and food at the hospital. She has had a bad experience at the hospital where one of her children died.

Manisha cannot be referred. She can come to the Primary Health Centre twice a day. One of the nurses in the PHC is willing to care for Manisha in the evening. The doctor decides that it is possible to give injections every 8 hours. He will give the first injection in the morning (9 am) and the second at 4 pm at the PHC. The third injection will be given to Manisha in the late evening when the nurse visits Manisha at her home.

List the treatments that Manisha should get and the doses of the drugs:

3.0 COUNSEL THE MOTHER

After providing treatment to the sick young infant for any illness (s)he might have, you will need to counsel many mothers for feeding problems.

3.1 FEEDING RECOMMENDATIONS

This section of the module will explain the feeding recommendations for the young infant. The recommendations are listed in columns for 4 age groups. You need to understand all of the feeding recommendations, but you will not need to explain them all to any one mother. You will first ask questions to find out how her young infant is already being fed. Then you will give **only the advice that is needed.**

These feeding recommendations are appropriate both when the infant is sick and when the infant is healthy. Sick child visits are a good opportunity to counsel the mother on how to feed the young infant both during illness and when the young infant is well.

The best way to feed a child from birth up to 6 months of age is to breastfeed exclusively. Exclusive breastfeeding means that the child takes only breastmilk and no additional food, water, or other fluids (with the exception of medicines and vitamins, if needed). *Note: If other fluids and foods are already being given, counselling is needed.*

Up to 6 Months of Age

- Breastfeed as often as the child wants, day and night, at least 8 times in 24 hours.
- Do not give any other foods or fluids not even water

Remember:
- Continue breastfeeding if the child is sick

Breastfeed children at this age as often as they want, day and night. This will be at least 8 times in 24 hours.

The advantages of breastfeeding are:

Breastmilk contains exactly the nutrients needed by an infant. It contains: Protein, Fat, Lactose, Vitamins A and C, Iron

These nutrients are more easily absorbed from breastmilk than from other milk. Breastmilk also contains essential fatty acids needed for the infant's growing brain, eyes, and blood vessels. These fatty acids are not available in other milks.

Breastmilk provides all the water an infant needs, even in a hot, dry climate.

Breastmilk protects an infant against infection. An infant cannot fight infection as well as an older child or an adult. Through breastmilk, an infant can share his mother's ability to fight infection. Exclusively breastfed infants are less likely to get diarrhoea, and less likely to die from diarrhoea or other infections. Breastfed infants are less likely to develop pneumonia, meningitis, and ear infections than non-breastfed infants.

Breastfeeding helps a mother and baby to develop a close, loving relationship.

Breastfeeding protects a mother's health. After delivery, breastfeeding helps the uterus return to its previous size. This helps reduce bleeding and prevent anaemia. Breastfeeding also reduces the mother's risk of ovarian cancer and breast cancer.

It is best not to give an infant below the age of 6 months any milk or food other than breastmilk. For example, do not give cow's milk, goat's milk, formula, cereal, or extra drinks such as tea, juices, or water. Reasons:

- Giving other food or fluid reduces the amount of breastmilk taken.
- Other food or fluid may contain germs from water or on feeding bottles or utensils. These germs can cause infection.
- Other food or fluid may be too dilute, so that the infant becomes malnourished.
- Other food or fluid may not contain enough Vitamin A.
- Iron is poorly absorbed from cow's and goat's milk.
- The infant may develop allergies.
- The infant may have difficulty digesting animal milk, so that the milk causes diarrhoea, rashes, or other symptoms. Diarrhoea may become persistent.

Exclusive breastfeeding will give an infant the best chance to grow and stay healthy

3.2 COUNSEL THE MOTHER ABOUT FEEDING PROBLEMS

3.2.1 IDENTIFY FEEDING PROBLEMS

It is important to complete the assessment of feeding and identify all the feeding problems *before* giving advice.

Based on the mother's answers to the feeding questions, identify any differences between the child's actual feeding and the recommendations. These differences are problems. Some examples of feeding problems are listed below.

EXAMPLES OF FEEDING PROBLEMS

CHILD'S ACTUAL FEEDING	*RECOMMENDED FEEDING*
A 1-month-old is given sugar water as well as breastmilk.	A 1-month-old should be given only breastmilk and no other food or fluid.
A 3 week old infant is breastfed 5 times a day	A 3 week old infant should be breastfed at least 8 times in 24 hours

In addition to differences from the feeding recommendations, some other problems may become apparent from the mother's answers. Examples of such problems are:

* **Difficulty breastfeeding**
  The mother may mention that breastfeeding is uncomfortable for her, or that her child seems to have difficulty breastfeeding. If so, you will need to assess breastfeeding as described on the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart. The mother may have nipple or breast problems that need to be treated. You may find that the infant's positioning and attachment could be improved.

* **Use of feeding bottle**
  Feeding bottles should not be used. They are often dirty, and germs easily grow in them. Fluids tend to be left in them and soon become spoiled or sour. The child may drink the spoiled fluid and become ill. Also, sucking on a bottle may interfere with the child's desire to breastfeed.

3.2.2 COUNSEL THE MOTHER ABOUT FEEDING

Since you have identified feeding problems, you will be able to limit your advice to what is most relevant to the mother.

GIVE RELEVANT ADVICE

If the feeding recommendations are being followed and there are no problems, praise the mother for her good feeding practices. Encourage her to keep feeding the child the same way during illness and health.

If you have found any of the feeding problems, give the mother the recommended advice.

If the mother has a breast problem, such as engorgement, sore nipples, or a breast abscess, advise her according to instructions in section 1.7 of this module.

If a young infant is receiving food or fluids other than breastmilk, the goal is to gradually change back to more or exclusive breastfeeding. Suggest giving more frequent, longer breastfeeds, day and night. As breastfeeding increases, the mother should gradually reduce other milk or food. Since this is an important change in the infant's feeding, be sure to ask the mother to return for follow-up in 2 days.

In some cases, changing to more or exclusive breastfeeding may be impossible (for example, if the mother never breastfed, if she must be away from her infant for long periods, or if she will not breastfeed for personal reasons). In such cases, the mother should be sure to correctly prepare cow's milk or other dairy/locally appropriate animal milk and use them within an hour to avoid spoilage.

To prepare cow's milk for young infants, mix 1 level teaspoon of sugar in 1 cup boiled whole cow's milk. Give plain water (preferably boiled and cooled/ filtered, if possible) to the infant between feeds.

A cup and spoon are better than a bottle. A cup is easier to keep clean and does not interfere with breastfeeding. To feed a baby by cup and spoon:

- Hold the baby sitting upright or semi-upright on your lap.

- Hold a spoonful of milk to the baby's lips. Tip the spoon so the liquid just reaches the baby's lips.

- The baby becomes alert and opens his mouth and eyes.
  - A low-birthweight baby takes the milk into his mouth with the tongue.
  - A full-term or older baby sucks the milk, spilling some of it.

- ***Do not pour the milk into the baby's mouth. Just hold the spoon to his lips and let him take it himself.***

- When the baby has had enough, he closes his mouth and will not take more.

3.3 USE GOOD COMMUNICATION SKILLS

When counselling mothers, it is important to use the following skills:

ASK and LISTEN: You have already learned the importance of asking questions to assess the infant's feeding. Listen carefully to find out what the mother is already doing for her infant. Then you will know what she is doing well, and what practices need to be changed.

PRAISE: It is likely that the mother is doing something helpful for the child, for example, exclusive breastfeeding. Praise the mother for something helpful she has done. Be sure that the praise is genuine, and only praise actions that are indeed helpful to the child.

ADVISE: Limit your advice to what is relevant to the mother at this time. Use language that the mother will understand. If possible, use pictures or real objects to help explain.

Advise against any harmful practices that the mother may have used. When correcting a harmful practice, be clear, but also be careful not to make the mother feel guilty or incompetent. Explain why the practice is harmful.

CHECK UNDERSTANDING: Ask questions to find out what the mother understands and what needs further explanation. Avoid asking leading questions (that is, questions which suggest the right answer) and questions that can be answered with a simple yes or no.

Examples of good checking questions are: "What will you feed your child?" "How often will you breastfeed her?" If you get an unclear response, ask another checking question. Praise the mother for correct understanding or clarify your advice as necessary.

3.4 USE A MOTHER'S CARD

A Mother's Card can be given to each mother to help her remember appropriate feeding recommendations, and when to return to the doctor. The Mother's Card has words and pictures that illustrate the main points of advice. This card is given as an annexure of the chart booklet. The card shows advice about foods, fluid, and signs to return immediately to the doctor. There is also a place to tick appropriate fluids for diarrhoea and record when to return for the next immunization.

There are many reasons a Mother's Card can be helpful:

- It will remind you or your staff of important points to cover when counselling mothers about foods, fluid, and when to return.

- It will remind the mother what to do when she gets home.

- The mother may show the card to other family members or neighbours, so more people will learn the messages it contains.

- The mother will appreciate being given something during the visit.

- Multivisit cards can be used as a record of treatments and immunizations given.

When reviewing a Mother's Card with a mother:

1. Hold the card so the mother can easily see the pictures, or allow her to hold it herself.

2. Explain each picture. Point to the pictures as you talk. This will help the mother remember what the pictures represent.

3. Circle or record information that is relevant to the mother. For example, circle the feeding advice for the infant's age. Circle the signs to return immediately. If the child has diarrhoea, tick the appropriate fluid(s) to give. Record the date of the next immunization needed.

4. Watch to see if the mother seems worried or puzzled. If so, encourage questions.

5. Ask the mother to tell you in her own words what she should do at home. Encourage her to use the card to help her remember.

6. Give her the card to take home. Suggest that she show it to others in her family.

If you cannot obtain a large enough supply of cards to give to every mother, keep several in the clinic to show to mothers.

3.5 ADVISE MOTHER HOW TO KEEP THE YOUNG INFANT WITH LOW WEIGHT OR LOW BODY TEMPERATURE WARM

➢ ***Advise mother how to keep the young infant with low weight or low body temperature warm at home:***

- Do not bathe young infant with low weight or low body temperature; instead sponge with lukewarm water to clean.
- Provide Skin to Skin contact (Kangaroo mother care) continuously, day and night.
- When Skin to Skin contact not possible:
  - Keep the room warm (>25°C) with a home heating device.
  - Clothe the baby in 3-4 layers; cover the head, hands and feet with cap, gloves and socks, respectively.
  - Let baby and mother lie together on a soft, thick bedding.
  - Cover the baby and the mother with additional quilt, blanket or shawl, especially in cold weather.

FEEL THE BABY's FEET PERIODICALLY– BABY'S FEET SHOULD BE ALWAYS WARM TO TOUCH

3.6 ADVISE MOTHER TO GIVE HOME CARE

These are basic home care steps for ALL sick young infants. Teach each mother these steps.

➢ ***Advise Mother to Give Home Care for the Young Infant***

➢FOOD
➢FLUIDS

} Breastfeed frequently, as often and for as long as the infant wants, day and night, during sickness and health.

➢Make sure the young infant stays warm at all times.
- In cool weather, cover the infant's head and feet and dress the infant with extra clothing.

FOOD AND FLUIDS:

Frequent breastfeeding will give the infant nourishment and help prevent dehydration.

MAKE SURE THE YOUNG INFANT STAYS WARM AT ALL TIMES:

Keeping a sick young infant warm (but not too warm) is very important. Low temperature alone can kill young infants.

3.7 ADVISE MOTHER WHEN TO RETURN:

EVERY mother who is taking her infant home needs to be advised when to return to the doctor. She may need to return:

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

- IMMEDIATELY, if signs appear that suggest the illness is worsening, or

- for the infant 's next immunization (the next WELL-CHILD VISIT).

It is especially important to teach the mother the signs to return immediately. You learned these signs in the module *Identify Treatment,* and they are repeated in this section of this module. These signs mean that additional care is needed for serious illness.

FOLLOW-UP VISITS

In the module *Identify Treatment,* you learned that certain problems require follow-up in a specific number of days. For example, local bacterial infections require follow-up to ensure that an antibiotic is working. Some other problems, such as diarrhoea, require follow-up only if the problem persists.

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

FOLLOW-UP VISIT

Advise the mother to come for follow up at the earliest time listed for the child's problems

Follow-up Visit	
If the infant has:	**Return for follow-up in:**
LOCAL BACTERIAL INFECTION JAUNDICE DIARRHEA ANY FEEDING PROBLEM THRUSH	2 days
LOW WEIGHT FOR AGE	14 days

WHEN TO RETURN IMMEDIATELY

Also teach the mother ***when to return immediately***. The signs mentioned below are particularly important signs to watch for. Teach the mother these signs. Use local terms that the mother can understand. Use the mother's card to explain the signs and help her to remember them. Circle the signs that the mother must remember. Ask her checking questions to be sure she knows when to return immediately.

When to Return Immediately:
Advise the mother to return immediately if the young infant has any of these signs:
Breastfeeding or drinking poorly Becomes sicker Develops a fever or feels cold to touch Fast breathing Difficult breathing Palms and soles become yellow (if young infant has jaundice) Diarrhoea with blood in stool

NEXT WELL-CHILD VISIT

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

***

EXERCISE E

In this exercise you will review the steps of some treatments for sick young infants.
Case : Vinod

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

   *

   *

   *

   *

   *

2. How often should his mother treat the skin pustules?

3. Vinod also needs "home care for the young infant." What are the 2 main points to advise the mother about home care?

   *

   *

4. What would you tell Vinod's mother about when to return?

When you have completed this exercise, please discuss
your answers with a facilitator.

3.8 COUNSEL THE MOTHER ABOUT HER OWN HEALTH

During a sick infant visit, listen for any problems that the mother herself may be having. The mother may need treatment or referral for her own health problems.

- ***Counsel the Mother About Her Own Health***

  - **If the mother is sick, provide care for her, or refer her for help.**
  - **If she has a breast problem (such as engorgement, sore nipples, breast infection), provide care for her or refer her for help.**
  - **Advise her to eat well to keep up her own strength and health.**
  - **Give iron folic acid tablets for a total of 100 days.**
  - **Make sure she has access to:**
    - **Family planning**
    - **Counselling on STD and AIDS prevention**

4.0 FOLLOW UP

Some sick young infants need to return to the doctor for follow-up. Their mothers are told when to come for a follow-up visit (such as in 2 days, or 14 days). At a follow-up visit the doctor can see if the infant is improving on the drug or other treatment that was prescribed. Some young infants may not respond to a particular antibiotic and you may need to try a second drug. Follow-up is especially important for young infants with a feeding problem, to be sure they are being fed adequately and are gaining weight.

Because follow-up is important, your clinic should make special arrangements so that follow-up visits are convenient for mothers. If possible, mothers should not have to wait in the queue for a follow-up visit. ***Not charging for follow-up visits is another way to make follow-up convenient and acceptable for mothers.*** Some clinics use a system that makes it easy to find the records of children scheduled for follow-up.

At a follow-up visit, you should do different steps than at a child's initial visit for a problem. Treatments given at the follow-up visit are often different than those given at an initial visit.

Where is Follow-up Discussed on the Case Management Charts?

Follow-up instructions for young infants are on the *TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER* chart.

How to Manage a Child Who Comes for Follow-up:

As always, ask the mother about the young infant's problem. You need to know if this is a follow-up or an initial visit for this illness. How you find out depends on how your clinic registers patients and how the clinic finds out why they have come.

For example, the mother may say to you or other clinic staff that she was told to return for follow-up for a specific problem. If your clinic gives mothers follow-up slips that tell them when to return, ask to see the slip. If your clinic keeps a chart on each patient, you may see that the child came only a few days ago for the same illness.

Once you know that the young infant has come to the clinic for follow-up of an illness, ask the mother if the child has, in addition, developed any **new** problems. For example, if the young infant has come for follow-up of local bacterial infection, but now he has developed diarrhoea, he has a new problem. This child requires a full assessment. Check for possible bacterial infection / jaundice and feeding problem or malnutrition. Classify and treat the child for diarrhoea (the new problem) as you would at an initial visit. Reassess and treat the local bacterial infection according to the follow-up box.

If the child does <u>not</u> have a new problem, locate the follow-up box that matches the young infant's previous classification. Then follow the instructions in that box.

* Assess the young infant according to the instructions in the follow-up box.

* Use the information about the young infant's signs to select the appropriate treatment.

* Give the treatment.

Important: If a young infant who comes for follow-up has several problems and is getting worse, REFER THE YOUNG INFANT TO HOSPITAL.

Remember:
If a young infant has any new problem, you should assess the young infant as at an initial visit.

4.1 GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

Follow-up visits are recommended for young infants who are classified as LOCAL BACTERIAL INFECTION, JAUNDICE, DIARRHOEA, FEEDING PROBLEM OR LOW WEIGHT (including thrush). Instructions for carrying out follow-up visits for the sick young infant age up to 2 months are on the *YOUNG INFANT* chart.

As with the sick child who comes for follow-up, a sick young infant is assessed differently at a follow-up visit than at an initial visit. Once you know that the young infant has been brought to the clinic for follow-up, ask whether there are any **new** problems. An infant who has a new problem should receive a full assessment as if it were an initial visit.

If the infant does not have a new problem, locate the section of the *YOUNG INFANT* chart with the heading "Give Follow-Up Care for the Sick Young Infant." Use the box that matches the infant's previous classification.

The instructions in the follow-up box (for the previous classification) tell how to assess the young infant. These instructions also tell the appropriate follow-up treatment to give. Do not use the classification tables for the young infant to classify the signs or determine treatment. There is one exception: If the young infant has diarrhoea, classify and treat dehydration as you would at an initial assessment.

4.1.1 LOCAL BACTERIAL INFECTION

When a young infant classified as having LOCAL BACTERIAL INFECTION returns for follow-up in 2 days, follow these instructions:

- ***LOCAL BACTERIAL INFECTION***

  After 2 days:

  Look at the umbilicus. Is it red or draining pus?

  Look at the skin pustules. Are there 10 or more pustules or a big boil?

  Look at the ear. Is it still discharging pus?

  Treatment:

  - If ***umbilical pus or redness remains or is worse***, refer to hospital.
  - If ***umbilical pus and redness are improved***, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.
  - If there are 10 or more ***skin pustules or a big boil***, refer to hospital
  - If ***skin pustules are improved***, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.
  - If ***ear discharge persists,*** continue wicking to dry the ear. Continue to give antibiotics to complete 5 days of treatment even if ear discharge has stopped.

To assess the young infant, look at the umbilicus or skin pustules. Then select the appropriate treatment.

- If **pus or redness remains or is worse**, refer the infant to hospital. Also refer if there are more pustules than before.

- If **pus and redness are improved**, tell the mother to complete the 5 days of antibiotic that she was given during the initial visit. Improved means there is less pus and it has dried. There is also less redness. 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 (cleaning and applying gentian violet to the skin pustules or umbilicus).

4.1.2 JAUNDICE

When a young infant classified as having JAUNDICE returns for follow-up in 2 days, follow these instructions:

> ➢ ***JAUNDICE***
> After 2 days:
> Look for jaundice
> - Are the palms and soles yellow?
> ➢ If palms and soles are yellow or age 14 days or more, refer to hospital
> ➢ If palms and soles are not yellow and age less than 14 days, advise home care and when to return immediately

4.1.3 DIARRHOEA

When a young infant classified as having DIARRHOEA returns for follow-up in 2 days, follow these instructions:

> ➢ ***DIARRHOEA WITH SOME DEHYDRATION***
> After 2 days:
> Ask:
> - Has the diarrhoea stopped ?
>
> ➢ If diarrhea persists, Asess the young infant for diarrhea *(> See ASESS & CLASSIFY chart*) and manage as per initial visit.
> ➢ If diarrhoea stopped – reinforce exclusive breast feeding

Reassess the young infant for diarrhea as during the initial visit. Also, ask the mother the additional questions listed to determine whether the infant is improving.

- If the infant is **dehydrated**, use the classification table on the *YOUNG INFANT* chart to classify the dehydration and select a fluid plan.

- If the signs are the same or worse or new signs appear, refer the infant to hospital. If the infant has started passing blood in the stool, refer to hospital. If the young infant has developed fever, give intramuscular antibiotics before referral, as for POSSIBLE SERIOUS BACTERIAL INFECTION.

➢ If the infant's signs are improving, use the classification table on the *YOUNG INFANT* chart to classify the dehydration and select a fluid plan for home treatment.

4.1.4 FEEDING PROBLEM

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

➢ ***FEEDING PROBLEM***

After 2 days:
Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.
Ask about any feeding problems found on the initial visit.

➢ Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the young infant back again in 2 days.

Exception:
If you do not think that feeding will improve, or if the young infant has ***lost weight***, refer the child.

Reassess the feeding by asking the questions in the young infant assessment box, "Then Check for Feeding Problem or Low Weight." Assess breastfeeding if the infant is breastfed.

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 the mother how successful she has been carrying out these recommendations and ask about any problems she encountered in doing so.

➢ Counsel the mother about new or continuing feeding problems. Refer to the recommendations in the box "Counsel the Mother 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 mother to stop giving an infant drinks of 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.

4.1.5 LOW WEIGHT

When a young infant who was classified as LOW WEIGHT returns for follow-up in 14 days, follow these instructions:

> ➢ ***LOW WEIGHT***
>
> After 14 days:
> Weigh the young infant and determine if the infant is still low weight for age.
> Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.
>
> ➢ If the infant is ***no longer low weight for age***, praise the mother and encourage her to continue.
>
> ➢ If the infant is ***still low weight for age, but is feeding well***, praise the mother. Ask her to have her infant weighed again within a month or when she returns for immunization.
>
> ➢ If the infant is ***still low weight for age and still has a feeding problem***, counsel the mother about the feeding problem. Ask the mother to return again in 2 days.
>
> ***Exception:***
> If you do not think that feeding will improve, or if the young infant has ***lost weight***, refer to hospital.

Determine if the young infant is still low weight for age. Also reassess his feeding by asking the questions in the assessment box, "Then Check for Feeding Problem or Low Weight." Assess breastfeeding if the young infant is breastfed.

- If the young infant is **no longer low weight for age**, praise the mother for feeding the infant well. Encourage her to continue feeding the infant as she has been or with any additional improvements you have suggested.

- If the young infant is **still low weight for age, but is feeding well**, praise the mother. 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 birthweight will still be low weight for age, but will be feeding and gaining weight well.

- If the young infant is **still low weight for age and still has a feeding problem**, counsel the mother about the problem. Ask the mother to return with her infant again in 2 days.

4.1.6 THRUSH

When a young infant who had thrush returns for follow-up in 2 days, follow these instructions:

> ➢ ***THRUSH***
>
> After 2 days:
> Look for ulcers or white patches in the mouth (thrush).
> Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.
>
> ➢ If ***thrush is worse***, or the infant has ***problems with attachment or suckling***, refer to hospital.
>
> ➢ If ***thrush is the same or better***, and if the infant is ***feeding well***, continue gentian violet 0.25% for a total of 5 days.

Check the thrush and reassess the infant's feeding.

➢ If the **thrush is worse** or the infant has **problems with attachment 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.

➢ If the **thrush is the same or better** and the infant is **feeding well**, continue the treatment with half-strength gentian violet. Stop using gentian violet after 5 days.

EXERCISE F

Read about each young infant who came for follow-up and answer the questions. Refer to the *YOUNG INFANT* chart as needed.

Local bacterial infections are treated with amoxicillin/cotrimoxazole.

1. Sashie is 5 weeks old. The doctor classified her as having LOCAL BACTERIAL INFECTION because she had some skin pustules on her buttocks. Her mother got pediatric tablets of amoxycillin 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. Sashie has no new problems.

   a) How would you reassess Sashie?

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

   b) What treatment does Sashie need now?

2. Afiya, a 5-week-old infant, was brought to the clinic 2 days ago. During that visit he was classified with a FEEDING PROBLEM because he was not able to attach well to the breast. He weighed 3.25 kg (not low weight for age). He was breastfeeding 5 times a day. He also had white patches of thrush in his mouth. Afiya's mother was taught how to position her infant for breastfeeding and how to help him attach to the breast. She was advised to increase the frequency of feeding to at least 8 times per 24 hours and to breastfeed as often as the infant wants, day and night. She was taught to treat thrush at home. She was also asked to return for follow-up in 2 days. Today, Afiya's mother has come to see you for follow-up. She tells you that the infant has no new problems.

a) How would you reassess this infant?

Afiya's weight today is 3.35 kg. When you reassess the infant's feeding, the mother tells you that he is feeding easily. She is now breastfeeding Afiya at least 8 times a day, and sometimes more when he wants. He is not receiving other foods or drinks. You ask the mother to put Afiya to the breast. When you check the attachment, you note that the infant's chin is touching the breast. The mouth is wide open with the lower lip turned outward. There is more areola visible above than below the mouth. The infant is suckling effectively. You look in his mouth. You cannot see white patches now.

b) How will you treat this infant?

When you have completed this exercise, discuss your work with a facilitator.