HANDBOOK
IMCI
Integrated Management of Childhood Illness

World Health Organization
Department of Child and Adolescent Health and Development (CAH)

UNICEF

April 2000
How to adapt the Model IMCI Handbook

Note: Do not include this section in the adapted IMCI Handbook

The WHO/UNICEF guidelines for Integrated Management of Childhood Illness (IMCI) offer simple and effective methods to prevent and manage the leading causes of serious illness and mortality in young children. The clinical guidelines promote evidence-based assessment and treatment, using a syndromic approach that supports the rational, effective and affordable use of drugs. The guidelines include methods for checking a child's immunization and nutrition status; teaching parents how to give treatments at home; assessing a child's feeding and counselling to solve feeding problems; and advising parents about when to return to a health facility. The approach is designed for use in outpatient clinical settings with limited diagnostic tools, limited medications and limited opportunities to practice complicated clinical procedures.

In each country, the IMCI clinical guidelines are adapted:

- To cover the most serious childhood illnesses typically seen at first-level health facilities,
- To make the guidelines consistent with national treatment guidelines and other policies, and
- To make the guidelines feasible to implement through the health system and by families caring for their children at home.

The IMCI charts and related in-service training materials, provided by WHO and UNICEF, are considered to be a "generic" version. This model IMCI handbook is also a generic document. The WHO Department of Child and Adolescent Health and Development (CAH) created this handbook to help teaching institutions incorporate IMCI into academic programmes for doctors, nurses and other health professionals.

Before the handbook can be used, however, it needs to be adapted in two ways:

- **Technical Adaptation:** All text, charts and illustrations in the model handbook should be carefully reviewed and, if needed, revised to make them consistent with the nationally adapted IMCI guidelines.

- **Pedagogical Adaptation:** The model handbook should be modified to correspond to the teaching/learning methods used by a faculty. For example, a faculty may choose to revise or reformat the handbook as a stand-alone document, or to incorporate the contents of the handbook into other materials or textbooks.

The two step process of adaptation will ensure that the content of the handbook is consistent with a country's national IMCI guidelines, and that its style and format are compatible with a faculty's approach to teaching.
Technical Adaptation

When the IMCI strategy was initially introduced in your country, a national task force adapted the generic IMCI guidelines and created in-service training materials. The in-service training materials normally include an IMCI chart booklet, IMCI mother's card, set of IMCI training modules, photograph booklet, video, and wall charts. The nationally adapted IMCI charts and in-service training modules should be referred to when making technical adaptations to this handbook. In countries where the guidelines have been adapted, the IMCI in-service training materials can be requested from the Ministry of Health. *Computer diskettes of the model IMCI handbook are available from WHO CAH.*

Each section of the model IMCI handbook should be adapted in the following ways:

- **Forward.** It is recommended to include some information and/or graphs about the main causes of childhood morbidity and mortality in a country, and to add some country-specific information about the need for, or appropriateness of, the IMCI approach.

- **Part I: Integrated Management of Childhood Illness (IMCI).** This section of the handbook (Chapters 1 through 3) does not require technical adaptation.

- **Part II: The Sick Child Age 2 Months Up to 5 Years: Assess and Classify.** The technical guidelines in this section of the handbook (Chapters 4 through 13) should agree with those in the nationally adapted IMCI training module called Assess and Classify the Sick Child Age 2 Months Up to 5 Years. Like the module, Part II of the handbook describes the types and combinations of clinical signs used to assess main symptoms of common childhood illnesses, and provides action-oriented classifications for each main symptom. When adapting the IMCI technical guidelines, it is likely that the national IMCI task force modified the assessment process and the classifications for certain main symptoms. Some changes will therefore be needed in the handbook to make all main symptoms, clinical signs and classifications consistent with those in the national IMCI charts and training modules. The chapter in the handbook on Fever (Chapter 9) may require particular revisions, because common illnesses associated with fever tend to be country specific. In addition to revising the text, pieces of the national IMCI charts should be inserted on the pages indicated in the model handbook. The format of the case recording form used in the examples also should be revised to match the national IMCI recording form.

- **Part III: The Sick Young Infant Age 1 Week Up to 2 Months: Assess and Classify.** The technical information in this section (Chapters 14 through 15) should agree with Chapter 1, Assess and Classify the Sick Young Infant, in the national IMCI module titled Management of the Sick Young Infant Age 1 Week Up to 2 Months. This section will require adaptations very similar to Part II in order to ensure that all main symptoms, clinical signs and classifications are consistent with the national IMCI charts and training modules. The format of the case recording form used in the examples should be revised to match the national recording form for young infants.

- **Part IV: Identify Treatment.** The technical guidelines in this section (Chapters 16 through 18) should agree with those in the nationally adapted IMCI module called Identify Treatment, AND to Chapter 2, Identify Appropriate Treatment, in the module called Management of the Sick Young Infant Age.
1 Week Up to 2 Months. The names of classifications in this section should match those in
the national IMCI charts. If the national IMCI guidelines do not recommend cotrimoxazole for
the treatment of both MALARIA and PNEUMONIA, delete the first bullet point under Problems
that Require Special Explanation in Chapter 18 of the handbook. It is important to note that the
steps for giving urgent pre-referral treatment and referring the child to hospital, found in
Chapters 4 and 5 of the Identify Treatment module, were moved to Part V (Chapter 20) of the
model handbook.

Part V: Treat the Sick Child or the Sick Young Infant. The technical guidelines in this
section (Chapters 19 through 24) should agree with those in the national IMCI module called
Treat the Child, AND to Chapter 3, Treat the Sick Young Infant and Counsel the Mother, in the
module called Management of the Sick Young Infant Age 1 Week Up to 2 Months. Chapter 20, Urgent
Referral, of the handbook combines selected chapters from three different modules—Identify
Treatment, Treat the Child and Management of the Sick Young Infant Age 1 Week Up to 2 Months. In this
section of the handbook, some changes may be needed to the names of classifications, the
names of drugs, drug doses, and schedules to correspond with those in the national IMCI
charts and training modules. It should be noted that Annexes C-1 through C-4 of the Treat the
Child module were combined and moved to Annex A, Treat Severe Dehydration Quickly, of the
handbook. It is also important to note that information from the national training modules on
teaching and advising a mother about treatment and feeding was incorporated into Part VI,
Communicate and Counsel, of the model handbook.

Part VI: Communicate and Counsel. The technical information in this section (Chapters 25
through 30) should agree with the national IMCI module called Counsel the Mother, AND to
selected sections of the Treat the Child and Management of the Sick Young Infant Age 1 Week Up to 2
Months modules. The feeding recommendations described in Chapter 29 of the handbook may
need revision to make them consistent with the recommendations in the national IMCI charts.
In addition, common local feeding problems should be taken from the national IMCI charts
and inserted into the section in Chapter 29 called Identify Feeding Problems.

Part VII: Give Follow-Up Care. The technical guidelines in this section (Chapter 31 through
32) should agree with those in the national IMCI module called Follow-Up. The names of
classifications, number of days to a follow-up visit, and the guidelines for each type of follow-
up visit should coincide with those in the national IMCI charts and training modules.

Annexes. Annex A corresponds to Annexes C-1 through C-4 in the IMCI module called Treat the
Child. Copies of the national IMCI case recording forms for the Management of the Sick Young Infant
Age 1 Week Up to 2 Months and the Management of the Sick Child Age 2 Months Up to 5 Years should
appear in Annex B. An example of a local Mother's Card may be attached as Annex C. It is also
recommended to attach a copy of the Glossary from the IMCI module called Introduction as
well as a copy of the national IMCI chart booklet.
Pedagogical Adaptation

Each faculty will need to determine how to incorporate IMCI into the relevant certificate, diploma or degree programme(s). Because this process takes time and consideration, many faculties have chosen to begin IMCI teaching using a draft version of the technically adapted IMCI handbook. The draft handbook serves as an intermediate step, giving a faculty time to gain experience with IMCI teaching in order to effectively modify the handbook to suit their own approach to teaching, and to identify other appropriate materials, already used by the faculty, in which to incorporate elements of the handbook.

Pedagogical adaptation may also involve adding to or reorganizing the contents of the handbook. For example, a faculty might decide to add the scientific basis for the IMCI guidelines. If this is the case, the faculty may refer to the section of the IMCI Adaptation Guide called Technical Basis for Adapting Clinical Guidelines, Feeding Recommendations, and Local Terms (also available from WHO CAH). This section of the adaptation guide provides technical justification for the generic IMCI guidelines. To reinforce student learning, some faculties have developed student notes based on the model IMCI handbook, some have adapted exercises from the IMCI in-service training modules, and others have created IMCI problem-solving exercises and case studies.
Contents

Forward ix

PART I: Integrated Management of Childhood Illness (IMCI) 1
1 The integrated case management process 3
2 Selecting the appropriate case management charts 6
3 Using the case management charts and case Recording Forms 8

PART II: The sick child age 2 months up to 5 years: Assess and classify 11
4 Assess and classify the sick child 13
5 When a child is brought to the clinic 14
6 General danger signs 17
7 Cough or difficult breathing 19
8 Diarrhoea 25
9 Fever 32
10 Ear problem 43
11 Malnutrition and anaemia 47
12 Immunization status 53
13 Other problems 56

PART III: The sick young infant age 1 week up to 2 months: Assess and classify 57
14 Overview of assess and classify 59
15 Assess and classify the sick young infant 61

PART IV: Identify treatment 73
16 Choose treatment priorities 75
17 Identify urgent pre-referral treatment 78
18 Identify treatment for patients who do not need urgent referral 80

PART V: Treat the sick child or the sick young infant 83
19 Overview of the types of treatment 85
20 Urgent referral 86
21 Appropriate oral drugs 90
22 Treating local infections 94
23 Extra fluid for diarrhoea and continued feeding 95
24 Immunizations 101
<table>
<thead>
<tr>
<th>PART VI: Communicate and counsel</th>
<th>103</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Use good communication skills</td>
<td>105</td>
</tr>
<tr>
<td>26 Teach the caretaker to give oral drugs at home</td>
<td>109</td>
</tr>
<tr>
<td>27 Teach the caretaker to treat local Infections at home</td>
<td>112</td>
</tr>
<tr>
<td>28 Counsel the mother about breastfeeding problems</td>
<td>116</td>
</tr>
<tr>
<td>29 Counsel the mother about feeding and fluids</td>
<td>119</td>
</tr>
<tr>
<td>30 Counsel the mother about when to return and about her own health</td>
<td>127</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART VII: Give follow-up care</th>
<th>129</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Follow-up care for the sick child</td>
<td>131</td>
</tr>
<tr>
<td>32 Follow-up care for the sick young infant</td>
<td>140</td>
</tr>
</tbody>
</table>

ANNEX A: Plan C—Treat severe dehydration quickly | 143 |
ANNEX B: Sample case recording forms | 151 |
ANNEX C: Example mother’s card | 155 |
Glossary | 157 |
IMCI Chart Booklet
Forward

Since the 1970s, the estimated annual number of deaths among children less than 5 years old has decreased by almost a third. This reduction, however, has been very uneven. And in some countries rates of childhood mortality are increasing. In 1998, more than 50 countries still had childhood mortality rates of over 100 per 1000 live births. Altogether more than 10 million children die each year in developing countries before they reach their fifth birthday. Seven in ten of these deaths are due to acute respiratory infections (mostly pneumonia), diarrhoea, measles, malaria, or malnutrition—and often to a combination of these conditions (figure 1).

Projections based on the 1996 analysis The global burden of disease indicate that these conditions will continue to be major contributors to child deaths in the year 2020 unless significantly greater efforts are made to control them. Every day, millions of parents take children with potentially fatal illnesses to first-level health facilities such as clinics, health centres and outpatient departments of hospitals. In some countries, three in four episodes of childhood illness are caused by one of these five conditions. And most sick children present with signs and symptoms related to more than one. This overlap means that a single diagnosis may not be possible or appropriate, and that treatment may be complicated by the need to combine therapy for several conditions. Surveys of the management of sick children at these facilities reveal that many are not properly assessed and treated and that their parents are poorly advised.

At this level, in most developing countries, diagnostic supports such as radiology and laboratory services are minimal or non-existent; and drugs and equipment are scarce. Limited supplies and equipment, combined with an irregular flow of patients, leave health care providers at first-level facilities with few opportunities to practise complicated clinical procedures. Instead, they must often rely on history and signs and symptoms to determine a course of management that makes the best use of available resources.

Providing quality care to sick children in these conditions is a serious challenge. In response to this challenge, WHO and UNICEF developed a strategy known as Integrated Management of Childhood Illness (IMCI). Although the major stimulus for IMCI came from the needs of curative care, the strategy combines improved management of childhood illness with aspects of nutrition, immunisation, and other important disease

---

prevention and health promotion elements. The objectives are to reduce deaths and the frequency and severity of illness and disability and to contribute to improved growth and development.

The strategy includes three main components:

★ Improvements in the case-management skills of health staff through the provision of locally adapted guidelines on IMCI and through activities to promote their use
★ Improvements in the health system required for effective management of childhood illness
★ Improvements in family and community practices

The core of the IMCI strategy is integrated case management of the most common childhood problems, with a focus on the most important causes of death. The generic guidelines, however, are not designed for immediate use. A guided process of adaptation ensures that the guidelines, and the learning materials that go with them, reflect the epidemiology within a country and are tailored to fit the needs, resources and capacity of a country's health system.

The clinical guidelines, which are based on expert clinical opinion and research results, are designed for the management of sick children aged 1 week up to 5 years. They promote evidence-based assessment and management, using a syndromic approach that supports the rational, effective and affordable use of drugs. They include methods for assessing signs that indicate severe disease; assessing a child's nutrition, immunization, and feeding; teaching parents how to care for a child at home; counselling parents to solve feeding problems; and advising parents about when to return to a health facility. The guidelines also include recommendations for checking the parents' understanding of the advice given and for showing them how to administer the first dose of treatment.

When assessing a sick child, a combination of individual signs leads to one or more classifications, rather than to a diagnosis. IMCI classifications are action oriented and allow a health care provider to determine if a child should be urgently referred to another health facility, if the child can be treated at the first-level facility (e.g. with oral antibiotic, antimalarial, ORS, etc.), or if the child can be safely managed at home.

When used correctly, the approach described in this handbook ensures the thorough assessment of common serious conditions, nutrition and immunization; promotes rapid and affordable interventions; strengthens the counselling of caretakers and the provision of preventive services; and assists health care providers to support and follow national guidelines.
Part I

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (IMCI)
CHAPTER 1
The integrated case management process

Integrated case management relies on case detection using simple clinical signs and empirical treatment. As few clinical signs as possible are used. The signs are based on expert clinical opinion and research results, and strike a careful balance between sensitivity and specificity (see Box 1). The treatments are developed according to action-oriented classifications rather than exact diagnosis. They cover the most likely diseases represented by each classification.

The IMCI process can be used by doctors, nurses and other health professionals who see sick infants and children aged from 1 week up to five years. It is a case management process for a first-level facility such as a clinic, a health centre or an outpatient department of a hospital.

The IMCI guidelines describe how to care for a child who is brought to a clinic with an illness, or for a scheduled follow-up visit to check the child’s progress. The guidelines give instructions for how to routinely assess a child for general danger signs (or possible bacterial infection in a young infant), common illnesses, malnutrition and anaemia, and to look for other problems. In addition to treatment, the guidelines incorporate basic activities for illness prevention.

This handbook will help you learn to use the IMCI guidelines in order to interview caretakers, accurately recognize clinical signs, choose appropriate treatments, and provide counselling and preventive care. The complete IMCI case management process involves the following elements:

- **Assess** a child by checking first for danger signs (or possible bacterial infection in a young infant), asking questions about common conditions, examining the child, and checking nutrition and immunization status. Assessment includes checking the child for other health problems.

- **Classify** a child’s illnesses using a colour-coded triage system. Because many children have more than one condition, each illness is classified according to whether it requires:
  - urgent pre-referral treatment and referral (pink), or
  - specific medical treatment and advice (yellow), or
  - simple advice on home management (green).

- After classifying all conditions, **identify** specific treatments for the child. If a child requires urgent referral, give essential treatment before the patient is transferred. If a child needs treatment at home, develop an integrated treatment plan for the child and give the first dose of drugs in the clinic. If a child should be immunized, give immunizations.

---

**Box 1: Sensitivity and Specificity**

*Sensitivity and specificity measure the diagnostic performance of a clinical sign compared with that of the gold standard, which by definition has a sensitivity of 100% and a specificity of 100%.*

*Sensitivity* measures the proportion or percentage of those with the disease who are correctly identified by the sign. In other words, it measures how sensitive the sign is in detecting the disease. ([Sensitivity = true positives / (true positives + false negatives)])

*Specificity* measures the proportion of those without the disease who are correctly called free of the disease by using the sign. ([Specificity = true negatives / (true negatives + false positives)])

---

Provide practical treatment instructions, including teaching the caretaker how to give oral drugs, how to feed and give fluids during illness, and how to treat local infections at home. Ask the caretaker to return for follow-up on a specific date, and teach her how to recognize signs that indicate the child should return immediately to the health facility.

Assess feeding, including assessment of breastfeeding practices. Counsel to solve any feeding problems found. Then counsel the mother about her own health.

When a child is brought back to the clinic as requested, give follow-up care and, if necessary, reassess the child for new problems.

The IMCI guidelines address most, but not all, of the major reasons a sick child is brought to a clinic. A child returning with chronic problems or less common illnesses may require special care which is not described in this handbook. The guidelines do not describe the management of trauma or other acute emergencies due to accidents or injuries.

Although AIDS is not addressed specifically, the case management guidelines address the most common reasons children with HIV seek care: diarrhoea and respiratory infections. When a child, who is believed to have HIV, presents with any of these common illnesses, he or she can be treated the same as any child presenting with an illness. If a child's illness does not respond to the standard treatments described in this handbook, or if a child becomes severely malnourished, or returns to the clinic repeatedly, the child is referred to a hospital for special care.

Case management can only be effective to the extent that families bring their sick children to a trained health worker for care in a timely way. If a family waits to bring a child to a clinic until the child is extremely sick, or takes the child to an untrained provider, the child is more likely to die from the illness. Therefore, teaching families when to seek care for a sick child is an important part of the case management process.

The case management process is presented on two different sets of charts: one for children age 2 months up to five years, and one for children age 1 week up to 2 months. You will learn how to choose the appropriate set of charts in Chapter 2.
SUMMARY OF THE INTEGRATED CASE MANAGEMENT PROCESS

For all sick children age 1 week up to 5 years who are brought to a first-level health facility

ASSESS the child: Check for danger signs (or possible bacterial infection). Ask about main symptoms. If a main symptom is reported, assess further. Check nutrition and immunization status. Check for other problems.

CLASSIFY the child’s illnesses: Use a colour-coded triage system to classify the child’s main symptoms and his or her nutrition or feeding status.

IF URGENT REFERRAL is needed and possible

IDENTIFY URGENT PRE-REFERRAL TREATMENT(S) needed for the child’s classifications.

TREAT THE CHILD: Give urgent pre-referral treatment(s) needed.

REFER THE CHILD: Explain to the child’s caretaker the need for referral. Calm the caretaker’s fears and help resolve any problems. Write a referral note. Give instructions and supplies needed to care for the child on the way to the hospital.

IF NO URGENT REFERRAL is needed or possible

IDENTIFY TREATMENT needed for the child’s classifications: Identify specific medical treatments and/or advice.

TREAT THE CHILD: Give the first dose of oral drugs in the clinic and/or advise the child’s caretaker. Teach the caretaker how to give oral drugs and how to treat local infections at home. If needed, give immunizations.

COUNSEL THE MOTHER: Assess the child’s feeding, including breastfeeding practices, and solve feeding problems, if present. Advise about feeding and fluids during illness and about when to return to a health facility. Counsel the mother about her own health.

FOLLOW-UP care: Give follow-up care when the child returns to the clinic and, if necessary, reassess the child for new problems.
CHAPTER 2

Selecting the appropriate case management charts

FOR ALL SICK CHILDREN age 1 week up to 5 years who are brought to the clinic

ASK THE CHILD'S AGE

IF the child is from 1 week up to 2 months

USE THE CHART:
- ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT

IF the child is from 2 months up to 5 years

USE THE CHARTS:
- ASSESS AND CLASSIFY THE SICK CHILD
- TREAT THE CHILD
- COUNSEL THE MOTHER

The IMCI case management process is presented on a series of charts that show the sequence of steps and provide information for performing them. This series of charts has also been transformed into an IMCI chart booklet designed to help you carry out the case management process. The IMCI chart booklet contains three charts for managing sick children age 2 months up to 5 years, and a separate chart for managing sick young infants age 1 week up to 2 months.

Most health facilities have a procedure for registering children and identifying whether they have come because they are sick, or for some other reason, such as for a well-child visit or an immunization, or for care of an injury. When a mother brings a child because the child is sick (due to illness, not trauma) and the child is sent to you for attention, you need to know the age of the child in order to select the appropriate IMCI charts and begin the assessment process.

Depending on the procedure for registering patients at the clinic, the child's name, age and other information, such as address, may have been recorded already. If not, you may begin by asking the child's name and age.

Decide which age group the child is in:
- Age 1 week up to 2 months, or
- Age 2 months up to 5 years.

Up to 5 years means the child has not yet had his or her fifth birthday. For example, this age group includes a child who is 4 years 11 months but not a child who is 5 years old. A child who is 2 months old would be in the group 2 months up to 5 years, not in the group 1 week up to 2 months.

The case management process for sick children age 2 months up to 5 years is presented on three charts titled:
- ASSESS AND CLASSIFY THE SICK CHILD
- TREAT THE CHILD
- COUNSEL THE MOTHER
If the child is *not yet 2 months of age*, the child is considered a young infant. Management of the young infant age 1 week up to 2 months is somewhat different from older infants and children. It is described on a different chart titled:

- ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT.
CHAPTER 3

Using the case management charts and case recording forms

The IMCI case management charts and recording forms guide you through the following steps:

- Assess the sick child or sick young infant
- Classify the illness
- Identify treatment
- Treat the child or young infant
- Counsel the mother
- Give follow-up care

The case management steps are the same for all sick children from age 1 week up to 5 years. However, because signs, classifications, treatments and counselling differ between sick young infants and sick children, it is essential to start the case management process by selecting the appropriate set of IMCI charts (see Chapter 2). The charts, tables and recording forms for the sick child aged 2 months up to 5 years are briefly described below.

3.1 Assess and classify

**ASSESS AND CLASSIFY CHART**

**CASE RECORDING FORM (FRONT)**

The **ASSESS AND CLASSIFY** chart describes how to assess the child, classify the child's illnesses and identify treatments. The **ASSESS** column on the left side of the chart describes how to take a history and do a physical examination. You will note the main symptoms and signs found during the examination in the ASSESS column of the case recording form.
The **CLASSIFY** column on the **ASSESS AND CLASSIFY** chart lists clinical signs of illness and their classifications. Classify means to make a decision about the severity of the illness. For each of the child's main symptoms, you will select a category, or "classification," that corresponds to the severity of the child's illnesses. You will then write your classifications in the **CLASSIFY** column of the case recording form.

### 3.2 Identify treatment

The **IDENTIFY TREATMENT** column of the **ASSESS AND CLASSIFY** chart helps you to quickly identify treatment for the classifications written on your case recording form. Appropriate treatments are recommended for each classification. When a child has more than one classification, you must look at more than one table to find the appropriate treatments. You will write the treatments identified for each classification on the reverse side of the case recording form.

### 3.3 Treat the child

The IMCI chart titled **TREAT THE CHILD** shows how to do the treatment steps identified on the **ASSESS AND CLASSIFY** chart. **TREAT** means giving treatment in clinic, prescribing drugs or other treatments to be given at home, and also teaching the caretaker how to carry out the treatments.
3.4 Counsel the mother

Recommendations on feeding, fluids and when to return are given on the chart titled COUNSEL THE MOTHER. For many sick children, you will assess feeding and counsel the mother about any feeding problems found. For all sick children who are going home, you will advise the child’s caretaker about feeding, fluids and when to return for further care. You will write the results of any feeding assessment on the bottom of the case recording form. You will record the earliest date to return for “follow-up” on the reverse side of the case recording form. You will also advise the mother about her own health.

3.5 Give follow-up care

Several treatments in the ASSESS AND CLASSIFY chart include a follow-up visit. At a follow-up visit you can see if the child is improving on the drug or other treatment that was prescribed. The GIVE FOLLOW-UP CARE section of the TREAT THE CHILD chart describes the steps for conducting each type of follow-up visit. Headings in this section correspond to the child’s previous classification(s).
Part II
THE SICK CHILD
AGE 2 MONTHS
UP TO 5 YEARS:
ASSESS AND
CLASSIFY
CHAPTER 4
Assess and classify the sick child

A mother or other caretaker brings a sick child to the clinic for a particular problem or symptom. If you only assess the child for that particular problem or symptom, you might overlook other signs of disease. The child might have pneumonia, diarrhoea, malaria, measles, or malnutrition. These diseases can cause death or disability in young children if they are not treated.

The chart **ASSESS AND CLASSIFY THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS** describes how to assess and classify sick children so that signs of disease are not overlooked. The chart then helps you to identify the appropriate treatments for each classification. According to the chart, you should ask the mother about the child’s problem and check the child for general danger signs. Then ask about the four main symptoms: cough or difficult breathing, diarrhoea, fever and ear problem.

A child who has one or more of the main symptoms could have a serious illness. When a main symptom is present, ask additional questions to help classify the illness and identify appropriate treatment(s). Check the child for malnutrition and anaemia. Also check the child’s immunization status and assess other problems that the mother has mentioned. The next several chapters will describe these activities.

**SUMMARY OF ASSESS AND CLASSIFY**

1. Ask the mother or caretaker about the child’s problem.
2. If this is an INITIAL VISIT for the problem, follow the steps below.
   (If this is a follow-up visit for the problem, give follow-up care according to PART VII)
3. Check for general danger signs.
   - Ask the mother or caretaker about the four main symptoms:
     - cough or difficult breathing,
     - diarrhoea,
     - fever, and
     - ear problem.
   - When a main symptom is present:
     - assess the child further for signs related to the main symptom, and
     - classify the illness according to the signs which are present or absent
4. Check for signs of malnutrition and anaemia and classify the child’s nutritional status
5. Check the child’s immunization status and decide if the child needs any immunizations today.
6. Assess any other problems.

Then: Identify Treatment (PART IV), Treat the Child (PART VI), and Counsel the Mother (PART VI)
The steps on the *ASSESS AND CLASSIFY THE SICK CHILD* chart describe what you should do when a mother brings her child to the clinic because her child is sick. The chart should not be used for a well child brought for immunization or for a child with an injury or burn. When patients arrive at most clinics, clinic staff identify the reason for the child’s visit. Clinic staff obtain the child’s weight and temperature and record them on a patient chart, another written record, or on a small piece of paper. Then the mother and child see a health worker.

The *ASSESS AND CLASSIFY* chart summarizes how to assess the child, classify the child’s illnesses and identify treatments. The *ASSESS* column on the left side of the chart describes how to take a history and do a physical examination. The instructions in this column begin with *ASK THE MOTHER WHAT THE CHILD’S PROBLEMS ARE* (see Example 1).
EXAMPLE 1: TOP OF ASSESS AND CLASSIFY CHART FOR A CHILD AGE 2 MONTHS UP TO 5 YEARS

<table>
<thead>
<tr>
<th>ASSESS</th>
<th>CLASSIFY</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASK THE MOTHER WHAT THE CHILD’S PROBLEMS ARE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Determine if this is an initial or follow-up visit for this problem.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— If follow-up visit, use the follow-up instructions on TREAT THE CHILD chart.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— If initial visit, assess the child as follows:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When you see the mother, or the child’s caretaker, with the sick child:

▼ GREET THE MOTHER APPROPRIATELY AND ASK ABOUT THE CHILD
▼ LOOK TO SEE IF THE CHILD’S WEIGHT AND TEMPERATURE HAVE BEEN RecordED

Look to see if the child’s weight and temperature have been measured and recorded. If not, weigh the child and measure his or her temperature later when you assess and classify the child’s main symptoms. Do not undress or disturb the child now.

▼ ASK THE MOTHER WHAT THE CHILD’S PROBLEMS ARE

An important reason for asking this question is to open good communication with the mother. Using good communication helps to reassure the mother that her child will receive good care. When you treat the child’s illness later in the visit, you will need to teach and advise the mother about caring for her sick child at home. So it is important to have good communication with the mother from the beginning of the visit. To use good communication skills:

— **Listen carefully to what the mother tells you.** This will show her that you are taking her concerns seriously.

— **Use words the mother understands.** If she does not understand the questions you ask her, she cannot give the information you need to assess and classify the child correctly.

— **Give the mother time to answer the questions.** For example, she may need time to decide if the sign you asked about is present.

— **Ask additional questions when the mother is not sure about her answer.** When you ask about a main symptom or related sign, the mother may not be sure if it is present. Ask her additional questions to help her give clearer answers.

▼ DETERMINE IF THIS IS AN INITIAL OR FOLLOW-UP VISIT FOR THIS PROBLEM

If this is the child’s first visit for this episode of an illness or problem, then this is an initial visit.

If the child was seen a few days before for the same illness, this is a follow-up visit. A follow-up visit has a different purpose than an initial visit. During a follow-up visit, you find out if the treatment given during the initial visit has helped the child. If the child is not improving or is getting worse after a few days, refer the child to a hospital or change the child’s treatment.

How you find out if this is an initial or follow-up visit depends on how the health facility registers patients and identifies the reason for their visit. Some clinics give mothers follow-up slips that tell them when to return. In other clinics a health worker writes a follow-up note on the multi-visit card or chart. Or, when the patient registers, clinic staff ask the mother questions to find out why she has come.
The procedures for a follow-up visit are described in **PART VII**.

Your interview with a child’s caretaker begins with the questions above. If you use an IMCI case recording form, write the responses and check (✓) the appropriate spaces on the form (see Example 2). There are two types of case recording forms; one for young infants age 1 week up to 2 months, and one for children age 2 months up to 5 years. **Sample case recording forms** can be found at the back of the IMCI chart booklet and in **Annex B** of this handbook.

### EXAMPLE 2: TOP PART OF A CASE RECORDING FORM

<table>
<thead>
<tr>
<th>Name:</th>
<th>Fatima</th>
<th>Age:</th>
<th>18 months</th>
<th>Weight:</th>
<th>11.5 kg</th>
<th>Temperature:</th>
<th>37.5°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASK: What are the child's problems?</td>
<td>Cough, trouble breathing</td>
<td>Initial visit?</td>
<td>✓</td>
<td>Follow-up Visit?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CASE 1:** Fatima is 18 months old. She weighs 11.5 kg. Her temperature is 37.5°C. The health worker asked, "What are the child's problems?" The mother said "Fatima has been coughing for 6 days, and she is having trouble breathing." This is the initial visit for this illness.
CHAPTER 6
General danger signs

For ALL sick children ask the mother about the child’s problem, then
CHECK FOR GENERAL DANGER SIGNS

CHECK FOR GENERAL DANGER SIGNS

ASK:
● Is the child able to drink or breastfeed?
● Does the child vomit everything?
● Has the child had convulsions?

LOOK:
● See if the child is lethargic or unconscious.

A child with any general danger sign needs URGENT attention; complete the assessment and any pre-referral treatment immediately so referral is not delayed.

Make sure that a child with any danger sign is referred after receiving urgent pre-referral treatment.

Then ASK about main symptoms: cough and difficult breathing, diarrhoea, fever, ear problems.
CHECK for malnutrition and anaemia, immunization status and for other problems.

Moving down the left side of the ASSESS AND CLASSIFY chart, you find a box titled CHECK FOR GENERAL DANGER SIGNS. Ask the questions and look for the clinical signs described in this box.

A child with a general danger sign has a serious problem. Most children with a general danger sign need URGENT referral to hospital. They may need lifesaving treatment with injectable antibiotics, oxygen or other treatments that may not be available in a first-level health facility. Complete the rest of the assessment immediately. Urgent pre-referral treatments are described in Chapters 17 and 20.

When you check for general danger signs:

▼ ASK: IS THE CHILD ABLE TO DRINK OR BREASTFEED?

A child has the sign “not able to drink or breastfeed” if the child is not able to suck or swallow when offered a drink or breastmilk.

When you ask the mother if the child is able to drink, make sure that she understands the question. If she says that the child is not able to drink or breastfeed, ask her to describe what happens when she offers the child something to drink. For example, is the child able to take fluid into his mouth and swallow it? If you are not sure about the mother’s answer, ask her to offer the child a drink of clean water or breastmilk. Look to see if the child is swallowing the water or breastmilk.

A child who is breastfed may have difficulty sucking when his nose is blocked. If the child’s nose is blocked, clear it. If the child can breastfeed after the nose is cleared, the child does not have the danger sign, “not able to drink or breastfeed.”

▼ ASK: DOES THE CHILD VOMIT EVERYTHING?

A child who is not able to hold anything down at all has the sign “vomits everything.” What goes down comes back up. A child who vomits everything will not be able to hold
down food, fluids or oral drugs. A child who vomits several times but can hold down some fluids does not have this general danger sign.

When you ask the question, use words the mother understands. Give her time to answer. If the mother is not sure if the child is vomiting everything, help her to make her answer clear. For example, ask the mother how often the child vomits. Also ask if each time the child swallows food or fluids, does the child vomit? If you are not sure of the mother’s answers, ask her to offer the child a drink. See if the child vomits.

▼ **ASK: HAS THE CHILD HAD CONVULSIONS?**

During a convulsion, the child’s arms and legs stiffen because the muscles are contracting. The child may lose consciousness or not be able to respond to spoken directions. Ask the mother if the child has had convulsions during this current illness. Use words the mother understands. For example, the mother may know convulsions as “fits” or “spasms.”

▼ **LOOK TO SEE IF THE CHILD IS LETHARGIC OR UNCONSCIOUS.**

A lethargic child is not awake and alert when she should be. The child is drowsy and does not show interest in what is happening around him. Often the lethargic child does not look at his mother or watch your face when you talk. The child may stare blankly and appear not to notice what is going on around him. An unconscious child cannot be wakened. He does not respond when he is touched, shaken or spoken to.

Ask the mother if the child seems unusually sleepy or if she cannot wake the child. Look to see if the child wakes when the mother talks or shakes the child or when you clap your hands.

*Note: If the child is sleeping and has cough or difficult breathing, count the number of breaths first before you try to wake the child (see Chapter 7).*

On the case recording form, circle any general danger signs that are found, and check (√) the appropriate answer in the CLASSIFY column (see Example 3).

### Example 3: Top Part of a Recording Form with General Danger Signs

<table>
<thead>
<tr>
<th>MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong> Fatima</td>
</tr>
<tr>
<td><strong>ASK:</strong> What are the child’s problems?</td>
</tr>
<tr>
<td><strong>ASSESS</strong> (Circle all signs present)</td>
</tr>
<tr>
<td><strong>CHECK FOR GENERAL DANGER SIGNS</strong></td>
</tr>
<tr>
<td>NOT ABLE TO DRINK OR BREASTFEED</td>
</tr>
<tr>
<td>VOMITS EVERYTHING</td>
</tr>
<tr>
<td>CONVULSIONS</td>
</tr>
<tr>
<td>General danger signs present?</td>
</tr>
<tr>
<td>Remember to use danger sign when selecting classifications</td>
</tr>
</tbody>
</table>

**CASE 1:** Fatima is 18 months old. She weighs 11.5 kg. Her temperature is 37.5 °C. The health worker asked, “What are the child’s problems?” The mother said “Fatima has been coughing for 6 days, and she is having trouble breathing.” This is the initial visit for this illness.

The health worker checked Fatima for general danger signs. The mother said that Fatima is able to drink. She has not been vomiting. She has not had convulsions during this illness. The health worker asked, “Does fatima seem unusually sleepy?” The mother said, “Yes.” The health worker clapped his hands. He asked the mother to shake the child. Fatima opened her eyes, but did not look around. The health worker talked to Fatima, but she did not watch his face. She stared blankly and appeared not to notice what was going on around her.

**IF THE CHILD HAS A GENERAL DANGER SIGN, COMPLETE THE REST OF THE ASSESSMENT IMMEDIATELY. THIS CHILD HAS A SEVERE PROBLEM. THERE MUST BE NO DELAY IN HIS OR HER TREATMENT.**
CHAPTER 7

Cough or difficult breathing

For ALL sick children ask the mother about the child's problem, check for general danger signs
and then

ASK: DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?

IF NO

IF YES

IF YES, ASK:  LOOK, LISTEN, FEEL:
- For how long?
- Count the breaths in one minute.
- Look for chest indrawing
- Look and listen for stridor

CHILD MUST BE CALM

CLASSIFY the child's illness using the colour-coded classification table for cough or difficult breathing.

If the child is:  Fast breathing is:
- 2 months up to 12 months 50 breaths per minute or more
- 12 months up to 5 years 40 breaths per minute or more

Then ASK about the next main symptoms: diarrhoea, fever, ear problems. CHECK for malnutrition and anaemia, immunization status and for other problems

Respiratory infections can occur in any part of the respiratory tract such as the nose, throat, larynx, trachea, air passages or lungs. A child with cough or difficult breathing may have pneumonia or another severe respiratory infection. Pneumonia is an infection of the lungs. Both bacteria and viruses can cause pneumonia. In developing countries, pneumonia is often due to bacteria. The most common are Streptococcus pneumoniae and Hemophilus influenzae. Children with bacterial pneumonia may die from hypoxia (too little oxygen) or sepsis (generalized infection).

Many children are brought to the clinic with less serious respiratory infections. Most children with cough or difficult breathing have only a mild infection. For example, a child who has a cold may cough because nasal discharge drips down the back of the throat. Or the child may have a viral infection of the bronchi called bronchitis. These children are not seriously ill. They do not need treatment with antibiotics. Their families can manage them at home.

You need to identify the few, very sick children with cough or difficult breathing who need treatment with antibiotics. Fortunately, you can identify almost all cases of pneumonia by checking for these two clinical signs: fast breathing and chest indrawing.
When children develop pneumonia, their lungs become stiff. One of the body's responses to stiff lungs and hypoxia (too little oxygen) is fast breathing. When the pneumonia becomes more severe, the lungs become even stiffer. Chest indrawing may develop. Chest indrawing is a sign of severe pneumonia.

### 7.1 How to assess a child with cough or difficult breathing

Moving down the left side of the *ASSESS AND CLASSIFY* chart, you find the first main symptom box. Each main symptom box contains two parts: an assessment section on the left side and a colour-coded classification table on the right. The assessment section lists questions and clinical signs under the headings ask, look, listen, check and feel.

Before entering a main symptom box, ask if the child has the main symptom. For example, ask, "Does the child have cough or difficult breathing?" If the answer is NO, leave the box and move down the chart to the next main symptom box. If the answer is YES, ask the questions and check the clinical signs in the assessment section of the box. Then follow the classify arrow across the page to the classification table.

For ALL sick children:

**▼ ASK: DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?**

**Difficult breathing** is any unusual pattern of breathing. Mothers describe this in different ways. They may say that their child's breathing is "fast" or "noisy" or "interrupted."

If the mother answers NO, look to see if you think the child has cough or difficult breathing. If the child does not have cough or difficult breathing, ask about the next main symptom, diarrhoea. Do not assess the child further for signs related to cough or difficult breathing.

If the mother answers YES, ask the next question.

**▼ ASK: FOR HOW LONG?**

A child who has had cough or difficult breathing for more than 30 days has a chronic cough. This may be a sign of tuberculosis, asthma, whooping cough or another problem.

**▼ COUNT THE BREATHS IN ONE MINUTE**

You must count the breaths the child takes in one minute to decide if the child has fast breathing. The child must be quiet and calm when you look and listen to his breathing. If the child is frightened, crying or angry, you will not be able to obtain an accurate count of the child's breaths.

Tell the mother you are going to count her child's breathing. Remind her to keep her child calm. If the child is sleeping, do not wake the child. To count the number of breaths in one minute. Use a watch with a second hand or a digital watch. Look for breathing movement anywhere on the child's chest or abdomen.

Usually you can see breathing movements even on a child who is dressed. If you cannot see this movement easily, ask the mother to lift the child's shirt. If the child starts to cry, ask the mother to calm the child before you start counting. If you are not sure about the number of breaths you counted (for example, if the child was actively moving and it was difficult to watch the chest, or if the child was upset or crying), repeat the count.

The cut-off for fast breathing depends on the child's age. Normal breathing rates are higher in children age 2 months up to 12 months than in children age 12 months up to 5 years. For this reason, the cut-off for identifying fast breathing is higher in children 2 months up to 12 months than in children age 12 months up to 5 years.
If the child is: if you count:  The child has fast breathing

| 2 months up to 12 months:          | 50 breaths per minute or more |
| 12 months up to 5 years:           | 40 breaths per minute or more. |

Note: The child who is exactly 12 months old has fast breathing if you count 40 breaths per minute or more.

Before you look for the next two signs—chest indrawing and stridor—watch the child to determine when the child is breathing IN and when the child is breathing OUT.

▼ LOOK FOR CHEST INDRAWING

If you did not lift the child’s shirt when you counted the child’s breaths, ask the mother to lift it now.

Look for chest indrawing when the child breathes IN. Look at the lower chest wall (lower ribs). The child has chest indrawing if the lower chest wall goes IN when the child breathes IN. Chest indrawing occurs when the effort the child needs to breathe in is much greater than normal. In normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the child breathes IN. When chest indrawing is present, the lower chest wall goes IN when the child breathes IN.

If you are not sure that chest indrawing is present, look again. If the child’s body is bent at the waist, it is hard to see the lower chest wall move. Ask the mother to change the child’s position so he is lying flat in her lap. If you still do not see the lower chest wall go IN when the child breathes IN, the child does not have chest indrawing. For chest indrawing to be present, it must be clearly visible and present all the time. If you only see chest indrawing when the child is crying or feeding, the child does not have chest indrawing.

If only the soft tissue between the ribs goes in when the child breathes in (also called intercostal indrawing or intercostal retractions), the child does not have chest indrawing. In this assessment, chest indrawing is lower chest wall indrawing. This is the same as “subcostal indrawing” or “subcostal retractions.” It does not include “intercostal indrawing.”

▼ LOOK AND LISTEN FOR STRIDOR

Stridor is a harsh noise made when the child breathes IN. Stridor happens when there is a swelling of the larynx, trachea or epiglottis. These conditions are often called croup. This swelling interferes with air entering the lungs. It can be life-threatening when the swelling causes the child’s airway to be blocked. A child who has stridor when calm has a dangerous condition.

To look and listen for stridor, look to see when the child breathes IN. Then listen for stridor. Put your ear near the child’s mouth because stridor can be difficult to hear. Sometimes you will hear a wet noise if the child’s nose is blocked. Clear the nose, and listen again. A child who is not very ill may have stridor only when he is crying or upset. Be sure to look and listen for stridor when the child is calm.

You may hear a wheezing noise when the child breathes OUT. This is not stridor.
7.2 How to classify cough or difficult breathing

CLASSIFY means to make a decision about the severity of the illness. For each of the child's main symptoms, you will select a category, or "classification," that corresponds to the severity of the disease. Classifications are not exact disease diagnoses. Instead, they are categories that are used to determine appropriate action or treatment.

Each classification table on the ASSESS AND CLASSIFY chart lists clinical signs of illness and their classifications. The tables are divided into three columns titled signs, classify as, and treatment. Most classification tables also have three rows. If the chart is printed in colour, each row is coloured pink, yellow or green. The coloured rows signify the severity of the illness.

To use a classification table, start at the top of the SIGNS column on the left side of the table. Read down the column and decide if the child has the sign or not. When you reach a sign that the child has, stop. The child will be classified in that row. In this way, you will always assign the child to the more serious classification.

### EXAMPLE 4: CLASSIFICATION TABLE FOR COUGH OR DIFFICULT BREATHING

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Any general danger sign or</td>
<td>SEVERE PNEUMONIA OR VERY SEVERE DISEASE</td>
<td>➤ Give first dose of an appropriate antibiotic.</td>
</tr>
<tr>
<td>• Chest indrawing or</td>
<td></td>
<td>➤ Refer URGENTLY to hospital.</td>
</tr>
<tr>
<td>• Stridor in calm child.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Fast breathing</td>
<td>PNEUMONIA</td>
<td>➤ Give an appropriate oral antibiotic for 5 days.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ Soothe the throat and relieve the cough with a safe remedy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ Advise mother when to return immediately.</td>
</tr>
<tr>
<td>No signs of pneumonia, or very severe disease.</td>
<td>NG PNEUMONIA: COUGH OR COLD</td>
<td>➤ If coughing more than 30 days, refer for assessment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ Soothe the throat and relieve the cough with a safe remedy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ Advise mother when to return immediately.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ Follow-up in 5 days if not improving.</td>
</tr>
</tbody>
</table>

There are three possible classifications for a child with cough or difficult breathing: SEVERE PNEUMONIA OR VERY SEVERE DISEASE, PNEUMONIA, and NO PNEUMONIA: COUGH OR COLD (see Example 4). To classify cough or difficult breathing:

1. Look at the signs in the pink (or top) row. Does the child have a general danger sign? Does the child have chest indrawing or stridor in a calm child? If the child has a general danger sign or any of the other signs listed in the pink row, select the severe classification, SEVERE PNEUMONIA OR VERY SEVERE DISEASE.

2. If the child does not have the severe classification, look at the yellow (or second) row. Does the child have fast breathing? If the child has fast breathing, a sign in the yellow row, and the child does not have the severe classification, select the classification in the yellow row, PNEUMONIA.

3. If the child does not have any of the signs in the pink or yellow row, look at the green (or bottom) row, and select the classification NO PNEUMONIA: COUGH OR COLD.

The classifications for cough or difficult breathing can be described as follows:
SEVERE PNEUMONIA OR VERY SEVERE DISEASE

A child with cough or difficult breathing and with any of the following signs—any general danger sign, chest indrawing or stridor in a calm child—is classified as having SEVERE PNEUMONIA OR VERY SEVERE DISEASE.

A child with chest indrawing usually has severe pneumonia. Or the child may have another serious acute lower respiratory infection such as bronchiolitis, pertussis, or a wheezing problem. Chest indrawing develops when the lungs become stiff. The effort the child needs to breathe in is much greater than normal.

A child with chest indrawing has a higher risk of death from pneumonia than the child who has fast breathing and no chest indrawing. If the child is tired, and if the effort the child needs to expand the stiff lungs is too great, the child’s breathing slows down. Therefore, a child with chest indrawing may not have fast breathing. Chest indrawing may be the child’s only sign of severe pneumonia.

A child classified as having SEVERE PNEUMONIA OR VERY SEVERE DISEASE is seriously ill. He or she needs urgent referral to a hospital for treatments such as oxygen, a bronchodilator, or injectable antibiotics. Before the child leaves, give the first dose of an appropriate antibiotic. The antibiotic helps prevent severe pneumonia from becoming worse. It also helps treat other serious bacterial infections such as sepsis or meningitis. In Parts IV and V you will read about how to identify and give urgent pre-referral treatments.

PNEUMONIA

A child with cough or difficult breathing who has fast breathing and no general danger signs, no chest indrawing and no stridor when calm is classified as having PNEUMONIA.

A child with PNEUMONIA needs treatment with an appropriate antibiotic. In Parts IV, V and VI you will read about how to identify and give an appropriate antibiotic, and how to teach caretakers to give treatments at home.

NO PNEUMONIA: COUGH OR COLD

A child with cough or difficult breathing who has no general danger signs, no chest indrawing, no stridor when calm and no fast breathing is classified as having NO PNEUMONIA: COUGH OR COLD.

A child with NO PNEUMONIA: COUGH OR COLD does not need an antibiotic. The antibiotic will not relieve the child’s symptoms. It will not prevent the cold from developing into pneumonia. Instead, give the mother advice about good home care.

A child with a cold normally improves in one to two weeks. However, a child who has a chronic cough (a cough lasting more than 30 days) may have tuberculosis, asthma, whooping cough or another problem. A child with a chronic cough needs to be referred to hospital for further assessment.

As you assess and classify cough or difficult breathing, circle the signs found and write the classification on the case recording form (see Example 5).
### EXAMPLE 5: TOP PART OF RECORDING FORM WITH THE MAIN SYMPTOM COUGH OR DIFFICULT BREATHING

<table>
<thead>
<tr>
<th>MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Fatima</td>
</tr>
<tr>
<td>Age: 18 months</td>
</tr>
<tr>
<td>Weight: 11.5 kg</td>
</tr>
<tr>
<td>Temperature: 37.5 °C</td>
</tr>
<tr>
<td>Initial visit? Yes.</td>
</tr>
<tr>
<td>Follow-up Visit?</td>
</tr>
<tr>
<td><strong>ASK: What are the child's problems?</strong> cough, trouble breathing</td>
</tr>
<tr>
<td><strong>ASSESS (Circle all signs present)</strong></td>
</tr>
<tr>
<td>CHECK FOR GENERAL DANGER SIGNS</td>
</tr>
<tr>
<td>NOT ABLE TO DRINK OR BREASTFEED</td>
</tr>
<tr>
<td>VOMITS EVERYTHING</td>
</tr>
<tr>
<td>CONVULSIONS</td>
</tr>
<tr>
<td>LETHARGIC OR UNCONSCIOUS</td>
</tr>
<tr>
<td><strong>DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?</strong></td>
</tr>
<tr>
<td>• For how long? 6 Days</td>
</tr>
<tr>
<td>• Count the breaths in one minute: 41 breaths per minute</td>
</tr>
<tr>
<td>• Look for chest indrawing.</td>
</tr>
<tr>
<td>• Look and listen for stridor.</td>
</tr>
<tr>
<td><strong>CLASSIFY</strong></td>
</tr>
<tr>
<td>General danger signs present? Yes ✓ No.</td>
</tr>
<tr>
<td>Remember to use danger sign when selecting classifications</td>
</tr>
<tr>
<td><strong>Severe Pneumonia or Very Severe Disease</strong></td>
</tr>
</tbody>
</table>

**CASE 1:** Fatima is 18 months old. She weighs 11.5 kg. Her temperature is 37.5 °C. The health worker asked, "What are the child's problems?" The mother said "Fatima has been coughing for 6 days, and she is having trouble breathing." This is the initial visit for this illness.

The health worker checked Fatima for general danger signs. The mother said that Fatima is able to drink. She has not been vomiting. She has not had convulsions during this illness. The health worker asked, "Does Fatima seem unusually sleepy?" The mother said, "Yes." The health worker clapped his hands. He asked the mother to shake the child. Fatima opened her eyes, but did not look around. The health worker talked to Fatima, but she did not watch his face. She stared blankly and appeared not to notice what was going on around her.

The health worker asked the mother to lift Fatima's shirt. He then counted the number of breaths the child took in a minute. He counted 41 breaths per minute. The health worker did not see any chest indrawing. He did not hear stridor.
For ALL sick children ask the mother about the child’s problem, check for general danger signs, ask about cough or difficult breathing and then
ASK: DOES THE CHILD HAVE DIARRHOEA?

IF NO

IF YES

Does the child have diarrhoea?

IF YES, ASK:
- For how long?
- Is there blood in the stool

LOOK, LISTEN, FEEL:
- Look at the child’s general condition. Is the child:
  - Lethargic or unconscious?
  - Restless or irritable?
- Look for sunken eyes.
- Offer the child fluid. Is the child:
  - Not able to drink or drinking poorly?
  - Drinking eagerly, thirsty?
- Pinch the skin of the abdomen. Does it go back:
  - Very slowly (longer than 2 seconds)?
  - Slowly?

Classify DIARRHOEA

CLASSIFY the child’s illness using the colour-coded classification tables for diarrhoea.

Then ASK about the next main symptoms: fever, ear problem, and CHECK for malnutrition and anaemia, immunization status and for other problems.

---

Diarrhoea occurs when stools contain more water than normal. Diarrhoea is also called loose or watery stools. It is common in children, especially those between 6 months and 2 years of age. It is more common in babies under 6 months who are drinking cow’s milk or infant formulas. Frequent passing of normal stools is not diarrhoea. The number of stools normally passed in a day varies with the diet and age of the child. In many regions diarrhoea is defined as three or more loose or watery stools in a 24-hour period.

Mothers usually know when their children have diarrhoea. They may say that the child’s stools are loose or watery. Mothers may use a local word for diarrhoea. Babies who are exclusively breastfed often have stools that are soft; this is not diarrhoea. The mother of a breastfed baby can recognize diarrhoea because the consistency or frequency of the stools is different than normal.
What are the types of diarrhoea?

Most diarrhoeas which cause dehydration are *loose* or *watery*. Cholera is one example of loose or watery diarrhoea. Only a small proportion of all loose or watery diarrhoeas are due to cholera.

If an episode of diarrhoea lasts less than 14 days, it is *acute* diarrhoea. Acute watery diarrhoea causes dehydration and contributes to malnutrition. The death of a child with acute diarrhoea is usually due to dehydration.

If the diarrhoea lasts 14 days or more, it is *persistent* diarrhoea. Up to 20% of episodes of diarrhoea become persistent. Persistent diarrhoea often causes nutritional problems that contribute to deaths in children who have diarrhoea.

Diarrhoea with blood in the stool, with or without mucus, is called *dysentery*. The most common cause of dysentery is *Shigella* bacteria. Amoebic dysentery is not common in young children. A child may have both watery diarrhoea and dysentery.

8.1 How to assess a child with diarrhoea

Ask about diarrhoea in *ALL* children:

▼ **ASK: DOES THE CHILD HAVE DIARRHOEA?**

Use words for diarrhoea the mother understands. If the mother answers NO, ask about the next main symptom, fever. You do not need to assess the child further for signs related to diarrhoea.

If the mother answers YES, or if the mother said earlier that diarrhoea was the reason for coming to the clinic, record her answer. Then assess the child for signs of dehydration, persistent diarrhoea and dysentery.

▼ **ASK: FOR HOW LONG?**

Diarrhoea which lasts *14 days or more* is persistent diarrhoea. Give the mother time to answer the question. She may need time to recall the exact number of days.

▼ **ASK: IS THERE BLOOD IN THE STOOL?**

Ask the mother if she has seen blood in the stools at any time during this episode of diarrhoea.

Next, check for signs of *dehydration*. When a child becomes dehydrated, he is at first restless and irritable. If dehydration continues, the child becomes lethargic or unconscious. As the child’s body loses fluids, the eyes may look sunken. When pinched, the skin will go back slowly or very slowly.

▼ **LOOK AT THE CHILD’S GENERAL CONDITION**

When you checked for general danger signs, you checked to see if the child was lethargic or unconscious. If the child is *lethargic or unconscious*, he has a general danger sign. Remember to use this general danger sign when you classify the child’s diarrhoea.

A child has the sign *restless and irritable* if the child is restless and irritable all the time or every time he is touched or handled. If an infant or child is calm when breastfeeding but again restless and irritable when he stops breastfeeding, he has the sign “restless and irritable”. Many children are upset just because they are in the clinic. Usually these children can be consoled and calmed. They do not have the sign “restless and irritable”.
▼ LOOK FOR SUNKEN EYES

The eyes of a child who is dehydrated may look sunken. Decide if you think the eyes are sunken. Then ask the mother if she thinks her child’s eyes look unusual. Her opinion helps you confirm that the child’s eyes are sunken.

*Note:* In a severely malnourished child who is visibly wasted (that is, who has marasmus), the eyes may always look sunken, even if the child is not dehydrated. Even though the sign sunken eyes is less reliable in a visibly wasted child, you should still use the sign to classify the child’s dehydration.

▼ OFFER THE CHILD FLUID

Ask the mother to offer the child some water in a cup or spoon. Watch the child drink.

A child is **not able to drink** if he is not able to take fluid in his mouth and swallow it. For example, a child may not be able to drink because he is lethargic or unconscious. Or the child may not be able to suck or swallow.

A child is **drinking poorly** if the child is weak and cannot drink without help. He may be able to swallow only if fluid is put in his mouth.

A child has the sign **drinking eagerly, thirsty** if it is clear that the child wants to drink. Look to see if the child reaches out for the cup or spoon when you offer him water. When the water is taken away, see if the child is unhappy because he wants to drink more.

If the child takes a drink only with encouragement and does not want to drink more, he does not have the sign “drinking eagerly, thirsty.”

▼ PINCH THE SKIN OF THE ABDOMEN

Ask the mother to place the child on the examining table so that the child is flat on his back with his arms at his sides (not over his head) and his legs straight. Or, ask the mother to hold the child so he is lying flat in her lap.

Locate the area on the child’s abdomen halfway between the umbilicus and the side of the abdomen. To do the skin pinch, use your thumb and first finger. Do not use your fingertips because this will cause pain. Place your hand so that when you pinch the skin, the fold of skin will be in a line up and down the child’s body and not across the child’s body. Firmly pick up all of the layers of skin and the tissue under them. Pinch the skin for one second and then release it. When you release the skin, look to see if the skin pinch goes back:

- very slowly (longer than 2 seconds)
- slowly (skin stays up even for a brief instant)
- immediately

If the skin stays up for even a brief time after you release it, decide that the skin pinch goes back slowly.

*Note:* In a child with marasmus (severe malnutrition), the skin may go back slowly even if the child is not dehydrated. In an overweight child, or a child with oedema, the skin may go back immediately even if the child is dehydrated. Even though skin pinch is less reliable in these children, still use it to classify the child’s dehydration.
8.2 How to classify diarrhoea

Some main symptom boxes in the ASSESS AND CLASSIFY chart contain more than one classification table. For example, if a child has the main symptom of diarrhoea, the child can be classified for dehydration, for persistent diarrhoea and for dysentery. When classifying diarrhoea:

- all children with diarrhoea are classified for dehydration
- if the child has had diarrhoea for 14 days or more, classify the child for persistent diarrhoea
- if the child has blood in the stool, classify the child for dysentery.

8.2.1 Classify Dehydration

There are three possible classifications for dehydration in a child with diarrhoea: SEVERE DEHYDRATION, SOME DEHYDRATION and NO DEHYDRATION (see Example 6). You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

**EXAMPLE 6: CLASSIFICATION TABLE FOR DEHYDRATION**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| Two of the following signs:  
  • Lethargic or unconscious  
  • Sunken eyes  
  • Not able to drink or drinking poorly  
  • Skin pinch goes back very slowly | SEVERE DEHYDRATION | ➤ If child has no other severe classification:  
  — Give fluid for severe dehydration (Plan C).  
  — OR  
  — If child also has another severe classification:  
  — Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.  
  — Advise the mother to continue breastfeeding | ➤ If child is 2 years or older and there is cholera in your area, give antibiotic for cholera. |
| Two of the following signs:  
  • Restless, irritable  
  • Sunken eyes  
  • Drinks eagerly, thirsty  
  • Skin pinch goes back slowly | SOME DEHYDRATION | ➤ Give fluid and food for some dehydration (Plan B).  
  ➤ If child also has a severe classification:  
  — Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.  
  — Advise the mother to continue breastfeeding | ➤ Advise mother when to return immediately.  
  ➤ Follow-up in 5 days if not improving. |
| Not enough signs to classify as some or severe dehydration | NO DEHYDRATION | ➤ Give fluid and food to treat diarrhoea at home (Plan A).  
  ➤ Advise mother when to return immediately.  
  ➤ Follow-up in 5 days if not improving. |

**SEVERE DEHYDRATION**

If the child has *two or more* of the following signs—lethargic or unconscious, not able to drink or drinking poorly, sunken eyes, skin pinch goes back very slowly—classify as SEVERE DEHYDRATION.

Any child with dehydration needs extra fluids. A child classified with SEVERE DEHYDRATION needs fluids quickly. Treat with IV (intravenous) fluids. The box "Plan C: Treat Severe Dehydration Quickly" on the TREAT chart describes how to give fluids to severely dehydrated children.
If the child does not have signs of SEVERE DEHYDRATION, look at the next row. Does the child have signs of SOME DEHYDRATION? If the child has two or more of the following signs—restless, irritable; drinks eagerly, thirsty; sunken eyes; skin pinch goes back slowly—classify as SOME DEHYDRATION.

If a child has one sign in the pink (top) row and one sign in the yellow (middle) row, classify the child in the yellow row (SOME DEHYDRATION).

A child who has SOME DEHYDRATION needs fluid and foods. Treat the child with ORS solution. In addition to fluid, the child with SOME DEHYDRATION needs food. Breastfed children should continue breastfeeding. Other children should receive their usual milk or some nutritious food after 4 hours of treatment with ORS. The treatment is described in the box “Plan B: Treat Some Dehydration with ORS”.

NO DEHYDRATION

A child who does not have two or more signs in the pink or yellow row is classified as having NO DEHYDRATION.

This child needs extra fluid and foods to prevent dehydration. The three rules of home treatment are: 1) Give extra fluid, 2) Continue feeding, and 3) Return immediately if the child develops danger signs. The treatment box called “Plan A, Treat Diarrhoea At Home” describes what fluids to teach the mother to give and how much she should give. A child with NO DEHYDRATION also needs food.

8.2.2 Classify Persistent Diarrhoea

After you classify dehydration, classify the child for persistent diarrhoea if the child has had diarrhoea for 14 days or more. There are two possible classifications for persistent diarrhoea: SEVERE PERSISTENT DIARRHOEA and PERSISTENT DIARRHOEA (see Example 7). You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

**EXAMPLE 7: CLASSIFICATION TABLE FOR PERSISTENT DIARRHOEA**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| Dehydration present | SEVERE PERSISTENT DIARRHOEA | - Treat dehydration before referral unless the child has another severe classification.  
| No dehydration   | PERSISTENT DIARRHOEA      | - Advise the mother on feeding a child who has PERSISTENT DIARRHOEA.  
|                 |                           | - Follow-up in 5 days.                                                             |

**SEVERE PERSISTENT DIARRHOEA**

If a child has had diarrhoea for 14 days or more and also has some or severe dehydration, classify the child’s illness as SEVERE PERSISTENT DIARRHOEA. Children who are classified with SEVERE PERSISTENT DIARRHOEA should be referred to hospital. These children need special attention to help prevent loss of fluid. They may need a change in diet. They may also need laboratory tests to identify the cause of the diarrhoea.

Treat the child’s dehydration before referral unless the child has another severe classification. Treating dehydration in children with another severe disease can be difficult. These children should be treated in a hospital.
PERSISTENT DIARRHOEA

A child who has had diarrhoea for 14 days or more and who has no signs of dehydration is classified as having PERSISTENT DIARRHOEA. Special feeding is the most important treatment for persistent diarrhoea. Feeding recommendations for persistent diarrhoea are described in Chapter 29.

8.2.3 Classify Dysentery

There is only one classification for dysentery: DYSENTERY (see Example 8). You will read about how to identify treatments and to treat children with DYSENTERY in Parts IV, V and VI.

**EXAMPLE 8: CLASSIFICATION TABLE FOR DYSENTERY**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Blood in the stool</td>
<td>DYSENTERY</td>
<td>▶ Treat for 5 days with an oral antibiotic recommended for <em>Shigella</em> in your area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Follow-up in 2 days.</td>
</tr>
</tbody>
</table>

**Explanation**

Classify a child with diarrhoea and blood in the stool as having DYSENTERY. A child with dysentery should be treated for dehydration. You should also give an antibiotic recommended for *Shigella* in your area.

You can assume that *Shigella* caused the dysentery because:

- *Shigella* causes about 60% of dysentery cases seen in clinics.
- *Shigella* causes nearly all cases of life-threatening dysentery.
- Finding the actual cause of the dysentery requires a stool culture for which it can take at least 2 days to obtain the laboratory results.

As you assess and classify diarrhoea, circle the signs found and write the classification(s) on the case recording form (see Example 9).
### Example 9: Top Part of the Recording Form with the Main Symptom Diarrhoea

#### Management of the Sick Child: Age 2 Months Up to 5 Years

<table>
<thead>
<tr>
<th>Name: Fatima</th>
<th>Age: 18 months</th>
<th>Weight: 11.5 kg</th>
<th>Temperature: 37.5°C</th>
</tr>
</thead>
</table>

**ASK:** What are the child’s problems? **cough, trouble breathing**

**Initial visit?** ✓ **Follow-up Visit?**

**CHECK FOR GENERAL DANGER SIGNS**

NOT ABLE TO DRINK OR BREASTFEED

VOMITS EVERYTHING

CONVULSIONS

LETHARGIC OR UNCONSCIOUS

General danger signs present? Yes ✓ No

Remember to use danger sign when selecting classifications

**DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?**

- Yes ✓ No

  - Count the breaths in one minute: 41 breaths per minute. Fast breathing?
  - Look for chest indrawing.
  - Look for stridor.

**DOES THE CHILD HAVE DIARRHOEA?**

- Yes ✓ No

  - Look at the child’s general condition.
  - Lethargic or unconscious?
  - Redness?
  - Look for sunken eyes.
  - Dry or not able to drink or drinking poorly?
  - Drunking urgently, thirsty?
  - Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)?

#### Case 1:

Fatima is 18 months old. She weighs 11.5 kg. Her temperature is 37.5°C. The health worker asked, “What are the child’s problems?” The mother said “Fatima has been coughing for 6 days, and she is having trouble breathing.” This is the initial visit for this illness.

The health worker checked Fatima for general danger signs. The mother said that Fatima is able to drink. She has not been vomiting. She has not had convulsions during this illness. The health worker asked, “Does Fatima seem unusually sleepy?” The mother said, “Yes.” The health worker clapped his hands. He asked the mother to shake the child. Fatima opened her eyes, but did not look around. The health worker talked to Fatima, but she did not watch his face. She stared blankly and appeared not to notice what was going on around her.

The health worker asked the mother to lift Fatima’s shirt. He then counted the number of breaths the child took in a minute. He counted 41 breaths per minute. The health worker did not see any chest indrawing. He did not hear stridor.

The health worker asked, “Does the child have diarrhoea?” The mother said, “Yes, for 3 days.” There was no blood in the stool. Fatima’s eyes looked sunken. The health worker asked, “Do you notice anything different about Fatima’s eyes?” The mother said, “Yes.” He gave the mother some clean water in a cup and asked her to offer it to Fatima. When offered the cup, Fatima would not drink. When pinched, the skin of Fatima’s abdomen went back slowly.
CHAPTER 9
Fever

For ALL sick children ask the mother about the child's problem, check for general danger signs, ask about cough or difficult breathing, diarrhea and then
ASK: DOES THE CHILD HAVE FEVER?

IF NO

IF YES

Does the child have fever?
(by history or feels hot or temperature 37.5 °C** or above)

IF YES:
Decide the Malaria Risk: high or low

THEN ASK:
- For how long?
- If more than 7 days, has fever been present every day?
- Has the child had measles within the last 3 months?

LOOK AND FEEL:
- Look or feel for stiff neck.
- Look for runny nose.
- Look for signs of MEASLES
  - Generalized rash and
  - One of these: cough, runny nose, or red eyes.

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

CLASSIFY the child's illness using the colour-coded classification tables for fever.

Then ASK about the next main symptoms: ear problem, and CHECK for malnutrition and anaemia, immunization status and for other problems.

A child with fever may have malaria, measles or another severe disease. Or, a child with fever may have a simple cough or cold or other viral infection.

Malaria
Malaria is caused by parasites in the blood called "plasmodia." They are transmitted through the bite of anopheline mosquitoes. Four species of plasmodia can cause malaria, but the most dangerous one is Plasmodium falciparum.
Fever is the main symptom of malaria. It can be present all the time or go away and return at regular intervals. Other signs of falciparum malaria are shivering, sweating and vomiting. A child with malaria may have chronic anaemia (with no fever) as the only sign of illness.

Signs of malaria can overlap with signs of other illnesses. For example, a child may have malaria and cough with fast breathing, a sign of pneumonia. This child needs treatment for both falciparum malaria and pneumonia. Children with malaria may also have diarrhoea. They need an antimalarial and treatment for the diarrhoea.

In areas with very high malaria transmission, malaria is a major cause of death in children. A case of uncomplicated malaria can develop into severe malaria as soon as 24 hours after the fever first appears. Severe malaria is malaria with complications such as cerebral malaria or severe anaemia. The child can die if he does not receive urgent treatment.

**Measles**

Fever and a generalized rash are the main signs of measles. Measles is highly infectious. Maternal antibody protects young infants against measles for about 6 months. Then the protection gradually disappears. Most cases occur in children between 6 months and 2 years of age. Overcrowding and poor housing increase the risk of measles occurring early.

Measles is caused by a virus. It infects the skin and the layer of cells that line the lung, gut, eye, mouth and throat. The measles virus damages the immune system for many weeks after the onset of measles. This leaves the child at risk for other infections.

Complications of measles occur in about 30% of all cases. The most important are:

- diarrhoea (including dysentery and persistent diarrhoea)
- pneumonia
- stridor
- mouth ulcers
- ear infection and
- severe eye infection (which may lead to corneal ulceration and blindness).

Encephalitis (a brain infection) occurs in about one in one thousand cases. A child with encephalitis may have a general danger sign such as convulsions or lethargic or unconscious.

Measles contributes to malnutrition because it causes diarrhoea, high fever and mouth ulcers. These problems interfere with feeding. Malnourished children are more likely to have severe complications due to measles. This is especially true for children who are deficient in vitamin A. One in ten severely malnourished children with measles may die. For this reason, it is very important to help the mother to continue to feed her child during measles.

### 9.1 How to assess a child with fever

The assessment box for fever has two parts. The top part of the box (above the broken line) describes how to assess the child for signs of malaria, measles, meningitis and other causes of fever. The bottom part of the box describes how to assess the child for signs of measles complications, if the child has measles now or within the last 3 months.

Ask about (or measure) fever in **ALL** sick children.

**ASK: DOES THE CHILD HAVE FEVER?**

Check to see if the child has a history of fever, feels hot or has a temperature of 37.5°C or above.
The child has a history of fever if the child has had any fever with this illness. Use words for “fever” that the mother understands. Make sure the mother understands what fever is. For example, ask the mother if the child’s body has felt hot.

Feel the child’s stomach or axilla (underarm) and determine if the child feels hot. Look to see if the child’s temperature was measured today and recorded on the child’s chart. If the child has a temperature of 37.5°C or above, the child has fever. If the child’s temperature has not been measured, and you have a thermometer, measure the child’s temperature.

If the child has NO fever (by history, feel, or measured temperature of 37.5°C or above), ask about the next main symptom, ear problem. Do not assess the child for signs related to fever.

If the child HAS fever (by history, feel, or measured temperature of 37.5°C or above), assess the child for additional signs related to fever. History of fever is enough to assess the child for fever. Assess the child’s fever even if the child does not have a temperature of 37.5°C or above or does not feel hot now.

\[ \text{\textbf{\textit{DECIDE THE MALARIA RISK}} } \]

To classify and treat children with fever, you must know the malaria risk in your area.

- **There is a high malaria risk** in areas where more than 5% of the fever cases in children are due to malaria.
- **There is a low malaria risk** in areas where 5% or less of the fever cases in children are due to malaria.
- **There is no malaria risk** in areas where no transmission of malaria occurs.

Malaria risk can vary by season. The breeding conditions for mosquitoes are limited or absent during the dry season. As a result, during the dry season, the risk of malaria is usually low. Areas where malaria occurs, but only rarely, are also identified as low malaria risk.

For example, in the Gambia during the rainy season, conditions are favourable for mosquitoes to breed. The malaria risk during rainy season is high. Many children develop malaria. They present with fever, anaemia, and signs of cerebral malaria. During the dry season, there are almost no cases of malaria. Therefore, during dry season the malaria risk is low.

There are parts of Africa where malaria commonly occurs during all or most of the year. In these areas, the malaria risk is high all year.

Find out the risk of malaria for your area. If the risk changes according to season, be sure you know when the malaria risk is high and when the risk is low. If you do not have information telling you that the malaria risk is low in your area, always assume that children under 5 who have fever are at high risk for malaria.

If a child lives in a low or no malaria risk area, you may need to ask an additional question—Has the child travelled outside this area within the last 2 weeks? If yes, has the child been to a high or low malaria risk area? If the child has travelled to a high or low malaria risk area, you should assess the child as though he lived in the area to which he travelled.

Decide if the malaria risk is high, low or no. Circle the malaria risk on the recording form. You will use this information later when classifying the child’s fever.

\[ \text{\textbf{\textit{ASK: FOR HOW LONG? IF MORE THAN 7 DAYS, HAS FEVER BEEN PRESENT EVERY DAY?}} } \]

Ask the mother how long the child has had fever. If the fever has been present for more than 7 days, ask if the fever has been present every day.
Most fevers due to viral illnesses go away within a few days. A fever which has been present every day for more than 7 days can mean that the child has a more severe disease such as typhoid fever.

▼ ASK: HAS THE CHILD HAD MEASLES WITHIN THE LAST 3 MONTHS?
Measles damages the child’s immune system and leaves the child at risk for other infections for many weeks. A child with fever and a history of measles within the last 3 months may have an infection, such as an eye infection, due to complications of measles. In areas with a high measles prevalence, mothers are often able to recognize the disease.

▼ LOOK OR FEEL FOR STIFF NECK
A child with fever and stiff neck may have meningitis. A child with meningitis needs urgent treatment with injectable antibiotics and referral to hospital.

While you talk with the mother during the assessment, look to see if the child moves and bends his neck easily as he looks around. If the child is moving and bending his neck, he does not have a stiff neck.

If you did not see any movement, or if you are not sure, draw the child's attention to his umbilicus or toes. For example, you can shine a flashlight on his toes or umbilicus or tickle his toes to encourage the child to look down. Look to see if the child can bend his neck when he looks down at his umbilicus or toes.

If you still have not seen the child bend his neck himself, ask the mother to help you lie the child on his back. Lean over the child, gently support his back and shoulders with one hand. With the other hand, hold his head. Then carefully bend the head forward toward his chest. If the neck bends easily, the child does not have stiff neck. If the neck feels stiff and there is resistance to bending, the child has a stiff neck. Often a child with a stiff neck will cry when you try to bend the neck.

▼ LOOK FOR RUNNY NOSE
A runny nose in a child with fever may mean that the child has a common cold. If the child has a runny nose, ask the mother if the child has had a runny nose only with this illness. If she is not sure, ask questions to find out if it is an acute or chronic runny nose. When malaria risk is low or no, a child with fever and a runny nose does not need an antimalarial. This child’s fever is probably due to a common cold.
**LOOK FOR SIGNS SUGGESTING MEASLES**

Assess a child with fever to see if there are signs suggesting measles. Look for a generalized rash and for one of the following signs: cough, runny nose, or red eyes.

**Generalized rash**

In measles, a red rash begins behind the ears and on the neck. It spreads to the face. During the next day, the rash spreads to the rest of the body, arms and legs. After 4 to 5 days, the rash starts to fade and the skin may peel. Some children with severe infection may have more rash spread over more of the body. The rash becomes more discolored (dark brown or blackish), and there is more peeling of the skin.

A measles rash does not have vesicles (blisters) or pustules. The rash does not itch. Do not confuse measles with other common childhood rashes such as chicken pox, scabies or heat rash. (The chicken pox rash is a generalized rash with vesicles. Scabies occurs on the hands, feet, ankles, elbows, buttocks and axilla. It also itches. Heat rash can be a generalized rash with small bumps and vesicles which itch. A child with heat rash is not sick.) You can recognize measles more easily during times when other cases of measles are occurring in your community.

**Cough, runny nose, or red eyes**

To classify a child as having measles, the child with fever must have a generalized rash AND one of the following signs: cough, runny nose, or red eyes. The child has “red eyes” if there is redness in the white part of the eye. In a healthy eye, the white part of the eye is clearly white and not discoloured.

*If the child has measles now or within the last 3 months:* Look to see if the child has mouth or eye complications. Other complications of measles such as stridor in a calm child, pneumonia, and diarrhoea are assessed earlier. Malnutrition and ear infection are assessed later.

**LOOK FOR MOUTH ULCERS. ARE THEY DEEP AND EXTENSIVE?**

Look inside the child’s mouth for mouth ulcers. Ulcers are painful open sores on the inside of the mouth and lips or the tongue. They may be red or have white coating on them. In severe cases, they are deep and extensive. When present, mouth ulcers make it difficult for the child with measles to drink or eat.

Mouth ulcers are different than the small spots called Koplik spots. Koplik spots occur in the mouth inside the cheek during early stages of the measles infection. Koplik spots are small, irregular, bright red spots with a white spot in the center. They do not interfere with drinking or eating. They do not need treatment.

**LOOK FOR PUS DRAINING FROM THE EYE**

Pus draining from the eye is a sign of conjunctivitis. Conjunctivitis is an infection of the conjunctiva, the inside surface of the eyelid and the white part of the eye. If you do not see pus draining from the eye, look for pus on the conjunctiva or on the eyelids.

Often the pus forms a crust when the child is sleeping and seals the eye shut. It can be gently opened with clean hands. Wash your hands after examining the eye of any child with pus draining from the eye.

**LOOK FOR CLOUDING OF THE CORNEA**

The *conjunctiva* lines the eyelids and covers the white part of the eye. The *iris* is the coloured part of the eye. The normal *cornea* (the clear window of the eye) is bright and transparent. Through it, you can see the iris and the round *pupil* at its middle. A normal cornea is clear. You can see the colour of the iris clearly. The pupil is black.
When clouding of the cornea is present, there is a hazy area in the cornea. Look carefully at the cornea for clouding. The cornea may appear clouded or hazy, such as how a glass of water looks when you add a small amount of milk. The clouding may occur in one or both eyes.

Corneal clouding is a dangerous condition. The corneal clouding may be due to vitamin A deficiency which has been made worse by measles. If the corneal clouding is not treated, the cornea can ulcerate and cause blindness. A child with clouding of the cornea needs urgent treatment with vitamin A.

A child with corneal clouding may keep his eyes tightly shut when exposed to light. The light may cause irritation and pain to the child’s eyes. To check the child’s eye, wait for the child to open his eye. Or, gently pull down the lower eyelid to look for clouding.

If there is clouding of the cornea, ask the mother how long the clouding has been present. If the mother is certain that clouding has been there for some time, ask if the clouding has already been assessed and treated at the hospital. If it has, you do not need to refer this child again for corneal clouding.

### 9.2 How to classify fever

If the child has fever and no signs of measles, classify the child for fever only. If the child has signs of both fever and measles, classify the child for fever and for measles.

The ASSESS & CLASSIFY chart has more than one table to classify fever. One is used to classify fever when the risk of malaria is high. The others are used to classify fever when the risk of malaria is low or no. To classify fever, you must know if the malaria risk is high, low or no. You should also know if the child has travelled outside the area in the last 2 weeks. Then select the appropriate classification table.

#### 9.2.1 High malaria risk

There are two possible classifications for fever in an area with high malaria risk: VERY SEVERE FEBRILE DISEASE, and MALARIA (see Example 10). You will read about

**EXAMPLE 10: CLASSIFICATION TABLE FOR HIGH MALARIA RISK**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| • Any general danger sign  
  • Stiff neck | VERY SEVERE FEBRILE DISEASE | ➤ Give quinine for severe malaria (first dose).  
➤ Give first dose of an appropriate antibiotic.  
➤ Treat the child to prevent low blood sugar.  
➤ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
➤ Refer URGENTLY to hospital. |
| • Fever  
(by history or feels hot or temperature 37.5°C or above) | MALARIA | ➤ If NO cough with fast breathing, treat with oral antimalarial.  
OR  
If cough with fast breathing, treat with cotrimoxazole for 5 days  
➤ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
➤ Advise mother when to return immediately.  
➤ Follow-up in 2 days if fever persists.  
➤ If fever is present every day for more than 7 days, REFER for assessment. |

**These temperatures are based on axillary temperature**
how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

**VERY SEVERE FEBRILE DISEASE**

If a child with fever has any general danger sign or a stiff neck, classify the child as having VERY SEVERE FEBRILE DISEASE.

A child with fever and any general danger sign or stiff neck may have meningitis, severe malaria (including cerebral malaria) or sepsis. It is not possible to distinguish between these severe diseases without laboratory tests. A child classified as having VERY SEVERE FEBRILE DISEASE needs urgent treatment and referral. Before referring urgently, you will give several treatments for the possible severe diseases.

**MALARIA**

If a general danger sign or stiff neck is not present, look at the yellow row.

Because the child has a fever (by history, feels hot, or temperature 37.5°C or above) in a high malaria risk area, classify the child as having MALARIA. When the risk of malaria is high, the chance is also high that the child’s fever is due to malaria.

Most viral infections last less than a week. A fever that persists every day for more than 7 days may be a sign of typhoid fever or other severe disease. If the child’s fever has persisted every day for more than 7 days, refer the child for additional assessment.

Treat a child classified as having MALARIA with an oral antimalarial. If the child also has cough and fast breathing, the child may have malaria or pneumonia, or both. It is not possible without laboratory tests to find out if the child has malaria or pneumonia. Cotrimoxazole is effective as both an antibiotic and an antimalarial.

**9.2.2 Low malaria risk**

There are three possible classifications for fever in an area with low malaria risk: VERY SEVERE FEBRILE DISEASE, MALARIA, and FEVER—MALARIA UNLIKELY (see Example 11). In some low malaria risk areas, there may be families who have travelled to areas where the risk of malaria is high. If the mother or caretaker tells you that the child has travelled to an area where you know there is a high malaria risk, use the High Malaria Risk classification table. You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

**VERY SEVERE FEBRILE DISEASE**

If a child with fever has any general danger sign or a stiff neck, classify the child as having VERY SEVERE FEBRILE DISEASE (see section 9.2.1 above).

**MALARIA**

When the risk of malaria is low, a child with fever and NO runny nose, NO measles and NO other cause of fever, is classified as having MALARIA.

The chance that a child’s fever is due to malaria is low. The chance of malaria is even lower if the child has signs of another infection that can cause fever. For example, the child’s fever may be due to a common cold (suggested by the runny nose), measles, or another obvious cause such as cellulitis, an abscess or ear infection. However, when signs of another infection are not present, classify and treat the illness as MALARIA.

Treat a child classified as having MALARIA with an oral antimalarial. If the child also has cough and fast breathing, the child may have malaria or pneumonia, or both.

If the fever has been present every day for more than 7 days, refer for assessment.
### EXAMPLE 11: CLASSIFICATION TABLE FOR LOW MALARIA RISK AND NO TRAVEL TO A HIGH RISK AREA

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT (Urgent pre-referral treatments are in bold print.)</th>
</tr>
</thead>
</table>
| • Any general danger sign  
• Stiff neck | VERY SEVERE FEBRILE DISEASE | ➤ Give quinine for severe malaria (first dose).  
➤ Give first dose of an appropriate antibiotic.  
➤ Treat the child to prevent low blood sugar.  
➤ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
➤ Refer URGENTLY to hospital. |
| • NO runny nose and NO measles and NO other cause of fever. | MALARIA | ➤ If NO cough with fast breathing, treat with oral antimalarial.  
OR  
If cough with fast breathing, treat with cotrimoxazole for 5 days  
➤ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
➤ Advise mother when to return immediately.  
➤ Follow-up in 2 days if fever persists.  
➤ If fever is present every day for more than 7 days, REFER for assessment. |
| • Runny nose PRESENT OR  
• Measles PRESENT OR  
• Other cause of fever PRESENT | FEVER—MALARIA UNLIKELY | ➤ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
➤ Advise mother when to return immediately.  
➤ Follow-up in 2 days if fever persists.  
➤ If fever is present every day for more than 7 days, REFER for assessment. |

---

**Fever—Malaria Unlikely**

If the child does not have signs of **VERY SEVERE FEBRILE DISEASE** or of **MALARIA**, look at the last row. When the *malaria risk is low* and the child has signs of runny nose, measles or other causes of fever, classify the child as having **FEVER—MALARIA UNLIKELY**. The chance that this child’s fever is due to malaria is very low. It is safe to not treat the child with an antimalarial during this visit. If the child’s fever is high, give paracetamol.

If the fever has been present every day for more than 7 days, refer for assessment.

### 9.2.3 No malaria risk

There are two possible classifications for fever in an area with **no malaria risk**: **VERY SEVERE FEBRILE DISEASE**, and **FEVER—MALARIA UNLIKELY** (see Example 12). There may be families who have travelled to areas where there is low or high malaria risk. If the mother or caretaker tells you that the child has travelled to an area where you know the malaria risk is low or high, use the classification table for the area to which the child travelled. You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

**VERY SEVERE FEBRILE DISEASE**

If a child with fever has any general danger sign or a stiff neck, classify the child as having **VERY SEVERE FEBRILE DISEASE** (see section 9.2.1 above).
**EXAMPLE 12: CLASSIFICATION TABLE FOR NO MALARIA RISK AND NO TRAVEL TO A MALARIA RISK AREA**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| • Any general danger sign  
• Stiff neck | VERY SEVERE FEBRILE DISEASE | ▶ Give first dose of an appropriate antibiotic.  
▶ Treat the child to prevent low blood sugar.  
▶ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
▶ Refer URGENTLY to hospital. |
| • NO general danger sign  
AND  
• NO Stiff neck. | FEVER—MALARIA UNLIKELY | ▶ Give one dose of paracetamol in clinic for high fever (38.5°C or above).  
▶ Advise mother when to return immediately.  
▶ Follow-up in 2 days if fever persists.  
▶ If fever is present every day for more than 7 days, REFER for assessment. |

**FEVER—MALARIA UNLIKELY**

In areas with **no malaria risk**, if the child has not travelled to a low or high malaria risk area in the last 2 weeks, and if the child has no signs of VERY SEVERE FEBRILE DISEASE, look at the last row. Classify the child who has NO general danger signs **and** NO stiff neck as having FEVER—MALARIA UNLIKELY. Check for other possible causes of fever. If the child's fever is high, give paracetamol. If the fever has been present every day for more than 7 days, refer for assessment.

### 9.3 How to classify measles

A child who has the main symptom “fever” and measles now (or within the last 3 months) is classified both for fever **and** for measles. First you must classify the child’s fever. Next you classify measles. If the child has no signs suggesting measles, or has not had measles within the last three months, do not classify measles.

Children with measles may have other serious complications of measles. These include stridor in a calm child, severe pneumonia, severe dehydration, or severe malnutrition. You assess and classify these signs in other parts of the assessment. Their treatments are appropriate for the child with measles.

Some complications are due to bacterial infections. Others are due to the measles virus, which causes damage to the respiratory and intestinal tracts. Vitamin A deficiency contributes to some of the complications such as corneal ulcer. Any vitamin A deficiency is made worse by the measles infection. Measles complications can lead to severe disease and death.

There are three possible classifications for measles: **SEVERE COMPLICATED MEASLES**, **MEASLES WITH EYE OR MOUTH COMPLICATIONS** and **MEASLES** (see Example 13). You will read about how to identify treatments and to treat children with these classifications in **Parts IV, V and VI**.
EXAMPLE 13: CLASSIFICATION TABLE FOR MEASLES (IF MEASLES NOW OR WITHIN THE LAST 3 MONTHS)

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| • Any general danger sign or  
  • Clouding of cornea or  
  • Deep or extensive mouth ulcers. | SEVERE COMPLICATED MEASLES*** | ➤ Give vitamin A.  
➤ Give first dose of an appropriate antibiotic.  
➤ If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment.  
➤ Refer URGENTLY to hospital. |
| • Pus draining from the eye or  
  • Mouth ulcers | MEASLES WITH EYE OR MOUTH COMPLICATIONS*** | ➤ Give vitamin A.  
➤ If pus draining from the eye, treat eye infection with tetracycline eye ointment.  
➤ If mouth ulcers, treat with gentian violet.  
➤ Follow-up in 2 days. |
| • Measles now or within the last 3 months. | MEASLES | ➤ Give vitamin A. |

*** Other important complications of measles—pneumonia, stridor, diarrhoea, ear infection, and malnutrition—are classified in other tables.

SEVERE COMPLICATED MEASLES

If the child has any general danger sign, clouding of cornea, or deep or extensive mouth ulcers, classify the child as having SEVERE COMPLICATED MEASLES. This child needs urgent treatment and referral to hospital.

If there is clouding of the cornea, or pus draining from the eye, apply tetracycline ointment. If it is not treated, corneal clouding can result in blindness. Ask the mother if the clouding has been present for some time. Find out if it was assessed and treated at the hospital. If it was, you do not need to refer the child again for this eye sign.

If the child has pus draining from the eye, or mouth ulcers which are not deep or extensive, classify the child as having MEASLES WITH EYE OR MOUTH COMPLICATIONS. A child with this classification does not need referral.

Identifying and treating measles complications early in the infection can prevent many deaths. Treat the child with vitamin A. It will help correct any vitamin A deficiency and decrease the severity of the complications. Teach the mother to treat the child’s eye infection or mouth ulcers at home. Treating mouth ulcers helps the child to more quickly resume normal feeding.

A child with measles now or within the last 3 months and with none of the complications listed in the pink (top) or yellow (middle) rows is classified as having MEASLES. Give the child vitamin A to help prevent measles complications. All children with measles should receive vitamin A.

As you assess and classify fever, circle the signs found and write the classification(s) on the case recording form (see Example 14).
EXAMPLE 14: CASE RECORDING FORM WITH THE MAIN SYMPTOM FEVER

**MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Fatima</th>
<th>Age:</th>
<th>18 months</th>
<th>Weight:</th>
<th>11.5 kg</th>
<th>Temperature:</th>
<th>37.5 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASK:</strong> What are the child's problems?</td>
<td>cough, trouble breathing</td>
<td><strong>AGE:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ASSESS</strong> (Circle all signs present)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLASSIFY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHECK FOR GENERAL DANGER SIGNS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOT ABLE TO DRINK OR BREASTFEED</td>
<td>LETHARGIC OR UNCONSCIOUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOMITS EVERYTHING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONVULSIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?</strong></td>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● For how long? 6 Days</td>
<td>● Count the breaths in one minute. 41 breaths per minute</td>
<td>● Fast breathing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Look for chest indrawing.</td>
<td>● Look and listen for stridor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DOES THE CHILD HAVE DIARRHOEA?</strong></td>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● For how long? 5 Days</td>
<td>● Look at the child's general condition.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Is there blood in the stools?</td>
<td>● Lethargic or unconscious?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Look for sunken eyes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Offer the child fluids.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Is the child able to drink or drinking poorly?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Drink slowly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Pinch the skin of the abdomen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Does it go back slowly (longer than 2 seconds)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DOES THE CHILD HAVE FEVER?</strong> (by history/feels hot/temperature 37.5°C or above)</td>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes ✓ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decide Malaria Risk: High</td>
<td>Look</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● For how long? 5 Days</td>
<td>● Look or feel for stiff neck.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● If more than 7 days, has fever been present every day?</td>
<td>● Look for signs of measles.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Has child had measles within the last three months?</td>
<td></td>
<td>Generalized rash and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● One of these: cough, runny nose, or red eyes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CASE:</strong> Fatima is 18 months old. She weighs 11.5 kg. Her temperature is 37.5 °C. The health worker asked, &quot;What are the child's problems?&quot; The mother said &quot;Fatima has been coughing for 6 days, and she is having trouble breathing.&quot; This is the initial visit for this illness. The health worker checked Fatima for general danger signs. The mother said that Fatima is able to drink. She has not been vomiting. She has not had convulsions during this illness. The health worker asked, &quot;Does Fatima seem unusually sleepy?&quot; The mother said, &quot;Yes.&quot; The health worker clapped his hands. He asked the mother to shake the child. Fatima opened her eyes, but did not look around. The health worker talked to Fatima, but she did not watch his face. She stared blankly and appeared not to notice what was going on around her. The health worker asked the mother to lift Fatima's shirt. He then counted the number of breaths the child took in a minute. He counted 41 breaths per minute. The health worker did not see any chest indrawing. He did not hear stridor. The health worker asked, &quot;Does the child have diarrhoea?&quot; The mother said, &quot;Yes, for 3 days.&quot; There was no blood in the stool. Fatima's eyes looked sunken. The health worker asked, &quot;Do you notice anything different about Fatima's eyes?&quot; The mother said, &quot;Yes.&quot; He gave the mother some clean water in a cup and asked her to offer it to Fatima. When offered the cup, Fatima would not drink. When pinched, the skin of Fatima's abdomen went back slowly. Because Fatima's temperature is 37.5 °C and she feels hot, the health worker assessed Fatima further for signs related to fever. The mother said Fatima's fever began 2 days ago. It is the dry season, and the risk of malaria is low. The mother said that Fatima did not travel away from home in the last two weeks. Fatima has not had measles within the last 3 months, and there are no signs suggesting measles. She does not have stiff neck. The health worker noticed that Fatima has a runny nose.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 10

Ear problem

For ALL sick children ask the mother about the child's problem, check for general danger signs, ask about cough or difficult breathing, diarrhoea, fever and then
ASK: DOES THE CHILD HAVE AN EAR PROBLEM?

IF NO

IF YES

Does the child have an ear problem?

IF YES ASK:
- Is there ear pain?
- Is there ear discharge?
  If yes, for how long?

LOOK AND FEEL:
- Look for pus draining from the ear.
- Feel for tender swelling behind the ear.

CLASSIFY the child's illness using the colour-coded classification table for ear problem.

Then CHECK for malnutrition and anaemia, immunization status and for other problems.

A child with an ear problem may have an ear infection.

When a child has an ear infection, pus collects behind the ear drum and causes pain and often fever. If the infection is not treated, the ear drum may burst. The pus discharges, and the child feels less pain. The fever and other symptoms may stop, but the child suffers from poor hearing because the ear drum has a hole in it. Usually the ear drum heals by itself. At other times the discharge continues, the ear drum does not heal and the child becomes deaf in that ear.

Sometimes the infection can spread from the ear to the bone behind the ear (the mastoid) causing mastoiditis. Infection can also spread from the ear to the brain causing meningitis. These are severe diseases. They need urgent attention and referral.

Ear infections rarely cause death. However, they cause many days of illness in children. Ear infections are the main cause of deafness in developing countries, and deafness causes learning problems in school. The ASSESS & CLASSIFY chart helps you identify ear problems due to ear infection.

10.1 How to assess a child with an ear problem

Ask about ear problem in ALL sick children.
▼ ASK: DOES THE CHILD HAVE AN EAR PROBLEM?
If the mother answers NO, record her answer. Do not assess the child for ear problem. Go to the next box and check for malnutrition and anaemia.
If the mother answers YES, ask the next question.

▼ ASK: DOES THE CHILD HAVE EAR PAIN?
Ear pain can mean that the child has an ear infection. If the mother is not sure that the child has ear pain, ask if the child has been irritable and rubbing his ear.

▼ ASK: IS THERE EAR DISCHARGE? IF YES, FOR HOW LONG?
Ear discharge is also a sign of infection. When asking about ear discharge, use words the mother understands. If the child has had ear discharge, ask for how long. Give her time to answer the question. She may need to remember when the discharge started.
You will classify and treat the ear problem depending on how long the ear discharge has been present.
— Ear discharge reported for 2 weeks or more (with pus seen draining from the ear) is treated as a chronic ear infection.
— Ear discharge reported for less than 2 weeks (with pus seen draining from the ear) is treated as an acute ear infection.
You do not need more accurate information about how long the discharge has been present.

▼ LOOK FOR PUS DRAINING FROM THE EAR
Pus draining from the ear is a sign of infection, even if the child no longer has any pain. Look inside the child's ear to see if pus is draining from the ear.

▼ FEEL FOR TENDER SWELLING BEHIND THE EAR
Feel behind both ears. Compare them and decide if there is tender swelling of the mastoid bone. In infants, the swelling may be above the ear. Both tenderness and swelling must be present to classify mastoiditis, a deep infection in the mastoid bone. Do not confuse this swelling of the bone with swollen lymph nodes.

10.2 How to classify ear problem
There are four classifications for ear problem: MASTOIDITIS, ACUTE EAR INFECTION, CHRONIC EAR INFECTION, NO EAR INFECTION (see Example 15). You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

MASTOIDITIS
If a child has tender swelling behind the ear, classify the child as having MASTOIDITIS. Refer the child urgently to hospital. This child needs treatment with injectable antibiotics. He may also need surgery. Before the child leaves for hospital, give the first dose of an appropriate antibiotic.

ACUTE EAR INFECTION
If you see pus draining from the ear and discharge is reported present for less than two weeks, or if there is ear pain, classify the child's illness as ACUTE EAR INFECTION. Give a child with an ACUTE EAR INFECTION an appropriate antibiotic. Antibiotics
**EXAMPLE 15: CLASSIFICATION TABLE FOR EAR PROBLEM**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Tender swelling behind the ear.</td>
<td>MASTOIDITIS</td>
<td>▶ Give first dose of an appropriate antibiotic.</td>
</tr>
<tr>
<td>• Pus is seen draining from the ear and discharge is reported for less than 14 days, or Ear pain.</td>
<td>ACUTE EAR INFECTION</td>
<td>▶ Give an oral antibiotic for 5 days.</td>
</tr>
<tr>
<td>• Pus is seen draining from the ear and discharge is reported for 14 days or more.</td>
<td>CHRONIC EAR INFECTION</td>
<td>▶ Dry the ear by wicking.</td>
</tr>
<tr>
<td>• No ear pain and No pus seen draining from the ear.</td>
<td>NO EAR INFECTION</td>
<td>▶ Follow-up in 5 days.</td>
</tr>
</tbody>
</table>

(Urgent pre-referral treatments are in bold print.)

For treating pneumonia are effective against the bacteria that cause most ear infections. Give paracetamol to relieve the ear pain (or high fever). If pus is draining from the ear, dry the ear by wicking.

If you see pus draining from the ear and discharge has been present for two weeks or more, classify the child’s illness as **CHRONIC EAR INFECTION**.

Most bacteria that cause **CHRONIC EAR INFECTION** are different from those that cause acute ear infections. For this reason, oral antibiotics are not usually effective against chronic infections. Do not give repeated courses of antibiotics for a draining ear.

**NO EAR INFECTION**

If there is no ear pain and no pus is seen draining from the ear, the child’s illness is classified as **NO EAR INFECTION**. The child needs no additional treatment.

As you assess and classify ear problem, circle the signs found and write the classification on the case recording form (see Example 16).

**EXAMPLE 16: EAR PROBLEM SECTION OF THE CASE RECORDING FORM**

**MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS**

Name: ________________________________  Age: __________ years  Weight: __________ kg  Temperature: __________°C

ASK: What are the child’s problems?  __________  Initial visit? __________  Follow-up Visit? __________

ASSESS (Circle all signs present)

**DOES THE CHILD HAVE AN EAR PROBLEM?**

☐ Yes  ☐ No

- Is there an ear pain?
- Is there ear discharge?
- If yes, for how long? __________ Days

Look for pus draining from the ear.
Feel for tender swelling behind the ear.

Acute Ear Infection
CASE 2: Mbira is 3 years old. She weighs 13 kg. Her temperature is 37.5 °C. Her mother came to the clinic because Mbira has felt hot for 2 days. She was crying last night and complained that her ear was hurting. The health worker checked and found no general danger signs. Mbira does not have cough or difficult breathing. She does not have diarrhoea. The malaria risk is high. Her fever was classified as MALARIA.

Next the health worker asked about Mbira’s ear problem. The mother said she is sure Mbira has ear pain. The child cried most of the night because her ear hurt. There has not been ear discharge. The health worker did not see any pus draining from the child’s ear. She felt behind the child’s ears and found no tender swelling.
A mother may bring her child to clinic because the child has an acute illness. The child may not have specific complaints that point to malnutrition or anaemia. A sick child can be malnourished, but you or the child’s family may not notice the problem. A child with malnutrition has a higher risk of many types of disease and death. Even children with mild and moderate malnutrition have an increased risk of death.

Identifying children with malnutrition and treating them can help prevent many severe diseases and death. Some malnutrition cases can be treated at home. Severe cases need referral to hospital for special feeding, blood transfusion, or specific treatment of a disease contributing to malnutrition (such as tuberculosis).

**Causes of malnutrition**

There are several causes of malnutrition. They may vary from country to country. One type of malnutrition is *protein-energy malnutrition*. Protein-energy malnutrition develops when the child is not getting enough energy or protein from his food to meet his nutritional needs. A child who has had frequent illnesses can also develop protein-energy malnutrition. The child’s appetite decreases, and the food that the child eats is not used efficiently. When the child has protein-energy malnutrition:

- The child may become severely wasted, a sign of marasmus.
- The child may develop oedema, a sign of kwashiorkor.
- The child may not grow well and become stunted (too short).
A child whose diet lacks recommended amounts of essential vitamins and minerals can develop malnutrition. The child may not be eating enough of the recommended amounts of specific vitamins (such as vitamin A) or minerals (such as iron).

- Not eating foods that contain vitamin A can result in vitamin A deficiency. A child with vitamin A deficiency is at risk of death from measles and diarrhoea. The child is also at risk of blindness.

- Not eating foods rich in iron can lead to iron deficiency and anaemia. Anaemia is a reduced number of red cells or a reduced amount of haemoglobin in each red cell. A child can also develop anaemia as a result of:
  - Infections
  - Parasites such as hookworm or whipworm that can cause blood loss from the gut and lead to anaemia.
  - Malaria, which can destroy red cells rapidly. Children can develop anaemia if they have repeated episodes of malaria or if malaria was inadequately treated. The anaemia may develop slowly. Often, anaemia in these children is due to both malnutrition and malaria.

11.1 How to check a child for malnutrition and anemia

Check ALL sick children for malnutrition and anaemia.

\[\text{LOOK FOR VISIBLE SEVERE WASTING}\]

A child with visible severe wasting has marasmus, a form of severe malnutrition. A child has this sign if he is very thin, has no fat, and looks like skin and bones. Some children are thin but do not have visible severe wasting. This assessment step helps you identify children with visible severe wasting who need urgent treatment and referral to a hospital.

To look for visible severe wasting, remove the child’s clothes. Look for severe wasting of the muscles of the shoulders, arms, buttocks and legs. Look to see if the outline of the child’s ribs is easily seen. Look at the child’s hips. They may look small when you compare them with the chest and abdomen. Look at the child from the side to see if the fat of the buttocks is missing. When wasting is extreme, there are many folds of skins on the buttocks and thigh. It looks as if the child is wearing baggy pants.

The face of a child with visible severe wasting may still look normal. The child’s abdomen may be large or distended.

\[\text{LOOK FOR PALMAR PALLOR}\]

Pallor is unusual paleness of the skin. It is a sign of anaemia. To see if the child has palmar pallor, look at the skin of the child’s palm. Hold the child’s palm open by grasping it gently from the side. Do not stretch the fingers backwards. This may cause pallor by blocking the blood supply.
Compare the colour of the child’s palm with your own palm and with the palms of other children. If the skin of the child’s palm is pale, the child has some palmar pallor. If the skin of the palm is very pale or so pale that it looks white, the child has severe palmar pallor.

▼ LOOK AND FEEL FOR OEDEMA OF BOTH FEET

A child with oedema of both feet may have kwashiorkor, another form of severe malnutrition. Other common signs of kwashiorkor include thin, sparse and pale hair that easily falls out; dry, scaly skin especially on the arms and legs; and a puffy or “moon” face. Oedema is when an unusually large amount of fluid gathers in the child’s tissues. The tissues become filled with the fluid and look swollen or puffed up. Look and feel to determine if the child has oedema of both feet. Use your thumb to press gently for a few seconds on the top side of each foot. The child has oedema if a dent remains in the child’s foot when you lift your thumb.

▼ DETERMINE WEIGHT FOR AGE

Weight for age compares the child’s weight with the weight of other children who are the same age. You will identify children whose weight for age is below the bottom curve of a weight for age chart. These are children who are very low weight for age. Children on or above the bottom curve of the chart can still be malnourished. But children who are below the bottom curve are very low weight and need special attention to how they are fed.

Look at the weight for age chart in the IMCI chart booklet. To determine weight for age:

1. Calculate the child’s age in months.

2. Weigh the child if he has not already been weighed today. Use a scale that you know gives accurate weights. The child should wear light clothing when he is weighed. Ask the mother to help remove any coat, sweater, or shoes.

This line shows the child’s weight: 8.0 kg

This line shows the child’s age: 27 months

This is the point where the lines for age and weight meet. Because the point is below the bottom curve, the child is very low weight for age.
3. Use the weight for age chart to determine weight for age.
   — Look at the left-hand axis to locate the line that shows the child's weight.
   — Look at the bottom axis of the chart to locate the line that shows the child's age in months.
   — Find the point on the chart where the line for the child's weight meets the line for the child's age.

4. Decide if the point is above, on, or below the bottom curve.
   — If the point is below the bottom curve, the child is very low weight for age.
   — If the point is above or on the bottom curve, the child is not very low weight for age.

11.2 How to classify nutritional status

There are three classifications for a child's nutritional status: SEVERE MALNUTRITION OR SEVERE ANAEMIA, ANAEMIA OR VERY LOW WEIGHT and NO ANAEMIA AND NOT VERY LOW WEIGHT (see Example 17). You will read about how to identify treatments and to treat children with these classifications in Parts IV, V and VI.

EXAMPLE 17: CLASSIFICATION TABLE FOR MALNUTRITION AND ANAEMIA

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| • Visible severe wasting or 
   • Severe palmar pallor or 
   • Oedema of both feet. | SEVERE MALNUTRITION OR SEVERE ANAEMIA | ➤ Give Vitamin A.  
➤ Refer URGENTLY to hospital. |
| • Some palmar pallor or 
   • Very low weight for age. | ANAEMIA OR VERY LOW WEIGHT | ➤ Assess the child's feeding and counsel the mother on feeding according to the FOOD box on the COUNSEL THE MOTHER chart.  
➤ If feeding problem, follow-up in 5 days.  
➤ If pallor:  
   — Give iron.  
   — Give oral antimalarial if high malaria risk.  
   — Give mebendazole if child is 2 years or older and has not had a dose in the previous 6 months.  
➤ Advise mother when to return immediately.  
➤ If pallor, follow-up in 14 days.  
If very low weight for age, follow-up in 30 days. |
| • Not very low weight for age and no other signs of malnutrition. | NO ANAEMIA AND NOT VERY LOW WEIGHT | ➤ If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the FOOD box on the COUNSEL THE MOTHER chart.  
➤ If feeding problem, follow-up in 5 days.  
➤ Advise mother when to return immediately. |

You need to assess the feeding of children who:
■ are classified as having ANAEMIA OR VERY LOW WEIGHT; or
■ are less than 2 years old.

You will learn more about how to assess feeding and counsel a mother about feeding and fluids in Chapter 29 Counsel the Mother about Feeding and Fluids.

SEVERE MALNUTRITION OR SEVERE ANAEMIA

If the child has visible severe wasting, severe palmar pallor or oedema of both feet, classify the child as having SEVERE MALNUTRITION OR SEVERE ANAEMIA.
Children with oedema of both feet may have other diseases such as nephrotic syndrome. It is not necessary to distinguish these other conditions from kwashiorkor since they also require referral.

Children classified as having SEVERE MALNUTRITION OR SEVERE ANAEMIA are at risk of death from pneumonia, diarrhoea, measles, and other severe diseases. These children need urgent referral to hospital where their treatment can be carefully monitored. They may need special feeding, antibiotics or blood transfusions. Before the child leaves for hospital, give the child a dose of vitamin A.

**ANAEMIA**

If the child is very low weight for age or has some palmar pallor, classify the child as having ANAEMIA OR VERY LOW WEIGHT. A child classified as having ANAEMIA OR VERY LOW WEIGHT has a higher risk of severe disease. When you record this classification, you can just write ANAEMIA if the child has only palmar pallor or VERY LOW WEIGHT if the child is only very low weight for age.

Assess the child’s feeding and counsel the mother about feeding her child according to the instructions and recommendations in the FOOD box on the COUNSEL THE MOTHER chart and in Chapter 29.

A child with some palmar pallor may have anaemia. Treat the child with iron. The anaemia may be due to malaria, Hookworm or Whipworm. When there is a high risk of malaria, give an antimalarial to a child with signs of anaemia. Hookworm and whipworm infections contribute to anaemia because the loss of blood from the gut results in iron deficiency. Give the child mebendazole only if there is hookworm or whipworm in the area. Only give mebendazole if the child with anaemia is 2 years of age or older and has not had a dose of mebendazole in the last 6 months.

**NO ANAEMIA BUT VERY LOW WEIGHT**

If the child is not very low weight for age and there are no other signs of malnutrition, classify the child as having NO ANAEMIA AND NOT VERY LOW WEIGHT. Children less than 2 years of age have a higher risk of feeding problems and malnutrition than older children do. If the child is less than 2 years of age, assess the child’s feeding. Counsel the mother about feeding her child according to the recommendations in the FOOD box on the COUNSEL THE MOTHER chart and Chapter 29.

As you assess and classify malnutrition and anaemia, circle the signs found and write the classification(s) on the case recording form (see Example 18).
EXAMPLE 18: MALNUTRITION AND ANAEMIA SECTION OF THE CASE RECORDING FORM

MANAGEMENT OF THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

Name: Alulu

Age: 9 months

Weight: 7 kg

Temperature: 36.8 °C

ASK: What are the child's problems? Diarrhoea

Initial visit? √

Follow-up Visit? 

CLASSIFY

THEN CHECK FOR MALNUTRITION AND ANAEMIA

- Look for visible severe wasting.
- Look for palmar pallor. Some palmar pallor? ☑️
- Look for oedema of both feet.
- Determine weight for age. Very Low: Not Very Low: √

Anaemia

CASE 3: Alulu is 9 months old. He weighs 7 kg. His temperature is 36.8 °C. He is at the clinic today because his mother and father are concerned about his diarrhoea. He does not have any general danger signs. He does not have cough or difficult breathing. He has had diarrhoea for 5 days, and is classified as diarrhoea with SOME DEHYDRATION. He does not have fever. He does not have an ear problem.

Next, the health worker checked for signs of malnutrition and anaemia. The child does not have visible severe wasting. There is some palmar pallor. He does not have oedema of both feet. The health worker uses the Weight for Age chart to determine Alulu's weight (7 kg.) for his age (9 months).
CHAPTER 12
Immunization status

For ALL sick children ask the mother about the child's problem, check for general danger signs, ask about cough or difficult breathing, diarrhoea, fever, ear problem, and then check for malnutrition and anaemia and CHECK IMMUNIZATION STATUS.

THEN CHECK THE CHILD'S IMMUNIZATION STATUS

<table>
<thead>
<tr>
<th>IMMUNIZATION SCHEDULE:</th>
<th>AGE</th>
<th>VACCINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>BCG</td>
<td>OPV-0</td>
</tr>
<tr>
<td>6 weeks</td>
<td>DPT-1</td>
<td>OPV-1</td>
</tr>
<tr>
<td>10 weeks</td>
<td>DPT-2</td>
<td>OPV-2</td>
</tr>
<tr>
<td>14 weeks</td>
<td>DPT-3</td>
<td>OPV-3</td>
</tr>
<tr>
<td>9 months</td>
<td>Measles</td>
<td></td>
</tr>
</tbody>
</table>

DECIDE if the child needs an immunization today, or if the mother should be told to come back with the child at a later date for an immunization. Note: Remember there are no contraindications to immunization of a sick child if the child is well enough to go home.

Then CHECK for other problems.

Check the immunization status of **ALL** sick children.

**USE THE RECOMMENDED IMMUNIZATION SCHEDULE**

Use your country's recommended immunization schedule when you check the child's immunization status. Look at the recommended immunization schedule on the ASSESS & CLASSIFY chart. Refer to it as you read how to check a child's immunization status.

Give the recommended vaccine only when the child is the appropriate age for each dose. If the child receives an immunization when he or she is too young, the child's body will not be able to fight the disease very well. Also, if the child does not receive an immunization as soon as he is old enough, his risk of getting the disease increases.

In exceptional situation where measles morbidity and mortality before nine months of age represent a significant problem (more than 15% of cases and deaths), an extra dose of measles vaccine is given at 6 months of age. This is in addition to the scheduled dose given as soon as possible after 9 months of age. This schedule is also recommended for groups at high risk of measles death, such as infants in refugee camps, infants admitted to hospitals, infants affected by disasters and during outbreaks.
All children should receive all the recommended immunizations before their first birthday. If the child does not come for an immunization at the recommended age, give the necessary immunizations any time after the child reaches that age. For each vaccine, give the remaining doses at least 4 weeks apart. You do not need to repeat the whole schedule.

\textbf{\textit{\textbf{\textendash} Observe Contraindications to Immunization}}

In the past some health workers thought minor illness was a contraindication to immunization (a reason to not immunize the child). They sent sick children away and told the mothers to bring them back when the children were well. This is a bad practice because it delays immunization. The mother may have travelled a long distance to bring her sick child to the clinic and cannot easily bring the child back for immunization at another time. The child is left at risk of getting measles, polio, diphtheria, pertussis, tetanus or tuberculosis. It is very important to immunize sick and malnourished children against these diseases.

There are only three situations at present that are contraindications to immunization:

\begin{itemize}
  \item Do not give BCG to a child known to have AIDS.
  \item Do not give DPT 2 or DPT 3 to a child who has had convulsions or shock within 3 days of the most recent dose.
  \item Do not give DPT to a child with recurrent convulsions or another active neurological disease of the central nervous system.
\end{itemize}

In all other situations, here is a good rule to follow: \textit{There are no contraindications to immunization of a sick child if the child is well enough to go home.}

If a child is going to be referred, do not immunize the child before referral. The hospital staff at the referral site should make the decision about immunizing the child when the child is admitted. This will avoid delaying referral.

Children with diarrhoea who are due for OPV should receive a dose of OPV (oral polio vaccine) during this visit. However, do not count the dose. The child should return when the next dose of OPV is due for an extra dose of OPV.

Advise the mother to be sure that the other children in the family are immunized. Give the mother tetanus toxoid, if required.

\textbf{Contraindications to Immunization}

\begin{tabular}{|l|l|}
\hline
\textbf{DPT} & \begin{itemize}
  \item Do not give DPT2 or DPT 3 to a child who had convulsions, shock or any other adverse reaction after the most recent dose. Instead, give DT.
  \item Do not give to a child with recurrent convulsions or another active neurological disease of the central nervous system.
\end{itemize} \\
\hline
\textbf{OPV} & \begin{itemize}
  \item If the child has diarrhoea, give a dose of OPV, but do not count the dose. Ask the mother to return in 4 weeks for the missing dose of OPV.
\end{itemize} \\
\hline
\end{tabular}

\textbf{12.1 How to decide if a child needs immunization today}

The child may receive immunization today and/or the child’s caretaker may be asked to return with the child on a particular date for an immunization, or the child may be referred with a note that indicates an immunization is needed. Decide if the child needs immunization.
\section*{Look at the Child's Age on the Clinical Record}

If you do not already know the child's age, ask about the child's age.

\section*{Ask the Mother If the Child Has an Immunization Card}

If the mother answers YES, ask her if she brought the card to the clinic today.

If she brought the card with her, ask to see the card:

\begin{itemize}
  \item Compare the child's immunization record with the recommended immunization schedule. Decide whether the child has had all the immunizations recommended for the child's age.
  \item On the Recording Form, check all immunizations the child has already received. Write the date of the immunization the child received most recently. Circle any immunizations the child needs today.
  \item If the child is not being referred, explain to the mother that the child needs to receive an immunization (or immunizations) today.
\end{itemize}

If the mother says that she does NOT have an immunization card with her:

\begin{itemize}
  \item Ask the mother to tell you what immunizations the child has received.
  \item Use your judgement to decide if the mother has given a reliable report. If you have any doubt, immunize the child. Give the child OPV, DPT, and measles vaccine according to the child's age.
  \item Give an immunization card to the mother and ask her to please bring it with her each time she brings the child to the clinic.
\end{itemize}

As you check the child's immunization status, use the case recording form to check the immunizations already given and circle the immunizations needed today. If the child should return for an immunization, write the date that the child should return in the classification column (see Example 19).

\section*{Example 19: Immunization Status Section of the Case Recording Form}

\begin{center}
\begin{tabular}{|c|c|c|c|c|}
\hline
Management of the Sick Child Age 2 Months Up to 5 Years  \\
\hline
Name: Salim & Age: 4 months & Weight: 5.5 kg & Temperature: 36.5°C  \\
ASK: What are the child's problems? Diarrhea & Initial visit? ✓ & Follow-up Visit? & CLASSIFY  \\
ASSESS (Circle all signs present)  \\
\hline
\end{tabular}
\end{center}

\begin{center}
\begin{tabular}{|c|c|c|c|}
\hline
CHECK THE CHILD'S IMMUNIZATION STATUS & Circle immunizations needed today.  \\
\hline
\checkmark BCG & \checkmark DPT1 & \checkmark DPT2 & DPT3  \\
\checkmark OPV0 & OPV1 & OPV2 & OPV3  \\
\hline
Child has diarrhea. Give OPV 3, but do not record it.  \\
\hline
Return for next Immunization on: CPV-5 (12 May)  \\
(Date)  \\
\hline
\end{tabular}
\end{center}

**Case 4:** Salim is 4 months old. He has no general danger signs. He is classified as diarrhea with NO HYDRATION. His immunization record shows that he has received BCG, OPV0, OPV1, OPV2, DPT1, and DPT2.
CHAPTER 13
Other problems

For ALL sick children ask the mother about the child's problem, check for general danger signs, ask about cough or
difficult breathing, diarrhoea, fever, ear problem, and then check for malnutrition and anaemia, immunization status
AND

ASSESS OTHER PROBLEMS

TREAT any other problems according to your training,
experience and clinic policy.
REFER the child for any other problem that you cannot manage.

The *ASSESS & CLASSIFY* chart reminds you to assess any other problems that the
child may have. Since the chart does not address all of the problems that a sick child
may have, you will now assess other problems the mother told you about. For example,
she may have said the child has a skin infection, itching or swollen neck glands. Or you
may have observed another problem during the assessment. Identify and treat any other
problems according to your training, experience and clinic policy. Refer the child for
any other problem you cannot manage in clinic.

The last box on the *ASSESS & CLASSIFY* chart has an important warning. It says:

**MAKE SURE CHILD WITH ANY GENERAL DANGER SIGN IS REFERRED** after first dose of an
appropriate antibiotic and other urgent treatments.

**Exception:** Rehydration of the child according to Plan C may resolve danger signs so that referral
is no longer needed.

It is possible, though uncommon, that a child may have a general danger sign, but may
not have a severe classification for any of the main symptoms. This note reminds you
that a child with any general danger sign needs urgent treatment and referral.
Part III

THE SICK
YOUNG INFANT
AGE 1 WEEK
UP TO 2 MONTHS:
ASSESS AND
CLASSIFY
CHAPTER 14

Overview of assess and classify

In this section you will learn to assess a sick young infant age 1 week up to 2 months and to classify the infant's illnesses. The process is very similar to the one you learned for the sick child age 2 months up to 5 years. All the steps are described on the chart titled **ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT**.

Ask the mother what the young infant’s problems are. Determine if this is an initial or follow-up visit for these problems. If this is a follow-up visit, you should manage the infant according to the special instructions for a follow-up visit. These special instructions are found in the follow-up boxes at the bottom of the YOUNG INFANT chart, and are further described in **Chapter 30**.

**SUMMARY OF ASSESS AND CLASSIFY**

1. **Ask the mother or caretaker about the young infant's problem.**

2. **If this is an INITIAL VISIT for the problem, follow the steps below.**
   (If this is a follow-up visit for the problem, give follow-up care according to PART VII)

3. **Check for POSSIBLE BACTERIAL INFECTION** and classify the illness.

4. Ask the mother or caretaker about DIARRHOEA:
   - If diarrhoea is present:
     - assess the infant further for signs related to diarrhoea, and
     - classify the illness according to the signs which are present or absent.

5. **Check for FEEDING PROBLEM OR LOW WEIGHT** and classify the infant's nutritional status.

6. Check the infant's immunization status and decide if the infant needs any immunizations today.

7. **Assess any other problems.**

   Then: Identify Treatment (PART IV), Treat the Infant (PART V), and Counsel the Mother (PART VI)
Young infants have special characteristics that must be considered when classifying their illnesses. They can become sick and die very quickly from serious bacterial infections. They frequently have only general signs such as few movements, fever, or low body temperature. Mild chest indrawing is normal in young infants because their chest wall is soft. For these reasons, you will assess, classify and treat the young infant somewhat differently than an older infant or young child. The *ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT* chart lists the special signs to assess, the classifications, and the treatments for young infants.

The chart is *not* used for a sick newborn, that is a young infant who is less than 1 week of age. In the first week of life, newborn infants are often sick from conditions related to labour and delivery, or have conditions which require special management. Newborns may be suffering from asphyxia, sepsis from premature ruptured membranes or other intrauterine infection, or birth trauma. Or they may have trouble breathing due to immature lungs. Jaundice also requires special management in the first week of life. For all these reasons, management of a sick newborn is somewhat different from caring for a young infant age 1 week up to 2 months.

Some of what you already learned in managing sick children age 2 months up to 5 years will be useful for young infants. The next chapter will focus on new information and skills that you need to manage young infants. There is a special recording form for young infants (see *Annex B*). It is similar in format to the form for older infants and young children. It lists signs to assess in a young infant.
CHAPTER 15
Assess and classify the sick young infant

This chapter describes the steps to assess and classify a sick young infant during an initial visit. The steps are:

- Check for signs of possible bacterial infection. Then classify the young infant based on the clinical signs found.
- Ask about diarrhoea. If the infant has diarrhoea, assess for related signs. Classify the young infant for dehydration. Also classify for persistent diarrhoea and dysentery if present.
- Check for feeding problem or low weight. This may include assessing breastfeeding. Then classify feeding.
- Check the young infant’s immunization status.
- Assess any other problems.

If you find a reason that a young infant needs urgent referral, you should continue the assessment. However, skip the breastfeeding assessment because it can take some time.

15.1 How to check a young infant for possible bacterial infection

For ALL sick young infants check for signs of POSSIBLE BACTERIAL INFECTION

CHECK FOR POSSIBLE BACTERIAL INFECTION

ASK:
- Has the infant had convulsions?

LOOK, LISTEN, FEEL:
- Count the breaths in one minute. Repeat the count if elevated.
- Look for severe chest indrawing.
- Look for nasal flaring.
- Look and listen for grunting.
- Look and feel for bulging fontanelle.
- Look for pus draining from the ear.
- Look at the umbilicus. Is it red or draining pus?
  Does the redness extend to the skin?
  Measure temperature (or feel for fever or low body temperature).
- Look for skin pustules. Are there many or severe pustules?
- See if the young infant is lethargic or unconscious.
- Look at the young infant’s movements. Are they less than normal?

YOUNG INFANT MUST BE CALM

CLASSIFY the infant’s illness using the colour-coded classification table for possible bacterial infection.

Then ASK about diarrhoea. CHECK for feeding problem or low weight, immunization status and for other problems.
This assessment step is done for every sick young infant. In this step you are looking for signs of bacterial infection, especially a serious infection. A young infant can become sick and die very quickly from serious bacterial infections such as pneumonia, sepsis and meningitis.

It is important to assess the signs in the order on the chart, and to keep the young infant calm. The young infant must be calm and may be asleep while you assess the first four signs, that is, count breathing and look for chest indrawing, nasal flaring and grunting.

To assess the next few signs, you will pick up the infant and then undress him, look at the skin all over his body and measure his temperature. By this time he will probably be awake. Then you can see if he is lethargic or unconscious and observe his movements.

Check for possible bacterial infection in ALL young infants.

▼ ASK: HAS THE INFANT HAD CONVULSIONS?
Ask the mother this question.

▼ LOOK: COUNT THE BREATHS IN ONE MINUTE. REPEAT THE COUNT IF ELEVATED
Count the breathing rate as you would in an older infant or young child. Young infants usually breathe faster than older infants and young children. The breathing rate of a healthy young infant is commonly more than 50 breaths per minute. Therefore, 60 breaths per minute or more is the cutoff used to identify fast breathing in a young infant.

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

▼ LOOK FOR SEVERE CHEST INDRAWING
Look for chest indrawing as you would look for chest indrawing in an older infant or young child. However, mild chest indrawing is normal in a young infant because the chest wall is soft. Severe chest indrawing is very deep and easy to see. Severe chest indrawing is a sign of pneumonia and is serious in a young infant.

▼ LOOK FOR NASAL FLARING
Nasal flaring is widening of the nostrils when the young infant breathes in.

Normal position of nostrils

Nostrils flare when infant breathes in
\section*{Look and Listen for Grunting}

Grunting is the soft, short sounds a young infant makes when breathing out. Grunting occurs when an infant is having trouble breathing.

\section*{Look and Feel for Bulging Fontanelle}

The fontanelle is the soft spot on the top of the young infant's head, where the bones of the head have not formed completely. Hold the young infant in an upright position. The infant must not be crying. Then look at and feel the fontanelle. If the fontanelle is bulging rather than flat, this may mean the young infant has meningitis.

\section*{Look for Pus Draining from the Ear}

Pus draining from the ear is a sign of infection. Look inside the infant's ear to see if pus is draining from the ear.

\section*{Look at the Umbilicus—Is it Red or Draining Pus? Does the Redness Extend to the Skin?}

There may be some redness of the end of the umbilicus or the umbilicus may be draining pus. (The cord usually drops from the umbilicus by one week of age.) How far down the umbilicus the redness extends determines the severity of the infection. If the redness extends to the skin of the abdominal wall, it is a serious infection.

\section*{Feel: Measure Temperature (or Feel for Fever or Low Body Temperature)}

Fever (axillary temperature more than 37.5 °C or rectal temperature more than 38 °C) is uncommon in the first two months of life. If a young infant has fever, this may mean the infant has a serious bacterial infection. In addition, fever may be the only sign of a serious bacterial infection. Young infants can also respond to infection by dropping their body temperature to below 35.5 °C (36 °C rectal temperature). Low body temperature is called hypothermia. If you do not have a thermometer, feel the infant's stomach or axilla (underarm) and determine if it feels hot or unusually cool.

\section*{Look for Skin Pustules. Are There Many or Severe Pustules?}

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

\section*{Look: See if the Young Infant Is Lethargic or Unconscious}

Young infants often sleep most of the time, and this is not a sign of illness. Even when awake, a healthy young infant will usually not watch his mother and a health worker while they talk, as an older infant or young child would.

A lethargic young infant is not awake and alert when he should be. He may be drowsy and may not stay awake after a disturbance. If a young infant does not wake up during the assessment, ask the mother to wake him. Look to see if the child wakens when the mother talks or gently shakes the child or when you clap your hands. See if he stays awake.

An unconscious young infant cannot be wakened at all. He does not respond when he is touched or spoken to.

\section*{Look at the Young Infant’s Movements. Are They Less Than Normal?}

A young infant who is awake will normally move his arms or legs or turn his head several times in a minute if you watch him closely. Observe the infant’s movements while you do the assessment.
15.2 How to classify possible bacterial infection

Classify all sick young infants for bacterial infection. Compare the infant’s signs to signs listed on the colour-coded table and choose the appropriate classification. There are two possible classifications for bacterial infection: POSSIBLE SERIOUS BACTERIAL INFECTION and LOCAL BACTERIAL INFECTION (see Example 19). In Parts IV, V and VI you will read about how to identify treatments and to treat young infants with these classifications.

**EXAMPLE 19: CLASSIFICATION TABLE FOR POSSIBLE BACTERIAL INFECTION**

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Convulsions or fast breathing (60 breaths per minute or more) or severe chest indrawing or nasal flaring or grunting or bulging fontanelle or pus draining from ear or umbilical redness extending to the skin or • Fever (37.5 °C or above or feels hot) or low body temperature (less than 35.5 °C or feels cold) or • Many or severe skin pustules or • Lethargic or unconscious or • Less than normal movement.</td>
<td>POSSIBLE SERIOUS BACTERIAL INFECTION</td>
<td>• Give first dose of intramuscular antibiotics. • Treat to prevent low blood sugar. • Advise mother how to keep the infant warm on the way to hospital. • Refer URGENTLY to hospital.</td>
</tr>
<tr>
<td>• Red umbilicus or draining pus or skin pustules.</td>
<td>LOCAL BACTERIAL INFECTION</td>
<td>• Give an appropriate oral antibiotic. • Teach the mother to treat local infections at home. • Advise mother to give home care for the young infant. • Follow-up in 2 days.</td>
</tr>
</tbody>
</table>

* These thresholds are based on axillary temperature. The thresholds for rectal temperature readings are approximately 0.5 °C higher.

**POSSIBLE SERIOUS BACTERIAL INFECTION**

A young infant with signs in this classification may have a serious disease and be at high risk of dying. The infant may have pneumonia, sepsis or meningitis. It is difficult to distinguish between these infections in a young infant. Fortunately, it is not necessary to make this distinction.

A young infant with any sign of POSSIBLE SERIOUS BACTERIAL INFECTION needs urgent referral to hospital. Before referral, give a first dose of intramuscular antibiotics and treat to prevent low blood sugar. Malaria is unusual in infants of this age, so give no treatment for possible severe malaria. Advise the mother to keep her sick young infant warm. Young infants have difficulty maintaining their body temperature. Low temperature alone can kill young infants.

**LOCAL BACTERIAL INFECTION**

Young infants with this classification have an infected umbilicus or a skin infection. Treatment includes giving an appropriate oral antibiotic at home for 5 days. You will learn more about how to treat the infant and counsel the mother in later chapters.
15.3 How to assess and classify a young infant for diarrhoea

For ALL sick young infants check for signs of possible bacterial infection and then
ASK: DOES THE YOUNG INFANT HAVE DIARRHOEA?

IF YES: ASSESS AND CLASSIFY the young infant’s diarrhoea using the DIARRHOEA box in the YOUNG INFANT chart. The process is very similar to the one used for the sick child (see Chapter 8).

Then CHECK for feeding problem or low weight, immunization status and other problems.

If the mother says that the young infant has diarrhoea, assess and classify for diarrhoea. The normally frequent or loose stools of a breastfed baby are not diarrhoea. The mother of a breastfed baby can recognize diarrhoea because the consistency or frequency of the stools is different than normal. The assessment is similar to the assessment of diarrhoea for an older infant or young child, but fewer signs are checked. Thirst is not assessed. This is because it is not possible to distinguish thirst from hunger in a young infant.

Diarrhoea in a young infant is classified in the same way as in an older infant or young child. Compare the infant’s signs to the signs listed and choose one classification for dehydration. Choose an additional classification if the infant has diarrhoea for 14 days or more, or has blood in the stool.

Note: there is only one possible classification for persistent diarrhoea in a young infant. This is because any young infant who has persistent diarrhoea has suffered with diarrhoea a large part of his life and should be referred.

15.4 How to check a young infant for feeding problem or low weight

Adequate feeding is essential for growth and development. Poor feeding during infancy can have lifelong effects. Growth is assessed by determining weight for age. It is important to assess a young infant’s feeding and weight so that feeding can be improved if necessary.

The best way to feed a young infant is to breastfeed exclusively. Exclusive breastfeeding means that the infant takes only breastmilk, and no additional food, water or other fluids. (Medicines and vitamins are exceptions.)

Exclusive breastfeeding gives a young infant the best nutrition and protection from disease possible. If mothers understand that exclusive breastfeeding gives the best chances of good growth and development, they may be more willing to breastfeed. They may be motivated to breastfeed to give their infants a good start in spite of social or personal reasons that make exclusive breastfeeding difficult or undesirable.

The assessment has two parts. In the first part, you ask the mother questions. You determine if she is having difficulty feeding the infant, what the young infant is fed and how often. You also determine weight for age.

In the second part, if the infant has any problems with breastfeeding or is low weight for age, you assess how the infant breastfeeds.
For ALL sick young infants check for signs of possible bacterial infection, ask about diarrhoea and then CHECK FOR FEEDING PROBLEM OR LOW WEIGHT.

### THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT

**ASK:**
- Is there any difficulty feeding?
- Is the infant breastfed? If yes, how many times in 24 hours?
- Does the infant usually receive any other foods or drinks?
  - If yes, how often?
- What do you use to feed the infant?

**LOOK, LISTEN, FEEL:**
- Determine weight for age.

<table>
<thead>
<tr>
<th>IF AN INFANT:</th>
<th>ASSESS BREASTFEEDING:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Has any difficulty feeding,</strong></td>
<td></td>
</tr>
<tr>
<td>Is breastfeeding less than 8 times in 24 hours,</td>
<td></td>
</tr>
<tr>
<td>Is taking any other foods or drinks, or</td>
<td></td>
</tr>
<tr>
<td>Is low weight for age,</td>
<td></td>
</tr>
<tr>
<td><strong>AND</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Has no indications to refer urgently to hospital:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**IF THE INFANT:**
If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeeding for 4 minutes.

(If the infant was fed during the last hour, ask the mother if she can wait and tell you when the infant is willing to feed again.)

- **Is the infant able to attach?**
  - no attachment at all
  - not well attached
  - good attachment

**TO CHECK ATTACHMENT, LOOK FOR:**
- Chin touching breast
- Mouth wide open
- Lower lip turned outward
- More areola visible above then below the mouth

(All these signs should be present if the attachment is good.)

- **Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?**
  - no suckling at all
  - not suckling effectively
  - suckling effectively

Clear a blocked nose if it interferes with breastfeeding.

- **Look for ulcers or white patches in the mouth (thrush).**

**CLASSIFY** the infant's nutritional status using the colour-coded classification table for feeding problem or low weight.

Then CHECK immunization status and for other problems.

---

### 15.4.1 How to ask about feeding and determine weight for age

**ASK: IS THERE ANY DIFFICULTY FEEDING?**

Any difficulty mentioned by the mother is important. This mother may need counselling or specific help with a difficulty.\(^1\) If a mother says that the infant is not able to feed,

---

\(^1\) Breastfeeding difficulties mentioned by a mother may include: her infant feeds too frequently, or not frequently enough; she does not have enough milk; her nipples are sore; she has flat or inverted nipples; or the infant does not want to take the breast.
assess breastfeeding or watch her try to feed the infant with a cup to see what she means by this. An infant who is not able to feed may have a serious infection or other life-threatening problem and should be referred urgently to hospital.

\textbf{ASK: IS THE INFANT BREASTFED? IF YES, HOW MANY TIMES IN 24 HOURS?}
The recommendation is that the young infant be breastfed as often and for as long as the infant wants, day and night. This should be 8 or more times in 24 hours.

\textbf{ASK: DOES THE INFANT USUALLY RECEIVE ANY OTHER FOODS OR DRINKS? IF YES, HOW OFTEN?}
A young infant should be exclusively breastfed. Find out if the young infant is receiving any other foods or drinks such as other milk, juice, tea, thin porridge, dilute cereal, or even water. Ask how often he receives it and the amount. You need to know if the infant is mostly breastfed, or mostly fed on other foods.

\textbf{ASK: WHAT DO YOU USE TO FEED THE INFANT?}
If an infant takes other foods or drinks, find out if the mother uses a feeding bottle or cup.

\textbf{LOOK: DETERMINE WEIGHT FOR AGE}
Use a weight for age chart to determine if the young infant is low weight for age. Notice that for a young infant you should use the Low Weight for Age line, instead of the Very Low Weight for Age line, which is used for older infants and children. Remember that the age of a young infant is usually stated in weeks, but the Weight for Age chart is labeled in months. Some young infants who are low weight for age were born with low birthweight. Some did not gain weight well after birth.
15.4.2 How to assess breastfeeding

First decide whether to assess the infant’s breastfeeding:

- If the infant is exclusively breastfed without difficulty and is not low weight for age, there is no need to assess breastfeeding.
- If the infant is not breastfed at all, do not assess breastfeeding.
- If the infant has a serious problem requiring urgent referral to a hospital, do not assess breastfeeding.

In these situations, classify the feeding based on the information that you have already.

If the mother’s answers or the infant’s weight indicates a difficulty, observe a breastfeed as described below. Low weight for age is often due to low birthweight. Low birthweight infants are particularly likely to have a problem with breastfeeding. Assessing breastfeeding requires careful observation.

▼ ASK: HAS THE INFANT BREASTFED IN THE PREVIOUS HOUR?

If yes, ask the mother to wait and tell you when the infant is willing to feed again. In the meantime, complete the assessment by assessing the infant’s immunization status. You may also decide to begin any treatment that the infant needs, such as giving an antibiotic for LOCAL BACTERIAL INFECTION or ORS solution for SOME DEHYDRATION.

If the infant has not fed in the previous hour, he may be willing to breastfeed. Ask the mother to put her infant to the breast. Observe a whole breastfeed if possible, or observe for at least 4 minutes. Sit quietly and watch the infant breastfeed.

▼ LOOK: IS THE INFANT ABLE TO ATTACH?

The four signs of good attachment are (If all of these four signs are present, the infant has good attachment):

- chin touching breast (or very close)
- mouth wide open
- lower lip turned outward
- more areola visible above than below the mouth

If attachment is not good, you may see (If you see any of these signs of poor attachment, the infant is not well attached):

- chin not touching breast
- mouth not wide open, lips pushed forward
- lower lip turned in, or
- more areola (or equal amount) visible below infant’s mouth than above it

If a very sick infant cannot take the nipple into his mouth and keep it there to suck, he
has **no attachment at all**. He is not able to breastfeed at all. If an infant is not well attached, the results may be pain and damage to the nipples. Or the infant may not remove breastmilk effectively, which may cause engorgement of the breast. The infant may be unsatisfied after breastfeeds and want to feed very often or for a very long time. The infant may get too little milk and not gain weight, or the breastmilk may dry up. All these problems may improve if attachment can be improved.

**LOOK: IS THE INFANT SUCKLING EFFECTIVELY? (THAT IS, SLOW DEEP SUCKS, SOMETIMES PAUSING)**

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

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

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

**LOOK FOR ULCERS OR WHITE PATCHES IN THE MOUTH (THRUSH)**

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

### 15.5 How to classify feeding problem or low weight

Compare the young infant’s signs to the signs listed in each row of the colour-coded classification table and choose the appropriate classification. There are three possible classifications for feeding problem or low weight: **NOT ABLE TO FEED—POSSIBLE SERIOUS BACTERIAL INFECTION**, **FEEDING PROBLEM OR LOW WEIGHT**, and **NO FEEDING PROBLEM** (see Example 20).

In **Parts IV, V and VI** you will read about how to identify treatments and to treat young infants with these classifications.

**NOT ABLE TO FEED—POSSIBLE SERIOUS BACTERIAL INFECTION**

The young infant who is not able to feed has a life-threatening problem. This could be due to a bacterial infection or another sort of problem. The infant requires immediate attention. Treatment is the same as for the classification POSSIBLE SERIOUS BACTERIAL INFECTION at the top of the chart. Refer the young infant urgently to hospital.

This classification includes infants who are low weight for age or infants who have some sign that their feeding needs improvement. They are likely to have more than one of these signs. Advise the mother of any young infant in this classification to breastfeed as often and for as long as the infant wants, day and night. Short breastfeeds are an impor-

---

1 An infant with neonatal tetanus who has stopped being able to feed and has stiffness would be referred based on this classification.
EXAMPLE 20: CLASSIFICATION TABLE FOR FEEDING PROBLEM OR LOW WEIGHT

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not able to feed or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No attachment at all or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Not suckling at all:</td>
<td>NOT ABLE TO FEED—POSSIBLE SERIOUS BACTERIAL INFECTION</td>
<td>▶ Give first dose of intramuscular antibiotics.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Treat to prevent low blood sugar.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Advise the mother how to keep the young infant warm on the way to hospital.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Refer URGENTLY to hospital.</td>
</tr>
<tr>
<td>• Not well attached to breast or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Not suckling effectively or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Less than 8 breastfeeds in 24 hours or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Receives other foods or drinks or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Low weight for age or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Thrush (ulcers or white patches in mouth).</td>
<td>FEEDING PROBLEM OR LOW WEIGHT</td>
<td>▶ Advise the mother to breastfeed as often and for as long as the infant wants, day and night.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ If not well attached or not suckling effectively, teach correct positioning and attachment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ If receiving other foods or drinks, counsel mother about breastfeeding more, reducing other foods or drinks, and using a cup.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ If not breastfeeding at all:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>— Refer for breastfeeding counselling and possible lactation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>— Advise about correctly prepared breastmilk substitutes and using a cup.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ If thrush, teach the mother to treat thrush at home.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Advise mother to give home care for the young infant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Follow-up any feeding problem or thrush in 2 days. Follow-up low weight for age in 14 days.</td>
</tr>
<tr>
<td>• Not low weight for age and no other signs of inadequate feeding.</td>
<td>NO FEEDING PROBLEM</td>
<td>▶ Advise mother to give home care for the young infant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Praise the mother for feeding the infant well.</td>
</tr>
</tbody>
</table>

The infant should breastfeed until he is finished. Teach each mother about any specific help her infant needs, such as better positioning and attachment for breastfeeding, or treating thrush.

A young infant in this classification is exclusively and frequently breastfed. “Not low” weight for age means that the infant’s weight for age is not below the line for “Low Weight for Age”. It is not necessarily normal or good weight for age, but the infant is not in the high-risk category.

15.6 How to check the young infant’s immunization status

Check immunization status just as you would for an older infant or young child (see Chapter 12). Remember that you should not give OPV 0 to an infant who is more than 14 days old. Therefore, if an infant has not received OPV 0 by the time he is 15 days old, you should wait to give OPV until he or she is 6 weeks old. Then give OPV 1.

15.7 How to assess other problems

Assess any other problems mentioned by the mother or observed by you. Refer to other guidelines on treatment of those problems. If you think the infant has a serious problem, or if you do not know how to help the infant, refer the infant to hospital.
15.8 The young infant case recording form

As you assess and classify the sick young infant, circle the signs found and write the classification(s) on the young infant case recording form (see Example 21). You will find sample case recording forms in Annex B.

**EXAMPLE 21: TOP THREE SECTIONS OF THE YOUNG INFANT CASE RECORDING FORM**

<table>
<thead>
<tr>
<th>MANAGEMENT OF THE SICK YOUNG INFANT AGE 1 WEEK UP TO 2 MONTHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Jomli</td>
</tr>
<tr>
<td>ASSESS (Circle all signs present)</td>
</tr>
<tr>
<td>CHECK FOR POSSIBLE BACTERIAL INFECTION</td>
</tr>
<tr>
<td>- Has the infant had convulsions?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>DOES THE YOUNG INFANT HAVE DIARRHOEA?</td>
</tr>
<tr>
<td>- For how long? 2 Days</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT</td>
</tr>
<tr>
<td>- Is there any difficulty feeding? Yes  No</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>If the infant has any difficulty feeding or feeding less than 8 times in 24 hours, is taking any other food or drinks, or is low weight for age AND has no indications to be referred to hospital</td>
</tr>
<tr>
<td>ASSESS BREASTFEEDING:</td>
</tr>
<tr>
<td>- Has the infant breastfed in the previous hour?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**CASE 5:** Jomli is a 6-week-old infant. His weight is 4.5 kg. His axillary temperature is 37 °C. He is brought to the clinic because he has diarrhoea and a rash. It is his first visit for this illness. The health worker checks the young infant for signs of possible bacterial infection. His mother says that Jomli has not had convulsions. The health worker counts 55 breaths per minute. He finds no chest indrawing or nasal flaring. Jomli has no grunting. The fontanelle
does not bulge. There is no pus in his ears. The umbilicus is normal. The body temperature is normal. There are some skin pustules. Jomli is not lethargic or unconscious, and his movements are normal.

When the health worker asks the mother about Jomli’s diarrhoea, the mother replies that it began 3 days ago, and there is no blood in the stool. Jomli is crying. He stopped once when his mother put him to the breast. He began crying again when she stopped breastfeeding. His eyes look normal, not sunken. When the skin of his abdomen is pinched, it goes back slowly.

Jomli’s mother says that she has no difficulty feeding him. He breastfeeds about 5 times in 24 hours. She gives him other foods and drinks. The health worker uses the Weight for Age chart and determines that Jomli’s weight (4.5 kg) is not low for his age (6 weeks).

Since Jomli is feeding less than 8 times in 24 hours and is taking other food or drinks, the health worker decides to assess breastfeeding. Jomli’s mother agrees to try to breastfeed now. The health worker observes that Jomli’s chin is touching the breast. His mouth is open wide, and his lower lip is turned outward. More areola is visible above than below the mouth. His suck is deep and slow. When Jomli stops breastfeeding, the health worker looks in his mouth. He sees no ulcers or white patches in his mouth.
Part IV
IDENTIFY
TREATMENT
ASSESS ALL sick children and sick young infants. CLASSIFY their illnesses according to the appropriate classification tables, and then DETERMINE IF URGENT REFERRAL IS NEEDED.

IF YES

IDENTIFY urgent pre-referral treatment(s) needed

GIVE pre-referral treatment(s) identified.

REFER the child or young infant.

IF NO

IDENTIFY treatment(s) for patients who do not need urgent referral.

TREAT the sick child or the sick young infant.

TEACH the child's caretaker how to give treatments at home.

COUNSEL the mother (or caretaker) about feeding, fluids, and when to return.

GIVE FOLLOW-UP CARE when the infant or child returns to the clinic and, if necessary, reassess for new problems (see Part VII).

In the previous sections you learned to assess a sick child age 2 months up to 5 years, and a sick young infant age 1 week up to 2 months, and to classify their illness or illnesses. The next step is to identify the necessary treatments. In some instances, the very sick infant or child will need URGENT referral to a hospital for additional care. If so, you need to start urgent treatments before the child's departure.

While reading this section you should refer to the IDENTIFY TREATMENT column of the ASSESS & CLASSIFY charts. If an infant or child has only one classification, it is easy to see what to do for the child. However, many sick infants and children have more than one classification. For example, a child may have both PNEUMONIA and an ACUTE EAR INFECTION.

When a child has more than one classification, you must look at more than one classification table on the ASSESS & CLASSIFY charts to see the treatments listed. The coloured rows help you to quickly identify treatment.
A classification in a pink row needs urgent attention and referral or admission for inpatient care. This is a severe classification.

A classification in a yellow row means that the child needs an appropriate oral drug or other treatment. The treatment includes teaching the child's caretaker how to give oral drugs or to treat local infections at home. You also must advise her about caring for the child at home and when she should return.

A classification in a green row means the child does not need specific medical treatment such as antibiotics. Teach the child's caretaker how to care for the child at home. For example, you might advise her on feeding her sick child or giving fluid for diarrhoea. Then teach her signs indicating that the child should return immediately to the health facility.

Some of the treatments may be the same. For example, both pneumonia and ear infection require an antibiotic. You must notice which treatments are the same and can be used for both problems, and which treatments are different.

For some classifications, the treatment column says to “Refer URGENTLY to hospital.” Hospital means a health facility with inpatient beds, supplies and expertise to treat a very sick infant or child. If a health facility has inpatient beds, referral may mean admission to the inpatient department of that facility.

If an infant or child must be referred urgently, you must decide which treatments to do before referral. Some treatments (such as wicking an ear) are not necessary before referral. This section will help you to identify urgent pre-referral treatments.

If there is no hospital in the area, you may make some decisions differently than described in this section. You should only refer a child if you expect the child will actually receive better care. In some cases, giving your very best care is better than sending a child on a long trip to a hospital that may not have the supplies or expertise to care for the child.

If referral is not possible, or if the parents refuse to take the child, you should help the family care for the child. The child may stay near the clinic to be seen several times a day. Or a health worker may visit the home to help give drugs on schedule and to help give fluids and food.

16.1 How to determine if the sick young infant needs urgent referral

If the young infant age 1 week up to 2 months has POSSIBLE SERIOUS BACTERIAL INFECTION, he needs urgent referral.

If the young infant has SEVERE DEHYDRATION (and does not have POSSIBLE SERIOUS BACTERIAL INFECTION), the infant needs rehydration with IV fluids according to Plan C. If you can give IV therapy, you can treat the infant in the clinic. Otherwise urgently refer the infant for IV therapy.

If a young infant has both SEVERE DEHYDRATION and POSSIBLE SEVERE BACTERIAL INFECTION, refer the infant urgently to hospital. The mother should give frequent sips of ORS on the way and continue breastfeeding.

If a young infant is NOT ABLE TO FEED—POSSIBLE SERIOUS BACTERIAL INFECTION, refer the infant urgently to hospital.

16.2 How to determine if the sick child needs urgent referral

All severe classifications on the ASSESS & CLASSIFY chart are coloured pink and include:
SEVERE PNEUMONIA OR VERY SEVERE DISEASE
SEVERE DEHYDRATION
SEVERE PERSISTENT DIARRHOEA
VERY SEVERE FEBRILE DISEASE
SEVERE COMPLICATED MEASLES
MASTOIDITIS
SEVERE MALNUTRITION OR SEVERE ANAEMIA

In the treatment column for these severe classifications there is an instruction “Refer URGENTLY to hospital”. This instruction means to refer the child immediately after giving any necessary pre-referral treatments. Do not give treatments that would unnecessarily delay referral.

*Exception:* For SEVERE PERSISTENT DIARRHOEA, the instruction is simply to “Refer to hospital.” This means that referral is needed, but not as urgently. There is time to identify treatments and give all of the treatments before referral.

*There is one more possible exception:* You may keep and treat a child whose only severe classification is SEVERE DEHYDRATION if the clinic has the ability to treat the child. This child may have a general danger sign related to dehydration. For example, he may be lethargic, unconscious, or not able to drink because he is severely dehydrated. If the child has another severe classification in addition to SEVERE DEHYDRATION, the child should be urgently referred. Special skills and knowledge are required to rehydrate this child, as too much fluid given too quickly could endanger this child’s life.

Most children who have a GENERAL DANGER SIGN also have a severe classification. They will be referred for their severe classification (or possibly treated if they have SEVERE DEHYDRATION only). In rare instances, children may have a general danger sign or signs without a severe classification. These children should be referred urgently.

The ASSESS & CLASSIFY chart does not include all problems that children may have. You should decide: Does the child have any other severe problem that cannot be treated at this clinic? For example, the child may have a severe problem that is not covered on the chart, such as severe abdominal pain. If you cannot treat a severe problem, you will need to refer the child.
CHAPTER 17

Identify urgent pre-referral treatment

Most classifications in the pink (or top) row of the classification tables in the ASSESS & CLASSIFY charts include “Refer URGENTLY to hospital” in the treatment column. When a young infant or a child needs urgent referral, you must quickly identify and begin the most urgent treatments for that child. Urgent treatments are in bold print on the classification tables. You will give just the first dose of the drugs before referral.

Appropriate treatments are recommended for each classification. For example, a child with the classification VERY SEVERE FEBRILE DISEASE could have meningitis, severe malaria or sepsicaemia. The treatments listed for VERY SEVERE FEBRILE DISEASE are appropriate because they have been chosen to cover the most likely diseases included in this classification.

Below are the urgent pre-referral treatments for young infants age 1 week up to 2 months:

- Give first dose of intramuscular or oral antibiotics
- Advise the mother how to keep the infant warm on the way to the hospital (If the mother is familiar with wrapping her infant next to her body, this is a good way to keep him or her warm on the way to the hospital. Keeping a sick young infant warm is very important).
- Treat to prevent low blood sugar.
- Refer urgently to hospital with mother giving frequent sips of ORS on the way. Advise mother to continue breastfeeding.

The following are urgent pre-referral treatments for sick children age 2 months up to 5 years:

- Give an appropriate antibiotic
- Give quinine for severe malaria
- Give vitamin A
- Treat the child to prevent low blood sugar
- Give an oral antimalarial
- Give paracetamol for high fever (38.5°C or above) or pain from mastoiditis
- Apply tetracycline eye ointment (if clouding of the cornea or pus draining from eye)
- Provide ORS solution so that the mother can give frequent sips on the way to the hospital

Note: The first four treatments above are urgent because they can prevent serious consequences such as progression of bacterial meningitis or cerebral malaria, corneal rupture due to lack of vitamin A, or brain damage from low blood sugar. The other listed treatments are also important to prevent worsening of the illness.

Do not delay referral to give non-urgent treatments. For example, do not wick the ear, or give oral iron treatment, or teach a mother how to treat a local infection before referral. If immunizations are needed, do not give them before referral. Let hospital personnel determine when to give immunizations. This will avoid delaying referral.
Write the **urgent pre-referral** treatments identified for each classification on the reverse side of the case recording form (see Example 22).

**EXAMPLE 22: TOP (REVERSE SIDE) OF A FOLDED CASE RECORDING FORM**

<table>
<thead>
<tr>
<th>YEARS</th>
<th>TREAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 kg</td>
<td>Temperature: <strong>37.5 °C</strong></td>
</tr>
<tr>
<td>Yes</td>
<td>Follow-up Visit? ✔</td>
</tr>
<tr>
<td>CLASSIFY</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>General danger signs present?</td>
</tr>
<tr>
<td>No</td>
<td>Remember to use danger sign when selecting classifications</td>
</tr>
<tr>
<td>Severe Pneumonia or Very Severe Disease</td>
<td></td>
</tr>
</tbody>
</table>

Remember to refer any child who has a danger sign and no other severe classification.

| First dose antibiotic for pneumonia |
| Refer Urgently to hospital |

You will learn the steps for referral, including how to give urgent pre-referral treatments, in **Chapter 20**.
CHAPTER 18

Identify treatment for patients who do not need urgent referral

For each classification listed on the front of the case recording form, you will write the treatments needed on the back of the form. For patients who do not need URGENT referral, you should record the treatments, advice to give the mother, and when to return for a follow-up visit.

If a child has multiple classifications, identify treatment for all problems present. Some treatments are listed for more than one classification. For example, vitamin A is listed for both MEASLES and SEVERE MALNUTRITION OR SEVERE ANAEMIA. If a patient has both of these problems, you need only list vitamin A once on the case recording form.

However, if an antibiotic is needed for more than one problem, you should identify it each time, for example:

  antibiotic for pneumonia
  antibiotic for Shigella

When the same antibiotic is appropriate for two different problems, you can give that single antibiotic. However, two problems may require two different antibiotics. You will learn how to choose the correct antibiotics in Chapter 21.

18.1 Problems that require special explanation

Most instructions in the “Identify Treatment” column of the ASSESS & CLASSIFY charts are easily understood. However, there are some instructions that require special explanation:

- **MALARIA**: Children will usually be given the first-line antimalarial recommended by national policy. However, if the child has cough and fast breathing (PNEUMONIA) or another problem for which the antibiotic cotrimoxazole will be given (such as ACUTE EAR INFECTION), cotrimoxazole will serve as treatment for the malaria as well.

- **ANAEMIA OR VERY LOW WEIGHT**: A child with palmar pallor should begin iron treatment for anaemia. If there is high risk of malaria, a child with pallor should also be given an oral antimalarial, even if the child does not have a fever. If the child is 2 years of age or older and has not had a dose of mebendazole in the past 6 months, the child should also be given a dose of mebendazole for possible hookworm or whipworm infection.

18.2 Non-urgent referral

If an infant or child does not need URGENT referral, check to see if the child needs non-urgent referral for further assessment. For example, for a cough which has lasted more than 30 days, or for fever which has lasted 7 days or more, you would record, “Refer for assessment.” Although the mother should take the child for assessment promptly, these referrals are not as urgent. Any other necessary treatments may be done before referral.
18.3 When to return immediately

Notice that the case recording form already lists the item, “Advise mother when to return immediately.” You do not need to list this again. You will need to teach each mother the signs that mean she should return immediately for more care for her child. You will learn these signs in Chapter 30.

18.4 Counsel the mother about feeding

You will learn to complete the feeding sections of the case recording form in Part VI. When a feeding assessment is needed, it may be done at any convenient time during the visit, after the child’s immediate needs are taken care of.

18.5 Follow-up

Be sure to include items that begin with the words “Follow-up.” These mean to tell the mother to return in a certain number of days. The follow-up visit is very important. It is used to see if the treatment is working, and to give other treatment needed. You may abbreviate follow-up as “F/up.”

If several different times are specified for follow-up, you will look for the earliest definite time. (A definite time is one that is not followed by the word “if”). For example:

- “Follow-up in 2 days” gives a definite time for follow-up.
- “Follow-up in 2 days if fever persists” is not definite. The child only needs to come back if the fever persists.

Record the earliest definite time for follow-up in the appropriate space on the back of the case recording form. This is the follow-up visit to tell the mother or caretaker about. (Also tell her about any earlier follow-up that may be needed if a condition such as fever persists). Later, when the mother returns for follow-up, you can tell her about any additional visits needed.

Follow-up visits are especially important for a young infant. If you find at the follow-up visit that the infant is worse, you will refer the infant to hospital. A young infant who receives antibiotics for local bacterial infection or dysentery should return for follow-up in 2 days. A young infant who has a feeding problem or thrush should return in 2 days. An infant with low weight for age should return for follow-up in 14 days.

Write the treatments identified for each classification on the reverse side of the case recording form (see Example 23).
**EXAMPLE 23: REVERSE SIDE OF A FOLDED CASE RECORDING FORM**

<table>
<thead>
<tr>
<th>YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>_ kg</td>
</tr>
<tr>
<td>?</td>
</tr>
</tbody>
</table>

**CLASSIFY**

General danger signs present?  
Yes, No ______  
Remember to use danger sign when selecting classifications

**TREAT**

Remember to refer any child who has a danger sign and no other severe classification.

<table>
<thead>
<tr>
<th>Pneumonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotic for pneumonia, 5 days</td>
</tr>
<tr>
<td>Soothe throat, relieve cough with safe remedy</td>
</tr>
<tr>
<td>F/up: 2 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute Ear Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotic for ear infection, 5 days</td>
</tr>
<tr>
<td>Paracetamol for ear pain</td>
</tr>
<tr>
<td>Dry ear by wicking</td>
</tr>
<tr>
<td>F/up: 5 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No Anaemia, Not Very Low Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Because child is less than 2 years old, assess feeding/ counsel mother on feeding. If feeding problem, F/up 5 days.</td>
</tr>
</tbody>
</table>

Return for next immunization on: ______

(Date)

**FEEDING PROBLEMS**

Instructions for completing this section are given in Chapter 29

In *Parts V and VI* you will learn how to give identified treatments and to counsel the child’s mother or caretaker.