## IMCI *By Jared*

**IMCI PROCESS**

**The guidelines do not describe the management of trauma or other acute emergencies due to accidents or injuries**.

***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

* urgent pre-referral treatment and referral (pink), or
* specific medical treatment and advice (yellow), or
* simple advice on home management (green).

**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-referraltreatment(s) needed-**REFER THE CHILD:** Explain to the child’scaretaker 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.

**Selecting the appropriate case management charts**

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.

■ *ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT.*

**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.

**Using the case management charts and case recording forms**

Guide one 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

**Child two months up to five years**

***SUMMARY OF ASSESS AND CLASSIFY***

Ask the mother or caretaker about the child’s problem.

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)

Check for general danger signs.

Ask the mother or caretaker about the four main symptoms:

* cough or difficult breathing, the main symptom, and
* diarrhoea,
* fever,
* ear problem.

When a main symptom is present:

* assess the child further for signs related to the main symptom,
* classify the illness according to the signs which are present or absent

Check for signs of malnutrition and anaemia and classify the child’s nutritional status

Check the child’s immunization status and decide if the child needs any immunizations today.

Assess any other problems

**Then**: Identify Treatment, Treat the Child and Counsel the Mother

**When a child is brought to the clinic**

**FOR ALL SICK CHILDREN AGE 2 MONTHS UP TO 5 YEARS WHO ARE BROUGHT TO THE CLINIC**

**GREET the mother appropriately and ask about her child. LOOK to see if the child’s weight and**

**temperature have been recorded ASK the mother what the child’s problems are DETERMINE if this is an initial visit or a follow-up visit for this problem**

IF this is an **INITIAL VISIT** for the problem **ASSESS** and **CLASSIFY** the child

IF this is a **FOLLOW-UP VISIT** for the problem **GIVE FOLLOW-UP**

**Use Good Communication Skills:**

* Listen carefully to what the mother tells you
* Use words the mother understands
* Give the mother time to answer the questions
* Ask additional questions when the mother is not sure about her answer

**Record Important Information**

**General danger signs**

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

***ASK:*** Is the child able to drink or breastfeed?.Does the child vomit everything?Is 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**

Then **ASK** about main symptoms: cough and difficult breathing, diarrhoea, fever, ear problems.

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

**Cough or difficult breathing**

***IF YES, ASK: LOOK, LISTEN, FEEL:***

● For how long?.

● Look for chest indrawing

● Look and listen for stridor

● Count the breaths in one minute

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

**If NO**

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

immunization status and for other problems

***Note:*** *The child who is exactly 12 months old has fast breathing if you count 40 breaths per*

*minute or more*

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

**SIGNS CLASSIFY AS IDENTIFY TREATMENT**

(Urgent pre-referral treatments are in bold print

|  |  |  |
| --- | --- | --- |
| Stridor in calm child.  Chest indrawing or  Any general danger**.**  sign | **SEVERE PNEUMONIA**  **OR VERY**  **SEVERE DISEASE** | ➤ **Give first dose of an appropriate antibiotic**  ➤ **Refer URGENTLY to hospital.** |
| Fast breathing | **PNEUMONIA** | **Give an appropriate oral antibiotic for 5 days.**  ➤ Soothe the throat and relieve the cough with  a safe remedy.  ➤ Advise mother when to return immediately.  ➤ Follow-up in 2 days. |
| No signs of pneumonia or very severe disease. | **NO PNEUMONIA:**  **COUGH OR COLD** | If coughing more than 30 days, refer for assessment.  ➤ Soothe the throat and relieve the cough with  a safe remedy.  ➤ Advise mother when to return immediately.  ➤ Follow-up in 5 days if not improving |

**Diarrhea**

**Does the child have diarrhoea?**

***IF YES, ASK: LOOK, LISTEN, FEEL:***

● For how long? ● Look at the child’s general condition.● Is there blood in the stool. 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** 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.

***CLASSIFICATION TABLE FOR DEHYDRATION***

|  |  |  |
| --- | --- | --- |
| 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 givingfrequent 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**.  **Refer URGENTLY to hospital with mother**  ● Skin pinch goes back **giving frequent sips of ORS on the way.**  slowly **Advise the mother to continue breastfeeding** |
| 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 |

***CLASSIFICATION TABLE FOR PERSISTENT DIARRHOEA***

|  |  |  |
| --- | --- | --- |
| Dehydration present | **SEVERE PERSISTENT**.  **DIARRHOEA** | Treat dehydration before referral unless the child has  another severe classification.  ➤Refer to hospital |
| No dehydration | **PERSISTENT DIARRHOEA** | Advise the mother on feeding a child who has  PERSISTENT DIARRHOEA.  ➤ Follow-up in 5 days |

**Classify Dysentery**

Blood in the stool-***Treat for 5 days with an oral antibiotic recommended for Shigella in your area.***

➤ Follow-up in 2 days.

**Fever**

**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: LOOK AND FEEL:***

● For how long? ● Look or feel for stiff neck. ● If more than 7 days, has ● Look for runny nose. fever been present every day? Look for signs of MEASLES ● Has the child had measles within the last 3 months? ● 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 symptom: ear problem, and CHECK for malnutrition and anaemia, immunization status and for other problems.

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).

***CLASSIFICATION TABLE FOR* HIGH MALARIA RISK**

|  |  |  |
| --- | --- | --- |
| 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 temperature37.5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 |

***CLASSIFICATION TABLE FOR* LOW MALARIA RISK AND NO TRAVEL TO A HIGH RISK AREA**

|  |  |  |
| --- | --- | --- |
| 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 cotrimox-**  **azole 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 |

***CLASSIFICATION TABLE FOR* NO MALARIA RISK AND NO TRAVEL TO A MALARIA RISK AREA**

|  |  |  |
| --- | --- | --- |
| Any general danger sign  ● Stiff neck | **VERY SEVER EFEBRILE 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 **fever (38.5****C or above).**  ● NO Stiff neck | **FEVER—MALARIA UNLIKELY** | ➤ **Give one dose of paracetamol in clinic for high**  ➤ 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 |

***CLASSIFICATION TABLE FOR MEASLES (IF MEASLES NOW OR WITHIN THE LAST 3 MONTHS)***

|  |  |  |
| --- | --- | --- |
| Any general danger sign  ● Clouding of cornea or  ● Deep or extensive  mouth ulcers. | **SEVERE COMPLICATED MEASLES\*\*\*** | ➤ **Give vitamin A.**  or ➤ **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.** |

**Ear problem**

***IF YES ASK: LOOK AND FEEL:***

● Is there ear pain? ● Look for pus draining from the ear.● Is ther ear discharge? ● Feel for tender swelling behind the ear.

If yes, for how long

**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.

|  |  |  |
| --- | --- | --- |
| Tender swelling behind**.**  the ear. | **MASTOIDITIS** | ➤ **Give first dose of an appropriate antibiotic**  **Give first dose of paracetamol for pain.**  ➤ **Refer URGENTLY to hospital.** |
| Pus is seen draining  from the ear and  discharge is reported  for less than 14 days,  or  ● Ear pain. | **ACUTE EAR INFECTION** | ➤ Give paracetamol for pain.➤ **Give an oral antibiotic for 5 days.** ➤ Dry the ear by wicking.  ➤ Follow-up in 5 days |
| Pus is seen draining  from the ear and  discharge is reported  for 14 days or more | **CHRONIC EAR INFECTION** | ➤ Dry the ear by wicking. ➤ Follow-up in 5 days. |
| No ear pain and No  pus seen draining from the ear. | **NO EAR INFECTION** | No additional treatment. |

**Malnutrition and anaemia**

***LOOK AND FEEL:***

● Look for visible severe wasting.● Look for palmar pallor. Is it: Severe palmar pallor? Some palmar pallor?

● Look for oedema of both feet.● Determine weight for age.

**CLASSIFY** the child’s illness using the colour-coded classification table for malnutrition and anaemia.

Then **CHECK** immunization status and for other problems.

|  |  |  |
| --- | --- | --- |
| Visible severe wasting or  ● Severe palmar pallor or**.**  ● Oedema of both feet | **SEVERE MALNUTRITION ORSEVERE 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  — 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  or 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 — If feeding problem, follow-up in 5 days.  ➤ Advise mother when to return immediately. |

**Immunization status**

**IMMUNIZATION SCHEDULE**

**AGE VACCINE**

**:** Birth BCG OPV-0

6 weeks Penta-1 OPV-1 PCV-1 ROTA-1

10 weeks Penta-2 OPV-2 PCV-2 ROTA-2

14 weeks Penta-3 OPV-3 PCV-3 IPV

9 months Measles

**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.*

Do not give BCG to a child known to have AIDS.

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.

Do not give DPT to a child with recurrent convulsions or another active neurological disease of the central nervous system.

**CHILD 2 WEEKS UP TO 2 MONTHS**

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

**CHECK FOR POSSIBLE BACTERIAL INFECTION**.

***ASK: LOOK, LISTEN, FEEL:***

● Has the infant had convulsions? ● 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?

**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

***CLASSIFICATION TABLE FOR POSSIBLE BACTERIAL INFECTION***

**POSSIBLE** **SERIOUS**  **BACTERIAL INFECTION**

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.

Convulsions or**.**

● Fast breathing (60 breaths per minute or more) or

● Severe chest indrawing or

● Nasal flaring or

● Grunting or

Bulging fontanelle

MANAGEMENT

➤ **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**

**LOCAL BACTERIAL INFECTION**

Red umbilicus or draining pus or Skin pustules.

**Management**

➤ **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

**Young infant for diarrhea feeding problem**

***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

IF AN INFANT: **Has any difficulty feeding, Is breastfeeding less than 8 times in 24 hours, Is taking any other foods or drinks, or Is low weight for age,** AND **Has no indications to refer urgently to hospital:**

ASSESS BREASTFEEDING:

● Has the infant breastfed in the previous hour?

If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.

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

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)- 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.

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

**Identify treatment**

A classification in a *pink* row needs urgent attention and referral or admission forinpatient 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.

**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
* **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.

**Identify urgent pre-referral treatment**

**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 other 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.*

**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 specialexplanation:

■ 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

TREATMENT

Treatment in clinic also involves:

➤ Teaching the child’s mother or caretaker to give oral drugs and/or treat local infections at home, and

➤ Counselling the mother or caretaker about feeding, fluids and when to return to the health facility.

**Give urgent pre-referral treatments**

You may need to give one or more of the following treatments in the clinic before the infant or child leaves for the hospital.

■ Intramuscular antibiotic if the child cannot take an oral antibiotic

■ Quinine for severe malaria

■ Breastmilk or sugar water to prevent low blood sugar

**Refer the infant or child**

Do the following **four steps** to refer an infant or child to hospital:

1. **Explain to the mother the need for referral, and get her agreement to take the child. If you suspect that she does not want to take the child, find out why**.
2. **Calm the mother’s fears and help her resolve any problem**
3. **Write a referral note for the mother to take with her to the hospital. Tell her to give it to the health worker there**
4. **Give the mother any supplies and instructions needed to care for her child on the way to the hospital**:

**Oral antibiotics**

The following classifications need an oral antibiotic.

For ***sick young infants*** age 1 week up to 2 months:

■ LOCAL BACTERIAL INFECTION

■ DYSENTERY

For ***sick children*** age 2 months up to 5 years:

* ■ SEVERE PNEUMONIA OR VERY SEVERE DISEASE
* ■ PNEUMONIA
* ■ SEVERE DEHYDRATION with cholera in the area
* ■ DYSENTERY
* ■ VERY SEVERE FEBRILE DISEASE
* ■ SEVERE COMPLICATED MEASLES
* ■ MASTOIDITIS
* ■ ACUTE EAR INFECTION

**Paracetamol for high fever (>38.5** °**C) or ear pain**

**Vitamin A** to a child with MEASLES or SEVERE MALNUTRITION

**Iron-** child with some palmar pallor may have anaemia. A child with anaemia needs iron.

Give syrup to the child under 12 months of age. If the child is 12 months or older, give iron tablets

**Mebendazole** -Give 500 mg mebendazole as a single dose in the clinic. Give either one 500 mg tablet or five 100 mg tablets. If hookworm or whipworm is a problem in your area, an anaemic child who is 2 years of age or older, needs mebendazole. These infections contribute to anaemia because of iron loss through intestinal bleeding.

**Treatment of local infections**

**Treatments for young infants (age 1 week up to 2 months)**

There are three types of local infections in a young infant that a mother or caretaker can treat at home**: an umbilicus, which is red or draining pus, skin pustules, or thrush**. These local infections are treated with gentian violet in the same way that mouth ulcers are treated in an older infant or young child.

**Treatments for children (age 2 months up to 5 years)**

If the child is not being referred, and if the child has eye infection, ear infection, mouth ulcers, cough or sore throat, follow the instructions in **Chapter 27** and teach the child’s mother or caretaker to treat the infection at home. Instructions are given to:

■ treat eye infection with tetracycline eye ointment

■ dry the ear by wicking

■ treat mouth ulcers with gentian violet

■ soothe the throat and relieve the cough with a safe remedy

**Extra fluid in diarrhea**

**Plan A: Treat diarrhoea at home**

Treat a child who has diarrhoea and NO DEHYDRATION with Plan A. The 3 Rules of Home Treatment are:

1. GIVE EXTRA FLUID (as much as the child will take)

2. CONTINUE FEEDING

3. WHEN TO RETURN

**Up to 2 years 50 to 100 ml after each loose stool**

**2 years or more 100 to 200 ml after each loose stool**

Tell the mother to:

■ Give frequent small sips from a cup or spoon. Use a spoon to give fluid to a young child.

■ If the child vomits, wait 10 minutes before giving more fluid. Then resume giving the fluid, but more slowly.

■ Continue giving extra fluid until the diarrhoea stops.

**WHEN TO RETURN**

Tell the mother of any sick child that the signs to return are:

■ Not able to drink or breastfeed

■ Becomes sicker

■ Develops a fever

If the child has diarrhoea, also tell the mother to return if the child has:

■ Blood in stool

■ Drinking poorly

**Plan B: Treat some dehydration with ORS-**

an initial treatment period of 4 hours in the clinic

Another way to estimate the amount of ORS solution needed (in ml) - Multiply the child’s weight (in kilograms) by 75.

After 4 hours of treatment on Plan B, reassess the child

***Note****: Reassess the child before 4 hours if the child is not taking the ORS solution or seems to be*

*getting worse.*

**Plan C: Treat severe dehydration quickly**

Severely dehydrated children need to have water and salts quickly replaced. Intravenous (IV) fluids are usually used for this purpose. Rehydration therapy using IV fluids or using a nasogastric (NG) tube is recommended *only* for children who have SEVERE DEHYDRATION

**Immunizations**

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

If a child has diarrhoea and needs OPV, give it to the child. Do ***not*** record the dose on the immunization record. Tell the mother to return in 4 weeks for an extra dose of OPV.

When the child returns for the repeat dose, consider it to be the one that was due at the time of the diarrhoea. Record the date when the repeat dose is given on the immunization card and in your clinic’s immunization register

**What to tell the mother or caretaker**

Tell the mother ***which immunizations her child will receive today***.

Tell her about ***the possible side effects***. Below is a brief description of side effects from each vaccine.

■ **BCG**: A small red tender swelling then an ulcer appears at the place of the immunization after about 2 weeks. The ulcer heals by itself and leaves a small scar.

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

■ **OPV**: No side effects.

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

Tell the mother that if the child feels very hot or is in pain, she should give paracetamol.

She should ***not*** wrap the child up in more clothes than usual.

■ **Measles**: Fever and a mild measles rash are possible side effects of the measles vaccine. A week after you give the vaccine, a child may have a fever for 1–3 days. Fever means that the vaccine is working.

Tell the mother to give paracetamol if the fever is high.

Tell the mother ***when to bring the child back*** for the next immunizations.

**Improving Positioning and Attachment**

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

Good positioning is recognized by the following signs:

— Infant’s neck is straight or bent slightly back,

— Infant’s body is turned towards the mother,

— Infant’s body is close to the mother, and

— Infant’s whole body is supported.

Poor positioning is recognized by any of the following signs:

— Infant’s neck is twisted or bent forward,

— Infant’s body is turned away from mother,

— Infant’s body is not close to mother, or

— Only the infant’s head and neck are supported

The advantages of breastfeeding are described below:

***Breastmilk contains exactly the nutrients needed by an infant***. It contains:

Protein, Fat, Lactose (a special milk sugar), Vitamins A , C and Iron

***These nutrients are more easily absorbed from breastmilk*** than from other milk.

Breastmilk also contains essential fatty acids needed for the infant’s growing brain, eyes, and blood vessels. These fatty acids are not available in other milks.

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

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

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

***Breastfeeding protects a mother’s health***. After delivery, breastfeeding helps the uterus return to its previous size. This helps reduce bleeding and prevent anaemia.

Breastfeeding also reduces the mother’s risk of ovarian cancer and breast cancer.

***It is best not to give an infant any milk or food other than breastmilk***. For example, do not give cow’s milk, goat’s milk, formula, cereal, or extra drinks such as teas, juices, or water.

Reasons:

— Giving other food or fluid reduces the amount of breastmilk taken.

— Other food or fluid may contain germs from water or on feeding bottles or utensils.

These germs can cause infection.

— Other food or fluid may be too dilute, so that the infant becomes malnourished.

— Other food or fluid may not contain enough Vitamin A.

— Iron is poorly absorbed from cow’s and goat’s milk.

— The infant may develop allergies.

— The infant may have difficulty digesting animal milk, so that the milk causes diarrhoea, rashes, or other symptoms. Diarrhoea may become persistent.

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

**When to return immediatey**

Breastfeeding or drinking poorly

Becomes sicker

Develops a fever

Fast breathing

Difficult breathing

Blood in stool

**Follow-up visits infants**  are recommended for young infants who are classified as LOCAL BACTERIAL INFECTION, DYSENTERY, FEEDING PROBLEM OR LOW WEIGHT (including thrush).

ALSO; more than two months

**Follow up after 2 days**

* PNEUMONIA
* DYSENTERY
* MALARIA, if fever persists
* FEVER—MALARIA UNLIKELY, if fever persists
* MEASLES WITH EYE OR MOUTH COMPLICATIONS

**Follow after 5 days**

* PERSISTENT DIARRHOEA
* ACUTE EAR INFECTION
* CHRONIC EAR INFECTION
* FEEDING PROBLEM
* ANY OTHER ILLNESS, if not improving

**Follow up after 14 days**

* PALOR

**Follow up after 30 days**

* VERY LOW WEIGHT FOR AGE