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Acknowledgements

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Thank you all for the commendable efforts in making the updating of these guidelines possible. There is no doubt that by implementing IMNCI, we shall accelerate the reduction of child mortality using scalable, high impact and affordable interventions.

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Child deaths in Kenya remain unacceptably high with 52 out of 1,000 children born dying every year. Unfortunately, 70% of these deaths are attributed to preventable and treatable childhood illnesses such as diarrhoea, pneumonia (acute respiratory infections), malnutrition & anaemia, malaria, measles, HIV and tuberculosis. Additionally, a significant proportion of deaths in children under-five occur in the neonatal period due to infections such as sepsis, complications of pregnancy and childbirth such as birth asphyxia prematurity low birth weight and other congenital anomalies.

The Integrated Management of Newborn & Childhood Illnesses (IMNCI) strategy for delivering interventions that prevent and treat common causes of mortality in children was first introduced in the mid 1990s by WHO/UNICEF as part of Child Survival Strategy. IMNCI has demonstrated improved efficiency and quality of child health services. It recognizes that sick children often present more than one symptom at the same time. These symptoms contribute to many childhood deaths if not comprehensively assessed, classified and treated. As a result, all sick children should be managed using an integrated approach in order to tackle the major drivers of child mortality and thereby save lives.

The IMNCI strategy incorporates standard case management guidelines meant to improve skills of health care workers, as well as approaches for improving family and community health practices that ensure child survival, growth and development.

IMNCI calls for better integration of child health programming across different ministries and sectors at the national and county level. As such its implementation requires continuous strengthening of a number of elements of child health programs in planning and policy development, financing, health systems strengthening, skilled human resources at all levels of care, health promotion and community-based care.

Importantly, IMNCI guidelines remain responsive to current research and recommendations; hence it is an important tool for health care professionals. The information is presented in a simplified manner using the IMNCI 6 major steps namely; assessment, classification, identification of treatment, treating the sick child or young infant, counseling the mother and providing follow up care.

Through the dissemination of IMNCI 2018 updated guidelines, it is envisaged that the technical information herein will provide impetus towards county level implementation and compliance at all levels of care in Kenya.

Dr. Kioko Jackson K., MBS
DIRECTOR OF MEDICAL SERVICES
Ministry of Health
Background
In Kenya, 52 out of every 1000 children born do not live to be five years of age (KDHS 2014). Of note, 70% of all deaths in children can be attributed to easily preventable and treatable diseases namely: Acute respiratory infections (mostly pneumonia), Diarrhoea, Measles, Malaria, Malnutrition & Anaemia, HIV and Tuberculosis. Often children succumb to a combination of these conditions - with most children presenting in health facilities with the combined signs and symptoms of more than one of these diseases. Evidence for various assessments has shown that many of these children are not comprehensively assessed, treated and given the appropriate advice. Recognizing the need to improve on the care of these children, WHO and UNICEF developed the Integrated Management of Newborn and Childhood Illnesses (IMNCI) strategy which emphasizes on integrated case management of the most common childhood diseases. Kenya in the year 2000 adopted the IMNCI strategy which forms a critical part of the Kenya Essential Package for Health (KEPH).

What is IMNCI?
The Integrated Management of Newborn and Childhood Illnesses (IMNCI) case management approach offers simple and effective methods to comprehensively prevent and manage the leading causes of serious illnesses and mortality in children below five years. With IMNCI, sick children or young infants are not only treated for the signs and symptoms they present within a health facility, but are also assessed for the other disease conditions they may be suffering from.

IMNCI is based on the following principles:
• All sick children aged up to 5 years are examined for general danger signs and all young infants are examined for signs of very severe disease. These signs indicate the need for immediate referral or admission to hospital.
• Children and infants are then assessed for main symptoms. For the older children, the symptoms include cough, difficulty breathing, diarrhoea, fever, TB, HIV, ear infections, anaemia, measles and malnutrition.
• A combination of individual signs then lead to the child’s or young infant’s classification within one or more symptom groups.
• Essential drugs are then used to treat the children or young infants. Lastly counseling of caregivers regarding home care, appropriate feeding and fluids and when to return to facility - immediately or follow-up, is done.

IMNCI 6 major steps
1. Assessment
2. Classification
3. Identify Treatment
4. Treat the child or young infant
5. Counsel the Mother
6. Follow Up Care

Where can IMNCI be applied?
The IMNCI approach is designed for use in clinical settings at all levels of health care in Kenya where children under 5 years are managed. These are dispensaries, health centres, sub-county hospitals, county hospitals and national referral hospitals including, faith based and private health facilities.

What is the IMNCI Chart booklet?
Kenya’s IMNCI guidelines are packaged in this chart booklet. The chart booklet provides a simplified step-by-step guide to a healthcare worker on case management of children below 5 years of age visiting health facilities. The chart booklet summarizes and describes the 6 step IMNCI process illustrated above.

Benefits of Using the IMNCI Approach
By using the IMNCI chart booklet and implementing the guidelines the health workers will be able to implement on the key elements of IMNCI:

Assessment
The assess column in the chart booklet describes how to take history and do a physical exam.
• Routinely assess for general danger signs (or possible bacterial infection in a young infant) - a general danger sign indicates that a child has a serious and life threatening condition that requires urgent attention
• Assess for common illnesses in children or young infant’s by asking questions about common conditions, examining the child or young infant and checking the need for other routine services such as immunization and nutrition.
• Look for other health problems.

Classification
The classify (signs and classify) column of the chart lists clinical signs of illnesses and their classification. “Classify” in the chart means the health worker has to make a decision on the severity of the illness. Healthcare workers will be able to classify children or young infants illnesses using the colour-coded triage system. The classifications contained in the booklet are based on whether the diagnosed illness are:

<table>
<thead>
<tr>
<th>Colour</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink</td>
<td>Severe classification needing admission or pre-referral treatment and referral</td>
</tr>
<tr>
<td>Yellow</td>
<td>A classification needing specific medical treatment and advice</td>
</tr>
<tr>
<td>Green</td>
<td>Not serious and in most cases no drugs are needed. Simple advice on home management given</td>
</tr>
</tbody>
</table>

Identify Treatment
The identify treatment column helps the healthcare workers to quickly and accurately identify treatments for the classifications selected. If a child or young infant has more than one classification, the healthcare worker must look at more than one table to find the appropriate treatments.

Treat
The treat column shows how to administer the treatment identified for the classifications. Treat means giving the treatment in the facility, prescribing drugs or other treatments to be given at home and also teaching the mother/carer how to administer treatment at home.

The following rules should be adhered to.
• If a child or young infant requires admission or referral (pink classification), it is important the essential treatment is offered to the child or young infant before admission or referral.
• If the child or young infant requires specific treatment (yellow classification), develop a treatment plan, administer drugs to be given at the facility and advise on treatment at home and counsel the mother/carer accordingly.
• If no serious conditions have been found (green classification), advise the mother/carer on care of child at home.

Counsel
If follow up care is indicated, teach the mother/carer when to return to the clinic. Also teach the mother/carer how to recognize signs indicating that the child or young infant should be brought back to the facility immediately.

Follow up
Some children or young infants need to be seen more than once for a current episode of illness. Identify such children or young infants and when they are brought back, offer appropriate follow up care as indicated in the IMNCI guidelines and also reassess the child or young infant for any new problems.

The guidelines also aim to empower healthcare workers to:
• Correctly interview caregivers.
• Provide counseling for appropriate preventative and treatment measures.
• Correctly counsel the mother about her own health.

Who can apply the IMNCI approach?
The IMNCI process can be applied to any healthcare worker working in settings where children or young infants below five years are managed. These should include: Doctors, Clinical Officers and Nurses.

What should you do when you receive the IMNCI chart booklet at your facility?
The Ministry of Health has distributed the IMNCI chart booklet to all health facilities in Kenya. Upon receiving a copy at your facility, all health workers should familiarize themselves with the guidelines and begin immediate implementation/use. NB: the hard copy of the chart booklet should remain at the health facility at all times.
• A mobile application of the IMNCI guidelines has been developed by the Ministry of Health (MOH) and is available for free to all healthcare workers. For instructions on how to download, please visit www.health.go.ke or contact the Newborn Child and Adolescent Health Unit (NCAHU) at the MOH.
ASSESS AND CLASSIFY THE SICK CHILD
(AGE 2 MONTHS UP TO 5 YEARS)

ASSESS

ASK THE MOTHER WHAT THE CHILD’S PROBLEMS ARE

- Determine if this is an initial or follow-up visit for this problem.
  - If follow-up visit, use the follow-up instructions on TREAT THE CHILD chart.
  - If initial visit, assess the child as follows:

CHECK FOR GENERAL DANGER SIGNS

ASK:
• Is the child able to drink or breastfeed?
• Does the child vomit everything?
• Has the child had convulsions in this illness?

LOOK:
• See if the child is lethargic or unconscious.
• Is the child convulsing now? (If yes treat immediately. (see pg.16)

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:
Does the child have cough or difficult breathing?

IF YES, ASK
For how long?

CHILD MUST BE CALM
Classify COUGH or DIFFICULT BREATHING

LOOK, LISTEN, FEEL
• Count the breaths in one minute. Use respiratory rate timers where available.
• Look for chest in-drawing*
• Look and listen for stridor**
• Look and listen for wheeze***
• Check for central cyanosis
• Check for oxygen saturation using pulse oximetry where available.
  • Check AVPU****
  • If wheezing with either chest in-drawing or fast breathing. Assess for possible Asthma (see pg.17)
  • If wheezing assess for possible TB disease

Процесс: 2 months up to 12 months
12 months up to 5 years
Fast breathing is:
50 breaths per minute or more
40 breaths per minute or more

NO SIGNS OF PNEUMONIA
or very severe disease.

NO PNEUMONIA: COUGH OR COLD

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

Table: 1

IDENTIFY TREATMENT

Signs

Classify as

Very
Severe
Disease

Any general danger sign.

Give diazepam if convulsing now (see pg 16)

Quickly complete the assessment

Give any pre-referral treatment immediately

Treat to prevent low blood sugar (see pg 17)

Keep the child warm.

Refer URGENTLY.

Screen for possible TB disease and check for HIV.

Severe Pneumonia
Or Very Severe Disease

If oxygen saturation is less than 90%, start oxygen therapy and refer or admit.

Give first dose of Benzyl Penicillin & Gentamicin (see pg 16)

Treat for and to prevent low blood sugar. (see pg 17)

Keep the child warm.

Treat wheeze if present, admit or refer urgently to hospital. (see pg 17).

Screen for possible TB disease and check for HIV.

Any general danger sign or
• Oxygen saturation less than 90%
• Stridor in calm child
• Central Cyanosis
• AVPU = V, P or U

Choking in calm child

Pneumonia

Give Amoxicillin Dispersible Tablet. (see pg 13)

Give Vitamin A. (see pg 14)

Treat wheeze if present (see pg 17).

If wheezing, follow-up in 2 days. (see pg 22)

Soothe the throat and relieve the cough with a safe remedy.

Screen for possible TB disease and check for HIV.

Review in 2 days, if not possible, admit OR refer children with chest indrawing. (see pg 22)

Advise mother when to return immediately.

No signs of pneumonia or very severe disease.

Table: 1
If the child has diarrhoea:

**Notes:** Remember to classify all children with diarrhoea for dehydration.

### ASSESS

**Does the child have diarrhoea?**

**IF YES, ASK:**
- **For how long?**
  - Look at the child’s general conditions. Check:
    - Weak/absent pulse
    - Not alert: AVPU < A
    - Cold hands + Temp gradient
    - Capillary refill > 3 sec
  - Is the child:
    - Lethargic or unconscious?
    - Restless and irritable?
    - Look for sunken eyes
    - Offer the child fluid, is the child:
      - Not able to drink or drinking poorly?
      - Drinking eagerly, thirstily?
    - Pinch the skin of the abdomen. Does it go back:
      - Very slowly (longer than 2 seconds)?
      - Slowly?
      - Immediately?

### IDENTIFY

**DIARRHOEA**

**CLASSIFY**

<table>
<thead>
<tr>
<th>All four of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak/absent pulse</td>
</tr>
<tr>
<td>AVPU &lt; A</td>
</tr>
<tr>
<td>Cold hands + Temp gradient</td>
</tr>
<tr>
<td>Capillary refill &gt; 3 sec</td>
</tr>
</tbody>
</table>

**PLUS**

- Sunken eyes and very slow/slow skin pinch.

**HYPOTONIC SHOCK FROM DIARRHOEA/DEHYDRATION**

- TREAT FOR SHOCK. Give Ringer’s Lactate 20mL/kg (see pg 19)
- A second bolus may be given if required before proceeding to step 2 of PLAN C (see pg 19)
- Treat for and to prevent low blood sugar (see pg 17)
- Assess for severe acute malnutrition (see pg 8)
- Assess for severe anemia (see pg 8)
- NB: If HB<5g/dl transfuse urgently
- Admit or refer urgently to hospital
- Screen for possible TB disease and check for HIV.

**SEVERE DEHYDRATION**

If child also has another severe classification:
- Admit or refer URGENTLY to hospital with mother giving frequent sips of ORS on the way. Advise the mother to continue breast feeding. Assess for severe acute malnutrition. Assess for severe anemia. OR
- If child has no other severe classification:
  - If acute malnutrition present (see pg 19).
  - Give fluid for severe dehydration. (Plan C) (See pg 19)
  - Give vitamin A (See pg 14)
  - Give ORS and Zinc Sulphate (See pg 14 and 18)
- If child is 2 years or older and there is cholera in your area, give Erythromycin for cholera. (See pg 13).
- Screen for possible TB disease and check for HIV.

**SOME DEHYDRATION**

If child also has a severe classification:
- Admit or refer URGENTLY to hospital with mother giving frequent sips of ORS on the way. Advise the mother to continue breast feeding. OR
- If the child has no severe classification:
  - Give fluid and food for some dehydration (Plan B) (See pg 18)
  - Give vitamin A (See pg 14)
  - Give ORS and Zinc Sulphate (See pg 14 and 18)
- Follow-up in 2 days if not improving (See pg 32)
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

**NO DEHYDRATION**

If child also has a severe classification:
- Admit or refer URGENTLY to hospital with mother giving frequent sips of ORS on the way. Advise the mother to continue breast feeding. OR
- If the child has no severe classification:
  - Give fluid and food to treat diarrhoea at home (Plan A) (See pg 18)
  - Give vitamin A (See pg 14)
  - Give ORS and Zinc Sulphate (See pg 14 and 18)
- Follow-up in 5 days if not improving.
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

**DEHYDRATION present:**

(hypovolaemic shock, severe dehydration, some dehydration).

**SEVERE PERSISTENT DIARRHOEA**

- Treat hypovolaemic shock and any other form of dehydration before referral unless the child has another severe classification.
- Give Vitamin A. (See pg 14)
- Give ORS and Zinc Sulphate (See pg 14 and 18)
- Give Multivitamin / Mineral supplements (See pg 19)
- Admit or refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.
- Screen for possible TB disease and check for HIV.

**No dehydration.**

**PERSISTENT DIARRHOEA**

- Advise the mother on feeding a child who has
  - Persistent diarrhoea. (see pg 30)
  - Give vitamin A (See pg 14)
  - Give ORS and Zinc Sulphate (See pg 14 & 18)
  - Give Multivitamin / Mineral supplements (See pg 19)
  - Check for HIV infection. (See pg 9)
  - Follow-up in 5 days (see pg 22)
  - Screen for possible TB disease and check for HIV.

**Blood in the stool.**

**DYSENTERY**

- Treat with Ciproflaxacin (See pg 13)
- Give Vitamin A. (See pg 14)
- Give ORS and Zinc Sulphate (See pg 14 and 18)
- Follow-up in 2 days (see pg 22)
- Screen for possible TB disease and check for HIV.

**NB:** If referral is not possible, manage the child as described in Integrated Management of Childhood and Basic Paediatric Protocols.

AVPU - Alert, responsive to Voice, responsive to Pain, Unresponsive. This is a basic assessment of consciousness.

**TABLE : 2**
**Does the child have fever?**

(by history or feels hot or temperature 37.5°C* or above)

### CLASSIFY FEVER: HIGH OR LOW MALARIA RISK

#### IF YES:
- Has the child travelled to a high risk (Malaria endemic, seasonal transmission or epidemic prone) area in the last 1 month?
- Decide Malaria Risk: high or low risk.

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

#### HIGH MALARIA RISK:
- Do a malaria test
  - Endemic Zone
  - Seasonal Transmission Zone
  - Epidemic prone areas

#### LOW MALARIA RISK:
- Do a malaria test if no obvious cause of fever

#### NOTE: If you can’t test, don’t withhold treatment

#### LOOK AND FEEL:
- Look or feel for stiff neck.
- Look for signs of MEASLES:
  - Generalized rash and one of these: cough, runny nose, or red eyes.
  - Look for any other cause of fever**

#### TEST POSITIVE
- P.falciparum PRESENT
- P.vivax PRESENT

#### TEST NEGATIVE
- P.falciparum or P.vivax absent

#### Malaria test POSITIVE**

#### UNCOMPLI-CATED MALARIA
- Give Artemether + Lufenantrine (AL) (see pg 16)
- Give Vitamin A (see pg 14)
- Follow up in 3 days if fever persists (see pg 23)
- If fever is present every day > 7 days assess further or refer
- Screen for possible TB disease and check for HIV
- Advise when to return immediately.

#### Malaria test NEGATIVE

#### FEVER: NO MALARIA
- Give one dose of paracetamol in clinic for high fever (≥38.5 °C) (see pg 14)
- Give Vitamin A (see pg 14)
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

#### MEASLES

- Generalized rash of measles and:
  - One of: cough, runny nose or red eyes.

#### SUSPECTED MEASLES
- Give Vitamin A (See page 14)
- Notify, take blood sample for confirmation
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

- Any general danger sign or:
  - Clouding of cornea or
  - Deep or extensive mouth ulcers.

#### SEVERE COMPLICATIONS OF MEASLES
- Give Vitamin A (see pg 14)
- Give first dose of Ceftriaxone Antibiotic (See page 16)
- If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment. (See page 15)
- Notify, take blood sample for confirmation or refer
- Admit or refer URGENTLY to hospital
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

- Pus draining from the eye or:
  - Mouth ulcers.

#### EYE OR MOUTH COMPLICATIONS OF MEASLES****
- Give Vitamin A (See page 14)
- If pus draining from the eye, treat eye infection with tetracycline eye ointment. (See page 15)
- If mouth ulcers, treat with nystatin (see pg 15)
- Follow up in 2 days (see pg 23)
- If child has no indication for referral, notify and draw blood sample for confirmation of measles
- Screen for possible TB disease and check for HIV

- No pus draining from the eye or mouth ulcers.

#### NO EYE OR MOUTH COMPLICATIONS OF MEASLES
- Give Vitamin A if not received in the last 1 month (see pg 14)
- If child has no indication for referral, draw blood and send for confirmation
- Screen for possible TB disease immediately after the measles infection and check for HIV

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*T These temperatures are based on axillary temperature. Rectal temperature readings are approximately 0.5°C higher.

** If no malaria test available. High risk classify as MALARIA. Low malaria risk AND NO obvious cause of fever—classify as MALARIA.

*** Look for local tenderness, refusal to use a limb, hot tender swelling, red tender skin or boils, lower abdominal pain or pain on passing urine.

**** Other important complications of measles - pneumonia, arthritis, diarrhea, ear infection, and malnutrition - are classified in other tables.
### Does the child have an ear problem?

**IF YES:**
- 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 EAR PROBLEM**

- **MASTOIDITIS**
  - Tender swelling behind the ear.
  - Give first dose of Ceftriaxone Antibiotic. (See pg 16)
  - Give first dose of paracetamol for pain (see pg 14)
  - Refer URGENTLY to hospital or admit
  - Check for HIV.

- **ACUTE EAR INFECTION**
  - Pus is seen draining from the ear or discharge is reported for less than 14 days, or ear pain.
  - Give Amoxicillin dispersible tablet for 5 days. (See pg 13)
  - Give paracetamol for pain (see page 14)
  - Dry the ear by wicking (See pg 15)
  - Check for HIV infection
  - Follow-up in 5 days (see pg 23)

- **CHRONIC EAR INFECTION**
  - Pus is seen draining from the ear or discharge is reported for 14 days or more.
  - Dry the ear by wicking (See pg 15)
  - Check for HIV infection
  - Follow-up in 5 days (see pg 23)

- **NO EAR INFECTION**
  - No ear pain and no pus seen or reported draining from the ear.
  - No treatment.
## Asses the Sick Child Age 2 Months up to 5 Years

### Classify Acute Malnutrition and Anaemia

**Check for Acute Malnutrition and Anaemia**

**Ask:** Is there history of TB contact?

**Look and Feel:**
- Look for oedema of both feet.
- Determine the child’s weight for height/length (WFH/L) and plot on the IMCI Chart booklet (see pages 55 & 56) to determine the z-score.
- Determine the growth pattern; is the growth faltering? (Weight curve is flattening or dropping for at least 2 consecutive months?)
- Measure MUAC**mm in a child 6 months or older.

**If WFH/L less than -3 z-scores or MUAC less than 115mm then:**

- Conduct appetite test. (see pg 25)
- Child is 6 months or older, offer RUTF to eat (see pg 25)
- Child is >Not able to finish RUTF portion
- Child is <6 months, assess breast feeding (see pg 43)
  - If child has acute Malnutrition and is receiving RUTF, DO NOT give iron because there is already adequate amount of IRON in RUTF.

**Check for Anaemia**

**Look and Feel:**
- Look for palmar pallor. Is it:
  - Severe palmar pallor?
  - Some palmar pallor?
  - No palmar pallor?
- Do haemoglobin level (HB) test.
- Assess for sickle cell anaemia if common in your area.

**Check for Acute Malnutrition and Anaemia**

<table>
<thead>
<tr>
<th>Classify Nutritional Status</th>
<th>Identify Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe Acute Malnutrition</strong></td>
<td>Treat child to prevent low blood sugar (see pg 17)</td>
</tr>
<tr>
<td>- Weight For Height or Length (WFH/L)</td>
<td>Keep the child warm</td>
</tr>
<tr>
<td>- MUAC less than 11.5 cm and ANY one of the following: medical complication present or not able to finish RUTF* or Breast feeding problem (&lt;6 months)</td>
<td>Give first dose of Benzyl Penicillin + Gentamicin (see pg 13)</td>
</tr>
<tr>
<td>- Able to finish RUTF</td>
<td>Give Vitamin A (see pg 14)</td>
</tr>
<tr>
<td></td>
<td>Refer URGENTLY to hospital</td>
</tr>
<tr>
<td></td>
<td>Admit or refer urgently to hospital if child has any other complications (Danger signs: Diarrhoea, Pneumonia, Fever, No appetite, etc)</td>
</tr>
<tr>
<td></td>
<td>Immunize as per schedule (see pg 12)</td>
</tr>
<tr>
<td></td>
<td>Screen for possible TB disease and check for HIV (see pg 13)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Severe Malnutrition With Complications for Children</th>
<th>SEVERE ACUTE MALNUTRITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WFH/L &lt; -3 z scores OR MUAC Less than 11.5 cm AND Able to finish RUTF</td>
<td>Give oral Amoxicillin DT for 5 days</td>
</tr>
<tr>
<td>WFH/L &gt; -3 to &lt;-2 z scores OR MUAC 11.5 to 12.4 cm</td>
<td>Give ready to use therapeutic food for child aged six months and above</td>
</tr>
<tr>
<td>WFH/L = -2 to &lt;-1 Z- Score</td>
<td>Screen for possible TB disease and check for HIV</td>
</tr>
<tr>
<td>If age 6 months up to 59 months MUAC 12.5 to 13.5 cm</td>
<td>Follow up in 7 days (see pg 24)</td>
</tr>
<tr>
<td>At Risk of Acute Malnutrition</td>
<td>Assess the child’s feeding and counsel the mother on the feeding recommendations (see pg 25 &amp; 27)</td>
</tr>
<tr>
<td>*Severe palmar pallor</td>
<td>Immunize as per schedule (see pg 12)</td>
</tr>
<tr>
<td>If child is less than 2 years of age and has growth faltering, assess the child’s feeding and counsel the mother on feeding according to the feeding recommendations</td>
<td>Advise mother when to return immediately.</td>
</tr>
<tr>
<td><strong>Moderate Acute Malnutrition</strong></td>
<td>Give Albendazole if child is 1 year or older and has not had a dose in the previous 6 months (See pg 12)</td>
</tr>
<tr>
<td>WFH/L = -2 to &lt;-1 Z- Score</td>
<td>If feeding problems, follow up in 14 days (see pg 24)</td>
</tr>
<tr>
<td>If age 6 months up to 59 months MUAC 12.5 to 13.5 cm</td>
<td>Screen for possible TB disease and check for HIV</td>
</tr>
<tr>
<td>No Acute Malnutrition</td>
<td>Immunize as per schedule (see pg 12)</td>
</tr>
<tr>
<td></td>
<td>Advise mother when to return immediately.</td>
</tr>
<tr>
<td></td>
<td>Check for possible TB disease and check for HIV</td>
</tr>
</tbody>
</table>

**Classify Anaemia**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe Anaemia</strong></td>
<td>Treat to prevent low blood sugar (see pg 17)</td>
</tr>
<tr>
<td>- Severe palmar pallor</td>
<td>Keep the child warm</td>
</tr>
<tr>
<td>- If HB≤5g/dL</td>
<td>Admit or refer URGENTLY to hospital</td>
</tr>
<tr>
<td></td>
<td>Screen for possible TB disease and check for HIV.</td>
</tr>
<tr>
<td><strong>Anaemia</strong></td>
<td>Assess the child’s feeding and counsel the mother on feeding according to the feeding recommendations (see pg 25 &amp; 27)</td>
</tr>
<tr>
<td>- Some palmar pallor</td>
<td>If growth is faltering for 2 consecutive months, assess further or refer to hospital</td>
</tr>
<tr>
<td>- Give Iron and Folate. (See pg 14)</td>
<td>Give vitamin A (See pg 14)</td>
</tr>
<tr>
<td></td>
<td>Give Albendazole if child is 1 year or older and has not had a dose in the last 6 months (See pg 12)</td>
</tr>
<tr>
<td></td>
<td>Screen for TB disease and check for HIV</td>
</tr>
<tr>
<td></td>
<td>Follow up in 14 days</td>
</tr>
<tr>
<td></td>
<td>Immunize as per schedule (see pg 12)</td>
</tr>
<tr>
<td></td>
<td>Screen for possible TB disease and check for HIV</td>
</tr>
<tr>
<td><strong>No Anaemia</strong></td>
<td>If child is less than 2 years old, assess the child’s feeding and counsel the mother on feeding according to the feeding recommendations (see pg 25 &amp; 27)</td>
</tr>
<tr>
<td>- No Palmar pallor</td>
<td>If feeding problems, follow up in 5 days (see pg 24)</td>
</tr>
<tr>
<td></td>
<td>Give Albendazole if child is 1 year or older and has not had a dose in the last 6 months (see pg 12)</td>
</tr>
<tr>
<td></td>
<td>Screen for possible TB disease and check for HIV</td>
</tr>
</tbody>
</table>

**Table 5**

WFH/L is Weight-for-Height or Weight-for-Length determined by using the WHO growth standards charts.

**MUAC** is Mid-Upper-Arm-circumference measured using MUAC tape in all children 6 months or older.

**RUTF** is Ready-to-use Therapeutic Food for conducting the appetite test and feeding children with severe acute malnutrition.

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INTEGRATED MANAGEMENT OF NEWBORN AND CHILDHOOD ILLNESSES
ASSESS AND CLASSIFY THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

CHECK FOR HIV EXPOSURE AND INFECTION

ASK
- Ask for mother’s HIV status to establish child’s HIV exposure* Is it: Positive, Negative or Unknown (to establish child’s HIV exposure)
- Ask if child has had any TB Contact

LOOK, FEEL AND DIAGNOSE:

Child <18 months
- If mother is HIV positive**, conduct DNA PCR for the baby at 6 weeks or at first contact with the child
- If mother’s HIV status is unknown, conduct an antibody test (rapid test) on mother to determine HIV exposure.

Child ≥18 months
- If mother’s antibody test is POSITIVE, the child is exposed. Conduct an antibody test on the child.

Child whose mother is NOT available:
- Child < 18 months
  Do an antibody test on the child. If positive, do a DNA PCR test.
- Child ≥ 18 months
  Do an antibody test to determine the HIV status of the child
- NB: See Early Infant Diagnosis (EID) algorithm on pg 60

CLASSIFY HIV STATUS

Child <18 months
- If mother test is positive and child’s DNA PCR test is negative

Child ≥ 18 months
- If mother is unavailable, child’s antibody test is positive and DNA PCR is negative

CONFIRMED HIV INFECTION

• Child < 18 months and DNA PCR test POSITIVE
• Child ≥ 18 months and Antibody test POSITIVE

HIV EXPOSED

- Child<18 months
  • If mother test is positive and child’s DNA PCR is negative
  • OR
  • If mother is unavailable; child’s antibody test is positive and DNA PCR is negative

HIV NEGATIVE

- Mother’s HIV status is NEGATIVE
- OR
- Mother’s HIV status is POSITIVE and child is ≥ 18 months with antibody test NEGATIVE 6 weeks after completion of breast feeding

IDENTIFY TREATMENT

- Initiate ART, counsel and follow up existing infections
- Initiate or continue cotrimoxazole prophylaxis (see page 20)
- Assess child’s feeding and provide appropriate counseling to the mother/caregiver (see pg 25 and 26)
- Offer routine follow up for growth, nutrition and development and HIV services
- Educate caregivers on adherence and its importance
- Screen for possible TB disease at every visit.
- For those who do not have TB disease, start Isoniazid prophylactic therapy (IPT).
- Screen for possible TB throughout IPT
- Immunize for measles at 6 months and 9 months and boost at 18 months (see pg 12)
- Follow up monthly as per the national ART guidelines and offer comprehensive management of HIV. Refer to appropriate national ART guidelines for comprehensive HIV care of the child (see pg 24)

- Manage presenting conditions according to IMNCI and other recommended national guidelines
- Advise the mother about feeding and about her own health

* Refer to Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infections in Kenya available at http://www.nascop.or.ke, ARVs dosing charts, infant and young child feeding guidelines
** All HIV positive mothers should be initiated on ARVs and linked to psychosocial support. Refer 2016 PMTCT guidelines.
ASSESS AND CLASSIFY THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

## ASSESS

### CHECK FOR CHILD’S DEVELOPMENTAL MILESTONES

<table>
<thead>
<tr>
<th>0-2 MONTHS</th>
<th>2-4 MONTHS</th>
<th>4-6 MONTHS</th>
<th>6-9 MONTHS</th>
<th>9-12 MONTHS</th>
<th>12 - 18 MONTHS</th>
<th>18 - 24 MONTHS</th>
<th>24 MONTHS AND OLDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Social smile (baby smiles back)</td>
<td>• Holds the head upright</td>
<td>• Roll over</td>
<td>• Sits without support</td>
<td>• Takes steps with support</td>
<td>• Walks without support</td>
<td>• Kicks a ball</td>
<td>• Jumps</td>
</tr>
<tr>
<td>• Baby follows a colourful object dangled before their eyes</td>
<td>• Follows the object or face with their eyes</td>
<td>• Reaches for and grasps objects with hand</td>
<td>• Moves object from one hand to the other</td>
<td>• Picks up small object or string with 2 fingers</td>
<td>• Drinks from a cup</td>
<td>• Builds tower with 3 blocks or small boxes</td>
<td>• Undresses and dresses themselves</td>
</tr>
<tr>
<td>• Absence of one or more milestones from current age group</td>
<td>• Absence of one or more milestones from earlier age group</td>
<td>• Absence of one or more milestones from current age group</td>
<td>• Moves object from one hand to the other</td>
<td>• Says 2-3 words</td>
<td>• Points to some body parts on request</td>
<td>• Points at pictures on request</td>
<td>• Says first name, tells short story</td>
</tr>
<tr>
<td>• Regression of milestones</td>
<td>• Regression of milestones</td>
<td>• All milestones for the current age group are present</td>
<td>• Repeats syllables (bababa, mamama)</td>
<td>• Imitates simple gestures (claps hands, bye)</td>
<td>• Speaks in short sentences</td>
<td>• Speaks in short sentences</td>
<td>• Interested in playing with other children</td>
</tr>
</tbody>
</table>

## CLASSIFY

### DEVELOPMENTAL MILESTONE/S

<table>
<thead>
<tr>
<th>Absence of one or more milestones from current age group AND/or Absence of one or more milestones from earlier age group</th>
<th>Regression of milestones</th>
<th>Counsel the caregiver appropriately</th>
<th>Refer for psychomotor evaluation</th>
<th>Screen for mothers health needs and risk factors (see pg 12) and other possible causes including Malnutrition, TB disease and hyperthyroidism</th>
</tr>
</thead>
</table>

### DEVELOPMENTAL MILESTONE/S ALERT

<table>
<thead>
<tr>
<th>Absence of one or more milestones from current age group</th>
<th>Praise caregiver on milestones achieved</th>
<th>Counsel caregiver on play &amp; communication activities to do at home (refer to Care for Child Development card page 28)</th>
<th>Advise to return for follow up in 30 days (see pg 31)</th>
<th>Screen for possible TB disease and other causes</th>
</tr>
</thead>
</table>

### DEVELOPMENTAL MILESTONE/S NORMAL

<table>
<thead>
<tr>
<th>All milestones for the current age group are present</th>
<th>Praise caregiver on milestones achieved</th>
<th>Encourage caregiver to give more challenging activities for the next age group (refer to Care for Child Development card page 28)</th>
<th>Advise to continue with follow up consultations</th>
</tr>
</thead>
</table>

## IDENTIFY TREATMENT

### TABLE : 7

### INTEGRATED MANAGEMENT OF NEWBORN AND CHILDHOOD ILLNESSES
**ASSESS FOR INTERACTION, COMMUNICATION AND RESPONSIVENESS**

ASK
- How do you play with your child? (Ask the caregiver to demonstrate)
- How do you talk with your child? (Ask the caregiver to demonstrate)
- How do you get your child to smile? (Ask the caregiver to demonstrate)
- What makes you think your child is learning? (Ask for 6 months and older)

LOOK, LISTEN
(Health care provider looks and listens as the caregiver plays and communicates with the child.)
- Is the caregiver aware of child’s movements?
- Does the caregiver play with child?
- Does the caregiver talk to child?
- Does the caregiver smile with the child?

**CLASSIFY**

**POOR INTERACTION AND / OR COMMUNICATION AND RESPONSIVENESS**

**GENERAL SIGNS FOR ALL CHILDREN**
- Does not move/play with the child, or controls child’s movements
- Is not able to comfort child, and child does not look to caregiver for comfort
- Scolds the child

**AGE < 6 MONTHS**
- Does not play with baby
- Does not talk to baby
- Tries to force smile or is not responsive to baby

**AGE: 6 MONTHS & OLDER**
- Does not talk, or talks harshly to child
- Says child is slow to learn

**GOOD INTERACTION AND / OR COMMUNICATION AND RESPONSIVENESS**

**GENERAL SIGNS FOR ALL CHILDREN**
- Caregiver moves towards the child, talks to or makes sounds with child
- Caregiver tries to force smile or is not responsive to child
- Caregiver looks into child’s eyes while talking softly to them, gently touches child or holds them closely.
- Caregiver distracts child from unwanted actions with appropriate toys.

**AGE < 6 MONTHS**
- Moves the baby’s arms and legs while gently stroking the baby.
- Gets baby’s attention with shaker or other ways.
- Looks into baby’s eyes while talking softly to baby
- Responds to baby’s sounds and gestures to get baby to smile

**AGE: 6 MONTHS & OLDER**
- Plays word games or with toys
- Looks into child’s eyes and talks softly to child
- Draws smile out from the child
- Says the child is learning well

**FOR ALL CHILDREN:**
- Ask caregiver to copy child’s movements and to follow child’s lead
- Help caregiver look into child’s eyes while gently talking and holding child
- Help caregiver distract child from unwanted actions by giving alternative toys or activities

**AGE < 6 MONTHS**
- Discuss ways in which to help baby see, hear, feel and move appropriate for their age
- Ask the caregiver to look into baby’s eyes while talking to the baby
- Ask caregiver to make large gestures and cooing sounds and/or copy baby’s sounds and gestures, and see baby’s response

**AGE: 6 MONTHS & OLDER**
- Ask caregiver to do play or communication activity, appropriate for age
- Help caregiver interpret what child is doing and thinking, while observing child’s response and smile
- Counsel the caregiver on appropriate activity to do together with the child (see page 28)
- Encourage more activity with the child, check hearing and seeing.
- Refer child with difficulties

(See the counsel the mother card on recommendation for care for Child’s Development pg 28.)

Follow up in 14 days (see page 31)

**IDENTIFY TREATMENT**
## ASSESS AND CLASSIFY THE SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

### CHECK THE CHILD’S IMMUNIZATION, VITAMIN A & DEWORMING STATUS

#### IMMUNIZATION

<table>
<thead>
<tr>
<th>Age</th>
<th>BCG</th>
<th>Polio Vaccine</th>
<th>IPV</th>
<th>Diphtheria/ Pertussis/ Tetanus/Hepatitis B/ Haemophilus Influenzae type B (Pentavalent)</th>
<th>Pneumococcal PCV10</th>
<th>Rota Virus (ROTARIX)</th>
<th>Measles</th>
<th>Yellow Fever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>BCG*</td>
<td>bOPV 0 (birth –2wks)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 weeks</td>
<td>bOPV 1</td>
<td>Pentavalent 1</td>
<td>PCV10 1</td>
<td>ROTA 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 weeks</td>
<td>bOPV 2</td>
<td>Pentavalent 2</td>
<td>PCV10 2</td>
<td>ROTA 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 weeks</td>
<td>bOPV 3</td>
<td>IPV1</td>
<td>Pentavalent 3</td>
<td>PCV 10 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measles, rubella**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measles, rubella**</td>
<td>Yellow Fever***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Measles, rubella**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Do not give BCG to a child with symptomatic HIV/AIDS. In child exposed to TB disease at birth, do not give BCG. Instead give child Isoniazid Prophylaxis for 6 months then administer BCG 2 weeks after completion of IPT.

**Measles Rubella vaccine at 6 months for HIV exposed/infected children. Repeat at 6 months and 18 months.

***Yellow fever should not be given to children with HIV/AIDS and is only offered in the following counties: Baringo and Elgeyo Marakwet in Rift Valley region.

#### ASSESS THE MOTHER’S / CAREGIVER’S HEALTH NEEDS

- Nutritional status and anaemia, contraception
- Screen for cancer eg: breast and cervical
- Check the mother's psychosocial support needs
- Check hygienic practices
- Check/assess mental status and SGBV (Sexual Gender Based Violence)

#### VITAMIN A & DEWORMING

<table>
<thead>
<tr>
<th>Age</th>
<th>Vitamin A</th>
<th>De-worming</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>12 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>18 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>24 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>30 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>36 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>42 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>48 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>54 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
<tr>
<td>60 months</td>
<td>Vitamin A</td>
<td>Deworming</td>
</tr>
</tbody>
</table>

#### ASSESS FOR OTHER PROBLEMS THAT THE CHILD MAY HAVE

- **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.

**Give Albendazole**

- Give Albendazole 200mg as a single dose for children 1 to 2 years and 400mg if child is 2 years or older.
TEACH THE MOTHER/CAREGIVER TO GIVE ORAL DRUGS AT HOME

Follow the instructions below for every oral drug to be given at home.
Also follow the instructions listed with each drug’s dosage table.

» Determine the appropriate drugs and dosage for the child’s age or weight.
» Tell the mother/caregiver the reason for giving the drug to the child.
» Demonstrate how to measure a dose.
» Watch the mother/caregiver practice measuring a dose by themselves.
» Ask the mother/caregiver to give the first dose to their child.
» Explain carefully how to give the drug, then label and package the drug.
» If more than one drug will be given, collect, count and package each drug separately.
» Explain that all the oral drug tablets or syrups must be used to finish the course of treatment, even if the child gets better.
» Check the mother’s/caregiver’s understanding before they leave the clinic.

Give Metronidazole
if a child with dysentery has not improved on Ciprofloxacin by the second day, add Metronidazole

Give an Appropriate Oral Antibiotic
FOR PNEUMONIA OR ACUTE EAR INFECTION:
FIRST - LINE ANTIBIOTIC: AMOXICILLIN DISPERSIBLE TABLET
SECOND-LINE ANTIBIOTIC: BENZYL PENICILLIN (CRYSTALLINE PENICILLIN) & GENTAMICIN

| TABLE : 13 |
|---|---|---|---|
| weight (kg) | High dose Amoxicillin for Non-severe pneumonia & severe infections 40-45mg/kg/dose | Amoxicillin12hry (for mild infections) 25mg/kg/dose | Flucloxacillin 15mg/kg/dose | Ciprofloxacin 15mg/kg/dose (for 3 days) | Metronidazole 7.5mg/kg/dose |
| | 12 hry | 8 hry | 12 hry | 8 hry |
| | Syrup | Disp. | mls | 125mg/5ml | 250mg | 250mg | 250mg | 250mg | 200mg |
| 3.0 | 5mils | 2.5 | 1/2 tab | 4 | 1/4 | 2.5 | 1/4 | 1/4 |
| 4.0 | 7.5mils | 3.75 | | 4 | 2.5 | 1/4 | 1/4 | 1/4 |
| 5.0 | 10mils | 5 | 6 | 1/2 | 5 | 1/4 | 1/4 | 1/4 |
| 6.0 | 10mils | 5 | 6 | 1/2 | 5 | 1/4 | 1/4 | 1/4 |
| 7.0 | 7.5 | 8 | 3/4 | 5 | 1/2 | 1/2 | 1/2 |
| 8.0 | 7.5 | 8 | 3/4 | 5 | 1/2 | 1/2 | 1/2 |
| 9.0 | 7.5 | 8 | 3/4 | 5 | 1/2 | 1/2 | 1/2 |
| 10.0 | 10 | 12 | 1 | 5 | 1 | 1/2 | 1/2 |
| 11.0 | 10 | 12 | 1 | 10 | 1 | 1/2 | 1/2 |
| 12.0 | 10 | 12 | 1 | 10 | 1 | 1/2 | 1/2 |
| 13.0 | 12.5 | 12 | 1 | 10 | 1 | 1/2 | 1/2 |
| 14.0 | 12.5 | 12 | 1 | 10 | 1 | 1/2 | 1/2 |
| 15.0 | 12.5 | 12 | 1 | 10 | 1 | 1/2 | 1/2 |
| 16.0 | 15 | 1 | 10 | 1 | 1 | 1 |
| 17.0 | 15 | 1 | 10 | 1 | 1 | 1 |
| 18.0 | 15 | 1 | 10 | 1 | 1 | 1 |
| 19.0 | 15 | 1 | 10 | 1 | 1 | 1 |
| 20.0 | 15 | 2 | 10 | 1 | 1 | 1 |

Note: Discard any unused Amoxicillin Dispersible Tablet once the blister pack is opened.

FIRST LINE FOR CHOLERA:- ERYTHROMYCIN. SECOND LINE FOR CHOLERA: - CEFTRIAXONE

| TABLE : 14 |
|---|---|---|
| AGE or WEIGHT | TABLET (200mg) | SYRUP (200 mg/5 ml) |
| 12-24 months (10-12 kg) | 1/2 | 2.5 ml |
| 24 -36 months (12-14kg) | 3/4 | 3.75 ml |
| 36-59 months (14-19kg) | 1 | 5 ml |

FIRST LINE ANTIBIOTIC FOR DYSENTERY: CIPROFLOXACIN

| TABLE : 12 |
|---|---|
| AGE or WEIGHT | TABLET 250 mg |
| 2 months up to 4 months (4 - 6 kg) | 1/4 |
| 4 months up to 12 months (6 - 10 kg) | 1/2 |
| 12 months up to 5 years (10 - 19 kg) | 1 |

ERYTHROMYCIN (30-50mg/kg) Give four times daily for 3 days

| AGE or WEIGHT | TABLET 250 mg | SYRUP 125 mg/5ml |
| 2 months up to 4 months (4 - <6 kg) | 1/4 | 2.5ml |
| 4 months up to 12 months (6 - <10 kg) | 1/2 | 5.0ml |
| 12 months up to 5 years (10 - 19 kg) | 1 | 10ml |
### TREAT THE CHILD

**TREATMENT FOR UNCOMPLICATED MALARIA**

**Give an Oral Antimalarial**

**FIRST-LINE ANTIMALARIAL:** ARTEMETHER + LUMEFANTRINE (AL)  
**SECOND-LINE ANTIMALARIAL:** DIHYDROARTEMISININ-PIPERAQUINE (DHA-PPQ)

<table>
<thead>
<tr>
<th>AGE or WEIGHT</th>
<th>ARTEMETHER + LUMEFANTRINE TABLETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT</td>
<td>Age in years</td>
</tr>
<tr>
<td>Below 15Kg</td>
<td>Below 3 years</td>
</tr>
<tr>
<td>15 - 24Kg</td>
<td>3-7 years</td>
</tr>
<tr>
<td></td>
<td>Dose of AL to be administered at 0hrs, 8hrs, 24 hrs, 36hrs, 48hrs and 60hrs.</td>
</tr>
<tr>
<td></td>
<td>20mg Artemether and 120mg Lumefantrine</td>
</tr>
<tr>
<td></td>
<td>40mg Artemether and 240mg Lumefantrine</td>
</tr>
</tbody>
</table>

In child below 5kg, if appropriate weight for age, evaluation of other causes of fever including malaria should be undertaken. Where malaria is confirmed, the current recommended treatment is one tablet of AL given according to the schedule in table 15 under close supervision.

**COUNSEL THE MOTHER OR CAREGIVER ON MANAGEMENT OF MALARIA FOR A SICK CHILD:**

- Show all caregivers of young children how to prepare the dispersible tablet prior to administration. Ensure she/he understands how to administer the same to the child prior to leaving the facility.
- If vomiting occurs within 30 minutes after drug administration, the dose should be repeated. And if vomiting persists, the patient should return to the facility for review.
- Explain the dosing schedule, use probing questions to confirm the patient’s understanding.
- Emphasize that all 6 doses must be taken over 3 days even if the patient feels better after a few doses. Follow up after 3 days of treatment.
- Advise patients to return immediately to the nearest health facility if the condition deteriorates at any time or if symptoms have not resolved after 3 days.

**SECONDLINE: DIHYDROARTEMISININ 20MG + PIPERAQUINE 160MG**

<table>
<thead>
<tr>
<th>AGE or WEIGHT</th>
<th>Dihydroartemisinin + piperazine dose (mg) given daily for 3 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Weight</td>
<td></td>
</tr>
<tr>
<td>(Kg)</td>
<td></td>
</tr>
<tr>
<td>5 to &lt; 8</td>
<td>20 + 160</td>
</tr>
<tr>
<td>8 to &lt;11</td>
<td>30 + 240</td>
</tr>
<tr>
<td>11 to &lt; 17</td>
<td>40 + 320</td>
</tr>
</tbody>
</table>

**Give Vitamin A**

- Give two doses for treatment of Measles. Give first dose in clinic and give mother another dose to give at home the next day.
- Give one dose for other disease conditions if the child has not had a dose in the previous one month.
- Give one dose as per Vitamin A schedule for prevention (see pg 8).

To give Vitamin A, cut open the capsule and give drops.

<table>
<thead>
<tr>
<th>AGE</th>
<th>VITAMIN A CAPSULES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200 000 IU</td>
</tr>
<tr>
<td>Up to 6 months</td>
<td>100 000 IU</td>
</tr>
<tr>
<td>6 months up to 12 months</td>
<td>1 capsule</td>
</tr>
<tr>
<td>12 months up to 5 years</td>
<td>2 capsules</td>
</tr>
</tbody>
</table>

**Give Iron and folate**

- Give one dose at 6 mg/Kg of iron daily for 14 days.
- Give one dose in a child known to suffer from Sickle Cell Anaemia.
- Avoid folate until 2 weeks after child has completed the dose of sulfa based drugs.

<table>
<thead>
<tr>
<th>AGE or WEIGHT</th>
<th>IRON/FOLATE TABLET</th>
<th>IRON TABLET</th>
<th>FOLIC ACID TABLET</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 up to 4 months (4 - 6 kg)</td>
<td>200 mg + 250 mcg Folate</td>
<td>1/4</td>
<td>1/2</td>
</tr>
<tr>
<td>4 up to 12 months (6 - 10 kg)</td>
<td>200 mg</td>
<td>1/4</td>
<td>1</td>
</tr>
<tr>
<td>12 months up to 3 years (10 - 14 kg)</td>
<td>1/2 tablet</td>
<td>1/2</td>
<td>1</td>
</tr>
<tr>
<td>3 years up to 5 years (14 - 19 kg)</td>
<td>1/2 tablet</td>
<td>1/2</td>
<td>1</td>
</tr>
</tbody>
</table>

**Give Zinc Sulphate**

For a child with diarrhoea:

<table>
<thead>
<tr>
<th>AGE</th>
<th>Zinc Sulphate Give once daily for 10 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 months up to 6 months</td>
<td>DISPERABLE Tablet (20 mg )</td>
</tr>
<tr>
<td>6 months up to 5 years</td>
<td>1</td>
</tr>
</tbody>
</table>

*Dispose the other half tablet of Zinc Sulphate 20mg

**Give Paracetamol for Fever or Ear Pain**

Give paracetamol every 6 hours until fever or ear pain is gone (3 days for fever and 5 days for ear pain)

<table>
<thead>
<tr>
<th>AGE or WEIGHT</th>
<th>PARACETAMOL (10-15mg/kg body weight 6 to 8 hourly)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TABLE (100 mg)</td>
<td>TABLET (500 mg)</td>
</tr>
<tr>
<td>2 months up to 3 years (4 - &lt;14kg)</td>
<td>1</td>
</tr>
<tr>
<td>3 years up to 5 years (14 - &lt;19kg)</td>
<td>1½</td>
</tr>
</tbody>
</table>
TEACH THE MOTHER/CAREGIVER TO TREAT LOCAL INFECTIONS AT HOME

- Explain to the mother/caregiver what the treatment is and why it should be given.
- Describe the treatment steps listed in the appropriate box.
- Watch the mother/caregiver as they give the first treatment in the clinic (except remedy for cough or sore throat).
- Tell them how often to give the treatment at home.
- If needed for treatment at home, give mother/caregiver the tube of tetracycline eye ointment or a small bottle of gentian violet.
- Check the mother's/caregiver's understanding before they leave the clinic.

---

Dry the Ear by Wicking

- Dry the ear at least 3 times daily.
  - Roll clean absorbent cloth or soft, strong tissue paper into a wick.
  - Place the wick in the child’s ear.
  - Remove the wick when wet.
  - Replace the wick with a clean one and repeat these steps until the ear is dry.
  - Tell the mother/caregiver not to place anything in the ear between wicking treatments.
  - Do not allow the child to go swimming or get any water in their ear.

---

Treat Mouth Ulcers with Gentian Violet

- Treat the mouth ulcers twice daily.
  - Wash hands.
  - Clean the child’s mouth with clean soft cloth wrapped around the finger and wet with salt and water.
  - Paint the mouth with half-strength gentian violet.
  - Wash hands again.

---

Treat for Thrush with Nystatin

- Clean the mouth with clean soft cloth wrapped around the finger and wet with salt and water.
- Instill Nystatin 1 ml 4 times a day.
- If breast-fed advise mother to wash her breasts after feeds and apply the same medicine on the areola.
- If severe recurrent or pharyngeal thrush refer for HIV testing.

---

Soothe the Throat, Relieve the Cough with a Safe Remedy

- Safe remedies to recommend:
  - Breast milk for exclusively breast-fed infant.
  - Warm water with Lemon tea, tea and honey (children > 6 months).
- Harmful remedies to discourage:
  - Codeine and ephedrine containing cough mixtures.
TREAT THE CHILD

GIVE THESE TREATMENTS IN HEALTH FACILITY ONLY

TREATMENT OF VERY SEVERE DISEASE:
• Explain to the mother/carer why the drug is given
• Use the appropriate dose for the child weight (or age)
• Give a sterile needle and sterile syringe. Measure the dose accurately
• Give the drug as an intravenous/intramuscular injection

Give an intravenous/ intramuscular antibiotic FOR CHILDREN BEING REFERRED URGENTLY
• Give first dose of Ceftriaxone and REFER IMMEDIATELY

WHERE REFERRAL IS NOT POSSIBLE OR DELAYED, CONTINUE WITH TREATMENT AS FOLLOWS:
• Treat to prevent hypoglycemia.
• Continue CEFTRIAXONE FOR 10 DAYS.
• Give vitamin A.

QUININE FOR SEVERE MALARIA
For IV infusion typically 5% or 10% dextrose is used.
• Use at least 1ml fluid for each 1mg of quinine to be given
• Do NOT infuse quinine at a rate of more than 5mg/kg/hour
• Use 5% Dextrose or normal saline for infusion with 1ml of fluid for each 1mg of quinine.
• The 20mg/kg loading dose therefore take 4 hours or longer
• The 10mg/kg maintenance dose therefore takes 2 hours or longer

For IM Quinine
• Take 1ml of the 2mls in a 600mg Quinine sulphate IV viral and add 5mls water for injection- this makes a 50mg/ml solution
• For a loading dose this will means giving 0.4mls/kg
• For the maintenance dosing this will mean giving 0.2mls/kg
• If you need to give more than 3mls (a child over 8kg for a 10mg/kg dose) then give the dose into two IM sites- do not give more than 3mls per injection site.

ARTEMETHER FOR SEVERE MALARIA
First line treatment for severe malaria: ARTESUNATE
Artesunate typically comes as a powder together with a 1ml vial of 5% bicarbonate that then needs to be further diluted with either normal saline or 5% dextrose- the amount to use depends on whether the drug is to be given IV or OM (see table below)
• Do NOT use water for injection to prepare artesunate for injection
• Do NOT give artesunate if the solution in the syringe is cloudy
• Do NOT give artesunate as a slow IV drip (infusion)
• You MUST use artesunate within 1 hour after it is prepared for injection

<table>
<thead>
<tr>
<th>Artesunate powder (mg)</th>
<th>60mg</th>
<th>60mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate (mls, 5%)</td>
<td>1ml</td>
<td>1ml</td>
</tr>
<tr>
<td>Normal Saline or 5% Dextrose (mls)</td>
<td>5mls</td>
<td>2mls</td>
</tr>
<tr>
<td>Artesunate concentration (mg/ml)</td>
<td>10mg/ml</td>
<td>20mg/ml</td>
</tr>
</tbody>
</table>

ARTEMESININ combination therapy (ACT) typically the 1st line oral anti-malarial, Arteether Lumarfinanine.

QUININE TREATMENT does

Weight (%)

<table>
<thead>
<tr>
<th>Artesunate, 3mg/kg</th>
<th>3mg/kg</th>
<th>3mg/kg</th>
<th>3mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arteether</td>
<td>0.9</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Lumefantrine</td>
<td>0.45</td>
<td>0.45</td>
<td>0.45</td>
</tr>
</tbody>
</table>

**For oral Quinine 200 mg Quinine Sulphate - 200 mg Quinine Hydrochloride or Dihydrochloride but = 300 mg Quinine Bilsulphate. The table of doses below is ONLY correct for a 200 mg Quinine Sulphate tablet.
**TREAT THE CHILD**

**Treat the Child for Low Blood Sugar**

- If the child is able to breastfeed:
  Ask the mother to breastfeed the child.

- If the child is not able to breastfeed but is able to swallow:
  Give expressed breast milk or a breast milk substitute.
  If neither of these is available, give sugar water.
  Give 30-50 ml of milk or sugar water before departure.

  To make sugar water: Dissolve 4 level teaspoons of sugar (20 grams) in a 200 ml cup of clean water.

- If the child is not able to swallow:
  Give 20-50 ml of milk or sugar water by nasogastric tube.

- For Suspected low blood sugar*:
  Give 10% glucose** 5 ml/kg by nasogastric tube OR
  Give same amount slowly intravenously if a line is available.
  Keep warm.
  Admit or refer urgently to hospital.

**RAPID ACTING BRONCHODILATOR**

| Salbutamol inhaler in a spacer (volume: 750 –1000 ml ) | 2 puffs repeated 5 times in 30 minutes |
| Subcutaneous epinephrine (adrenaline) (1:1000=0.1 %) | 0.01 ml per kg body weight |

Nebulized salbutamol 5 mg /ml.

- Under 1 year: 0.5 ml salbutamol in 2.0 ml sterile water.
- 1 year and above: 1.0 ml salbutamol in 2.0 ml sterile water

*Low blood sugar (hypoglycemia) may be suspected in any infant or child who is convulsing or has loss of consciousness for which there is no obvious cause; has a rectal temperature of below 35.5°C, is drowsy or sweating, is lethargic, floppy or jittery— particularly when less than 2 months old.

**To constitute 10% glucose from 50% glucose: Mix 1 part of 50% glucose with 4 parts of water for injection.

**Treat For Possible Asthma**

**Wheeze + History of cough or difficulty breathing. (Likelihood of asthma much higher if age >12m and recurrent wheeze)**

**Severe Asthma if child has any one of these**

- Oxygen saturation <90%
- Central cyanosis
- Inability to drink / breastfeed
- AVPUI = "V" , "P" or "U" or
- Inability talk/ complete sentences
- Pulse rate >200 bpm (0-3yrs) and >180 bpm (4-5yrs)

**Immediate Management**

Oxygen

**ADMIT**

Nebulize 2.5 mg salbutamol or 6 puffs of inhaler with spacer and mask give every 20 minutes up to 3 doses if needed Prednisolone 2 mg/kg*

Consider intraprotin bromide 250 mcg If poor response**

Antibiotics as for severe pneumonia

**Mild or Moderate Asthma**

**Wheeze PLUS**

Lower chest wall indrawing OR fast breathing (RR ≥ 50 age 2 - 11 months RR ≥40 aged 12-59 months)

**Monitor closely for 1-2 hours**

If mild symptoms allow home on salbutamol MDI give 2 puffs every 6 hours. Counsel caregiver on signs of deterioration and schedule review within 48 hours

If lack of response to salbutamol, increasing respiratory rate, worsening saturation, any signs of severe asthma. Refer to immediate Management above.

**Recurrence of asthma symptoms consider inhaled corticosteroid (ICS) therapy or adjust the doses if already on ICS. (Look out for other comorbidities)**

**Demonstrate MDI and spacer use to the caregiver before discharge from the health facility. Preferably use spacer with face masks for <3 years for 4-5 years use facemask or mouthpiece.**

**If child has unilateral wheeze and not responding to bronchodilators, TB disease is likely and should be evaluated**

**Advise on regular follow up.**

**Prednisolone administered for 3-5 days. Max dose of 20mg/day for <2 years and 30mg/day for 2-6yrs.**

**Repeat every 20 minutes for one hour if needed.**
REHYDRATION THERAPY & FEEDING FOR DIARRHOEA

(See FOOD advise on COUNSEL THE MOTHER chart) PLAN A, B, C excludes children with acute malnutrition.

Plan A: Treat diarrhoea with no dehydration
Counsel the mother/caregiver on the 4 Rules of Home Treatment:
Give Extra Fluids, Give Zinc Sulphate, Continue Feeding, Advise when to Return

1. GIVE EXTRA FLUID (Give ORS and other Fluids-as much as the child will take)
   • ADVISE THE MOTHER:
     - Breastfeed frequently and for longer at each feed.
     - If the child is exclusively breast-fed, give ORS in addition to breast milk.
     - If the child is not exclusively breast-fed, give one or more of the following: ORS solution, food-based fluids (such as soup, enriched uji, and yoghurt drinks e.g. Mala), or safe water.
     - Give fresh fruit juice or mashed bananas to provide potassium.
     - Advise mothers/caregivers to continue giving ORS as instructed.
   • TEACH THE MOTHER/CAREGIVER HOW TO MIX AND GIVE ORS. GIVE THE MOTHER/CAREGIVER 4 PACKETS OF ORS TO USE AT HOME.
   • SHOW THE MOTHER /CAREGIVER HOW MUCH FLUID TO GIVE IN ADDITION TO THE USUAL FLUID INTAKE:
     Up to 2 years  50 to 100 ml after each loose stool
     2 years or more  100 to 200 ml after each loose stool
   • Advise the mother/caregiver to:
     - Give frequent small sips from a cup.
     - If the child vomits, wait 10 minutes. Then continue, but more slowly.
     - Continue giving extra fluids until the diarrhoea stops.

2. GIVE ZINC SULPHATE & VITAMIN A
   • TELL THE MOTHER/CAREGIVER HOW MUCH ZINC SULPHATE TO GIVE:
     - Up to 6 months 1/2 tablet per day for 10 days
     - 6 months or more, 1 tablet per day for 10 days
   • SHOW THE MOTHER HOW TO GIVE ZINC SULPHATE:
     - Infants: dissolve the tablet in a small amount of expressed breast milk, ORS or safe water, in a small cup or spoon.
     - Older children: tablets can be chewed or dissolved in small amounts of ORS or safe water.

REMINDD THE MOTHER/CAREGIVER TO GIVE THE ZINC SUPPLEMENTS FOR THE FULL 10 DAYS

3. CONTINUE FEEDING
4. WHEN TO RETURN See COUNSEL THE MOTHER Chart

Plan B: Treat Diarrhoea at Facility with ORS (Some Dehydration)
Give recommended amount of ORS over 4-hour period in clinic.

1. DETERMINE AMOUNT OF ORS TO GIVE DURING FIRST 4 HOURS.
   • The approximate amount of ORS required (in ml) should be calculated by multiplying the child’s weight (in kg) with 75.
   • Use the child’s age only when you do not know the weight.
   • If the child wants more ORS than shown, give more.
   • For infants under 6 months who are not breast-fed, also give 100-200 ml clean water during this period.

2. SHOW THE MOTHER/CAREGIVER HOW TO GIVE ORS SOLUTION.
   • Give frequent small sips from a cup (or a spoon every 1-2 minutes for a child under 2 years).
   • Check from time to time to see if there are any problems. If the child vomits, wait 10 minutes then continue, but more slowly.
   • Continue breast feeding whenever the child wants.
   • If the child’s eyelids become puffy, stop ORS and give plain water or breast milk.
   • Give ORS according to plan A when the puffiness is gone.

3. AFTER 4 HOURS:
   • Reassess the child and classify the child for dehydration.
   • Select the appropriate plan to continue treatment.
   • Begin feeding the child in the clinic.

4. IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT:
   • Show her how to prepare ORS solution at home.
   • Show her how much ORS to give to finish 4-hour treatment at home.
   • Give her enough ORS sachets to complete rehydration under this plan. Also give her 4 ORS sachets to continue with Plan A. Explain the 4 Rules of Home Treatment:

1. GIVE EXTRA FLUID
2. GIVE ZINC SULPHATE & VITAMIN A
3. CONTINUE FEEDING
4. WHEN TO RETURN See Plan A for recommended fluids and Zinc Sulphate and Vitamin A, and See COUNSEL THE MOTHER Chart.
TREAT THE CHILD

REHYDRATION THERAPY

Treat Shock

Plan C: Treat Severe Dehydration Quickly

FOLLOW THE ARROWS. IF ANSWER IS “YES”, GO ACROSS. IF “NO”, GO DOWN.

START HERE

Can you give intravenous (IV) fluid immediately?

YES

NO

Is IV treatment available nearby (within 30 minutes)?

YES

NO

Are you trained to use a naso-gastric (NG) tube?

YES

NO

Can the child drink?

YES

NO

Refer URGENTLY to hospital for IV or NG treatment

Signs persist

Repeat bolus of Ringer’s Lactate (<15 minutes).

Signs not present

Reassess the child

Treat child for severe dehydration - Plan C, STEP 2.

Plan C: Treat Severe Dehydration Quickly

Give 20ml/kg bolus of Ringer’s Lactate (<15 minutes)

Start IV fluid immediately. If the child can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer’s Lactate Solution or if not available use normal saline as follows:

<table>
<thead>
<tr>
<th>AGE</th>
<th>STEP 1 First give 30 ml/kg in:</th>
<th>STEP 2 Then give 70 ml/kg in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (under 12 months)</td>
<td>1 hour*</td>
<td>5 hours</td>
</tr>
<tr>
<td>Children (12 months up to 5 years)</td>
<td>30 minutes*</td>
<td>2 hours 30 minutes</td>
</tr>
</tbody>
</table>

* Repeat once if radial pulse is still very weak or not detectable.
  - Reassess the child every 1-2 hours. If hydration status is not improving, give the IV drip more rapidly.
  - Also give ORS (about 5 ml/kg/hour) as soon as the child can drink: usually after 3-4 hours (infants) or 1-2 hours (children).
  - Reassess an infant after 6 hours and a child after 3 hours. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

- Admit or Refer URGENTLY to hospital for IV treatment. If the child can drink, provide the mother with ORS solution and show her how to give frequent sips during the trip.

- Start rehydration by NG tube (or mouth) with ORS solution: give 20 ml/kg/hour for 6 hours (total of 120 ml/kg). Reassess the child every 1-2 hours:
  - If there is repeated vomiting or increasing abdominal distension, give the fluid more slowly.
  - If hydration status is not improving after 3 hours, send the child for IV therapy.
  - After 6 hours, reassess the child. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

NOTE: If possible, observe the child at least 6 hours after rehydration to be sure the mother can maintain hydration giving the child ORS solution by mouth.

TABLE 26

Give Multivitamin/Mineral supplement for persistent diarrhoea

Give daily for two weeks

<table>
<thead>
<tr>
<th>Age/Weight</th>
<th>Multivitamin/Mineral Syrup</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 months-6 months (4 - 8 kg)</td>
<td>2.5 ml</td>
</tr>
<tr>
<td>6 months-2 years (8 - 12 kg)</td>
<td>5.0 ml</td>
</tr>
<tr>
<td>2 years-5 years (12 - 19 kg)</td>
<td>7.5 ml</td>
</tr>
</tbody>
</table>

Rehydration therapy for diarrhoea in children with acute malnutrition

ONLY rehydrate until the weight deficit (measured or estimated) is corrected and then STOP. Do not give extra fluid to prevent recurrence.

Conscious –Not in shock

Unconscious /IN SHOCK

ReSoMal

- 10ml/kg half hour for the first 2 hours
- 5-10ml/kg hourly, for the next 10-12 hours as tolerated
- If a child cannot take orally, use an NG tube.

Note: Alternate feeding with fluids hourly

INTEGRATED MANAGEMENT OF NEWBORN AND CHILDHOOD ILLNESSES
TREAT THE CHILD
HIV CARE FOR CHILDREN

WHAT TO START: CHILDREN

<table>
<thead>
<tr>
<th>AGE/WEIGHT</th>
<th>REGIMEN</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 weeks</td>
<td>AZT/3TC + NVP</td>
<td>As per 2016 ART guidelines</td>
</tr>
<tr>
<td>&gt;2 weeks - &lt;3 years</td>
<td>ABC/3TC + LPV/r</td>
<td>Once a child attains 25kg switch from LPV/r to ATV/r</td>
</tr>
<tr>
<td>3 years – 14 years</td>
<td>ABC/3TC + EFV</td>
<td>Children with contraindication to EFV can use LPV/r or ATV/r as recommended above</td>
</tr>
<tr>
<td></td>
<td>ABC/3TC + DTG</td>
<td>For children &gt;35kg DTG is preferred instead of EFV</td>
</tr>
<tr>
<td>&gt;15 years</td>
<td>TDF/3TC/DTG</td>
<td>Use FDC for better adherence</td>
</tr>
</tbody>
</table>

ART Treatment in children with TB

<table>
<thead>
<tr>
<th>AGE/WEIGHT</th>
<th>FIRST LINE TB/HIV CO-INFECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 Weeks</td>
<td>Start TB treatment immediately, start ART (Usually after 2 weeks of age) once tolerating TB drugs</td>
</tr>
<tr>
<td>&gt;2 Weeks and &lt;35kgs</td>
<td>ABC/3TC/LPV/RTV</td>
</tr>
<tr>
<td></td>
<td>If not able to tolerate super boosted LPV/RTV then use ABC/3TC + RAL for duration of TB treatment</td>
</tr>
<tr>
<td></td>
<td>After completion of TB treatment revert back to the recommended 1st line regime ABC/3TC +LPV/r</td>
</tr>
<tr>
<td></td>
<td>If on ABC/3TC/EFV regimen – continue</td>
</tr>
<tr>
<td></td>
<td>If on NVP based regimen, change to EFV</td>
</tr>
<tr>
<td>&gt;35 kgs body weight and &lt; 15 years age</td>
<td>ABC/3TC/DTG continue with the regimen AND double the dose for DTG</td>
</tr>
<tr>
<td></td>
<td>If on PI based regimen switch the patients to DTG, hence doubling the dose</td>
</tr>
</tbody>
</table>

DOSAGE OF COTRIMOXAZOLE PROPHYLAXIS

<table>
<thead>
<tr>
<th>WEIGHT (KG)*</th>
<th>SUSPENSION 240MG PER 5ML</th>
<th>SINGLE STRENGTH TABLET 480MG (SS)</th>
<th>DOUBLE STRENGTH TABLET 960MG (DS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>2.5ml</td>
<td>¼ SS tab</td>
<td>-</td>
</tr>
<tr>
<td>5-8</td>
<td>5ml</td>
<td>½ SS tab</td>
<td>¼ DS tab</td>
</tr>
<tr>
<td>9-16</td>
<td>10ml</td>
<td>1 SS tab</td>
<td>½ DS tab</td>
</tr>
<tr>
<td>17-30</td>
<td>15ml</td>
<td>2 SS tab</td>
<td>1 DS</td>
</tr>
<tr>
<td>&gt;30 (Adults and adolescents)</td>
<td>-</td>
<td>2SS</td>
<td>1DS</td>
</tr>
</tbody>
</table>

*Dose by body weight is 24-30 mg/kg once daily of the trimethoprim-sulphamethaxazole – combination drug.

• Oral thrush management– use miconazole gel
• Cotrimoxazole use is still recommended
• Most infants and children initiated on treatment take time before immune recovery occurs
• Children on LPV/r – continue with boosted ritonavir
• RAL – for those unable to tolerate super boosted LPV/r
# PAEDIATRIC ARVs DOSAGES

## Table 3.0

<table>
<thead>
<tr>
<th>WEIGHT RANGE (KG)</th>
<th>FIXED DOSE COMBINATIONS</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABACAVIR + LAMIVUDINE</td>
<td></td>
</tr>
<tr>
<td>TWICE DAILY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 mg ABC +60mg 3TC</td>
<td>60mg ZDV + 30mg 3TC</td>
<td></td>
</tr>
<tr>
<td>3 - 5.9</td>
<td>0.5 tab</td>
<td></td>
</tr>
<tr>
<td>6 - 9.9</td>
<td>1 tab</td>
<td></td>
</tr>
<tr>
<td>10 - 13.9</td>
<td>1 tab</td>
<td></td>
</tr>
<tr>
<td>14 - 19.9</td>
<td>1.5 tabs</td>
<td></td>
</tr>
<tr>
<td>20 - 24.9</td>
<td>2 tabs</td>
<td></td>
</tr>
<tr>
<td>25 - 34.9</td>
<td>300mgs + 150mgs</td>
<td></td>
</tr>
</tbody>
</table>

## Table 3.1

<table>
<thead>
<tr>
<th>FORMULATION</th>
<th>AGE CATEGORY</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid (80/20mg)</td>
<td>2 weeks-9 months of age</td>
<td>Easy to swallow for the infant</td>
</tr>
<tr>
<td>Pellets (40/10mg)</td>
<td>9 months- 4 years of age</td>
<td>Easy to administer as they can take soft food like porridge</td>
</tr>
<tr>
<td>Tablets (100/25mg)</td>
<td>5 years and older children</td>
<td>Able to swallow the whole tablets Pellets are too many for this age</td>
</tr>
</tbody>
</table>

Refer to Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infections in Kenya available at [http://www.nascop.or.ke](http://www.nascop.or.ke)
### GIVE FOLLOW-UP CARE

- Care for the child who returns for follow-up using all the boxes that match the child's previous classifications.
- If the child has any new problem, assess, classify fully and treat as on the ASSESS AND CLASSIFY chart.

### PNEUMONIA

**After 2 days:**
Check the child for general danger signs. Assess the child for cough or difficult breathing.

**Ask:**
- Is the child breathing slower?
- Is there less fever?
- Is the child eating better?

**Treatment:**
- **If any general danger sign,** give a dose of second-line antibiotic, then admit or refer URGENTLY to hospital.
- **If chest indrawing, breathing rate, fever and eating have not improved,** change to the second-line antibiotic and ADMIT or REFER (if this child had measles within the last 3 months or is known or confirmed HIV infection, refer).
- **If breathing slower, less fever, or eating better,** complete the 5 days of antibiotic.

### WHEEZING

**After 2 days:**
Check the child for general danger signs or chest indrawing. Assess the child for cough or difficult breathing.

**Ask:**
- Is the child breathing slower?
- Is the child still wheezing?
- Is the child eating better?

**Child under 1 year:**
- If wheezing and any of the following:
  - General danger sign or stridor in a calm child or chest in-drawing, fast breathing, poor feeding; give intravascular/intramuscular antibiotic. Then admit or refer URGENTLY to hospital.
  - If no wheezing, breathing slower and eating better; continue the treatment for 5 days

**Child over 1 year:**
- If wheezing and any of the following:
  - General danger sign or stridor in a calm child or chest in-drawing, fast breathing, poor feeding; give intravascular/intramuscular antibiotic. Then admit or refer URGENTLY to hospital.
  - If breathing rate and eating have not improved; change to second line antibiotic and ADMIT OR REFER urgently to hospital.
  - If still wheezing; continue oral bronchodilator.
  - If breathing slower, no wheezing and eating better, continue the treatment for 5 days
  - If child has unilateral wheeze and not responding to bronchodilators, TB disease is likely and should be evaluated.

### PERSISTENT DIARRHOEA

**After 5 days:**
- Has the diarrhoea stopped?
- How many loose stools is the child having per day?

**Treatment:**
- If the diarrhoea has not stopped (child is still having 3 or more loose stools per day), do a full reassessment of the child. Give any treatment needed. Then refer to hospital.
- If the diarrhoea has stopped (child having less than 3 loose stools per day), tell the mother to follow the usual feeding recommendations for the child's age, but give one extra meal every day for 1 month. Ask her to continue giving Zinc sulphate for total of 10 days.

### DYSENTERY

**After 2 days:**
Assess the child for diarrhoea. > See ASSESS & CLASSIFY chart (see pg 5)

**Ask:**
- Are there fewer stools?
- Is there less blood in the stool?
- Is there less fever?
- Is there less abdominal pain?
- Is the child eating better?

**Treatment:**
- If the child is dehydrated, treat dehydration according to classification.
- If number of stools, amount of blood in stools, fever, abdominal pain, or eating is worse:
  - Admit or Refer to hospital.
- If the condition is the same: add Metronidazole to the treatment.
  - Give it for 5 days. Advise the mother to continue ciprofloxacin and zinc and to return in 2 days.

**Exceptions - if the child:**
- is less than 12 months old, or
- was dehydrated on the first visit or
- had measles within the last 3 months

- Admit or Refer URGENTLY to hospital.

- If fewer stools, less blood in the stools, less fever, less abdominal pain, and eating better, continue giving Ciprofloxacin and zinc sulphate until finished.
GIVE FOLLOW-UP CARE

- Care for the child who returns for follow-up using all the boxes that match the child’s previous classifications.
- If the child has any new problem, assess, classify fully and treat the new problem as on the ASSESS AND CLASSIFY chart.

**UNCOMPLICATED MALARIA**

If fever persists after 3 days, or recurs within 14 days:

Do a full reassessment of the child. > See ASSESS & CLASSIFY chart. Assess for other causes of fever. (see pg 6)

**Treatment:**

- If the child has any general danger sign or stiff neck, treat as VERY SEVERE FEBRILE DISEASE.
- If the child has any cause of fever other than malaria, provide treatment.
- If malaria is the only apparent cause of fever and confirmed by microscopy: Give oral DIHYDROARTEMISININ-PIPERAQUINE (DHA-PPQ). Give paracetamol. If child is under 5 kg and was given DHA-PPQ assess further.
- Advice mother to return again in 3 days if the fever persists - if fever has been present every day for 7 days, refer for assessment.

**FEVER - NO MALARIA**

If fever persists after 3 days:

Do a full reassessment of the child. > See ASSESS & CLASSIFY chart (see pg 6)

Assess for other causes of fever.

**Treatment:**

- If the child has any general danger sign or stiff neck, treat as VERY SEVERE FEBRILE DISEASE.
- If the child has any cause of fever other than malaria, provide appropriate treatment.
- If malaria is the only apparent cause of fever:
  - Treat with the first-line oral antimalarial. Give paracetamol. Advise the mother to return again in 3 days if the fever persists.
  - If fever has been present every day for 7 days, refer for assessment.
- If child has persistent fever, cough and reduced playfulness despite other treatment, evaluate for TB.

**EYE OR MOUTH COMPLICATIONS OF MEASLES**

After 2 days:

Look for red eyes and pus draining from the eyes.

Look at mouth ulcers.

Smell the mouth.

**Treatment for Eye Infection:**

- If pus is draining from the eye, ask the mother/caregiver to describe how she has treated the eye infection.
- If treatment has been correct, refer to hospital. If treatment has not been correct, teach mother/caregiver correct treatment.
- If the pus is gone but redness remains, continue the treatment.
- If no pus or redness, stop the treatment.

**Treatment for Mouth Ulcers:**

- If mouth ulcers are worse, or there is a very foul smell from the mouth, refer to hospital.
- If mouth ulcers are the same or better, continue using half-strength gentian violet or Nystatin for a total of 5 days.

**Treatment for thrush:**

- If thrush is worse check that treatment is being given correctly.
- If the child has problems with swallowing, refer to hospital.
- If thrush is the same or better, and the child is feeding well, continue Nystatin for a total of 7 days.
- If thrush is no better or is worse consider symptomatic HIV infection.

**EAR INFECTION**

After 5 days:

Reassess for ear problem. > See ASSESS & CLASSIFY chart (see pg 7)

Measure the child’s temperature.

**Treatment:**

- If there is tender swelling behind the ear or high fever (38.5°C or above), admit or refer URGENTLY to hospital.
- Acute ear infection: if ear pain continues or discharge persists, treat with 5 more days of the same antibiotic. Continue wicking to dry the ear. Follow-up in 5 days.
- Chronic ear infection: Check that the mother is wicking the ear correctly. Encourage her to continue. Review in 2 weeks.
- If ear discharge continues for more than 2 months: Admit or refer to hospital.
- If no ear pain or discharge, praise the mother for her careful treatment. If she has not yet finished the 5 days of antibiotic, tell her to use till treatment is completed.
GIVE FOLLOW-UP CARE

- Care for the child who returns for follow-up using all the boxes that match the child’s previous classifications.
- If the child has any new problem, assess, classify fully and treat the new problem as on the ASSESS AND CLASSIFY chart.

FEEDING PROBLEM

After 5 days:
Reassess feeding. See questions at the top of the COUNSEL THE MOTHER (see pg 25 and 27).
Ask about any feeding problems found on the initial visit.
- Counsel the mother/caregiver about any new or continuing feeding problems. If you counsel the mother/caregiver to make significant changes in feeding, ask her to bring the child back again after 5 days.
- If the child is very low weight for age, ask the mother to return 14 days after the initial visit to measure the child’s weight gain.

PALLOR

After 14 days:
- Give iron and folate. Advise mother to return in 14 days for more iron and folate.
- Continue giving iron and folate everyday for 2 months.
- If the child has palmar pallor after 2 months, refer for assessment.

MALNUTRITION

After 14 days:
- If the child is gaining weight, encourage the mother to continue with feeding. Counsel the mother about any feeding problem.

SEVERE MALNUTRITION WITHOUT COMPLICATIONS

After 7 days or during regular follow-up:
- Do a full assessment of the child >See ASSESS AND CLASSIFY chart.
- Assess child with the same measurements (WFH/L, MUAC) as on the initial visit.
- Check for oedema of both feet.
- Check the child’s appetite by offering ready-to-use therapeutic food if the child is 6 months and older.

Treatment
- If the child has SEVERE MALNUTRITION WITH COMPLICATIONS (WFH/L less than -3 z-scores or MUAC is less than 11.5mm or oedema of both feet AND has developed a medical complication or oedema, or fails the appetite test), refer URGENTLY to hospital.
- If the child has SEVERE MALNUTRITION WITHOUT COMPLICATIONS (WFH/L or MUAC) used on the initial visit.

MODERATE ACUTE MALNUTRITION

After 14 days:
- Assess the child using the same measurement (WFH/L or MUAC) used on the initial visit.
- If WFH/L weignt the child, measure height or length and determine if WFH/L:
  - If MUAC, measure using MUAC tape.
  - Check the child for oedema of both feet.
- Reassess feeding. See questions in the COUNSEL THE MOTHER chart.

Treatment
- If the child is no longer classified as MODERATE ACUTE MALNUTRITION, praise the mother and encourage her to continue.
- If the child is still classified as MODERATE ACUTE MALNUTRITION, counsel the mother about any feeding problem found. Ask the mother to return again in 14 days. Continue to see the child every 2 weeks until the child is feeding well and gaining weight regularly or his or her WFH/L is -2 z-scores or more or MUAC is 12.5 or more.
- Assess all children with failure to thrive or growth faltering for possible TB disease.

Exception:
- If you do not think that feeding will improve, or if the child has lost weight or his or her MUAC has diminished, refer the child.

HIV EXPOSED & INFECTED CHILDREN

HIV INFECTED CHILD

After 1 month:
- Assess the child’s general condition. Do a full assessment (see page 4-11)
- Treat the child for any condition found.
- Ask for any feeding problems, counsel the mother about any new or continuing feeding problems.
- Advise the mother/caregiver to bring the child back if any new illness develops or she is worried.
- Counsel the mother/caregiver on any other problems and ensure community support is being given. Refer for further psychosocial counseling if necessary.
- Continue with routine follow-up for growth and development, nutrition, immunization, vitamin A, deworming.
- Assess adherence to ART and Cotrimoxazole and advice accordingly.
- Offer or refer child for comprehensive HIV management and care (including ART) as per the national ART guidelines.
- Plan for default tracking system; identification and tracking of children
- Follow up monthly

HIV EXPOSED CHILD (<18 months): For children tested DNA PCR Negative

After 1 month:
- Assess the child’s general condition. Do a full re-assessment (see page 4-11)
- Ask for any feeding problems or poor appetite, counsel the mother about any new or continuing feeding problems.
- Treat the child for any condition found.
- Give Cotrimoxazole prophylaxis from 6 weeks and emphasize the importance of compliance.
- Start or continue with ARV prophylaxis for a total of 12 weeks.
- Screen for possible TB Disease.
- Continue with routine follow-up for growth and development, nutrition, immunization, vitamin A, deworming.
- Follow-up schedule of HIV Exposed infant monthly up to 24 months.
- Refer to Early Infant Diagnosis (EID) algorithm for confirmation of HIV status (see pg 59)
- Refer to the HIV exposed infant follow-up card and register for further follow-up instructions.

IF ANY MORE FOLLOW-UP VISITS ARE NEEDED BASED ON THE INITIAL VISIT OR THIS VISIT, ADVISE THE MOTHER OF THE NEXT FOLLOW-UP VISIT.

ALSO ADVISE THE MOTHER WHEN TO RETURN IMMEDIATELY.
SEE COUNSEL THE MOTHER PAGE 30.)
COUNSEL THE MOTHER

ASSESS CHILD’S FEEDING
Assess feeding if child is Less Than 2 Years Old, Has MODERATE ACUTE MALNUTRITION, AT RISK OF ACUTE SEVERE MALNUTRITION, ANAEMIA, CONFIRMED HIV INFECTION, or is HIV EXPOSED.

Ask questions about the child’s usual feeding and feeding during this illness. Compare the mother/caregiver’s answers to the Feeding Recommendations for the child’s age. (see pg 28)

ASK - How are you feeding your child?
If the child is receiving any breast milk, ASK:
How many times during the day? _______________
Do you also breastfeed during the night? yes______ no ______
Does the child take any other food or fluids? yes______ no_________
What food or fluids? _______________
How many times per day? _______________
What do you use to feed the child? _______________

If MODERATE ACUTE MALNUTRITION or if a child with CONFIRMED HIV INFECTION fails to gain weight or loses weight between monthly measurements, ASK:
How large are servings?_____________
Does the child receive their own serving? yes______ no_________
Who feeds the child and how?_____________
What foods are available in the home?_____________

During this illness, has the child’s feeding changed? yes______ no_______
If yes, how?____________________
In addition, for HIV EXPOSED child:

If mother and child are on ARV treatment or prophylaxis and child breast feeding, ASK:
Do you take ARV drugs? yes______ no_________
Do you take all doses, miss doses, do not take medication?____________________
Does the child take ARV drugs (if the policy is to take ARV prophylaxis until 1 week after breast feeding has stopped)? yes______ no_________
Does he or she take all doses, missed doses, does not take medication? yes______ no_________

CONDUCT THE APPETITE TEST

• All children aged 6 months or more with SEVERE ACUTE MALNUTRITION (oedema of both feet or WFH/L less than -3 z-score or MUAC less than 11.5 cm) and no medical complication should be assessed for appetite.
• By far the most important criterion to decide if a patient should be sent to in- or out-patient management is the Appetite Test.
• A poor appetite means that the child has a significant infection or a major metabolic abnormality such as liver dysfunction, electrolyte imbalance, cell membrane damage or damaged biochemical pathways. These are the patients at immediate risk of death.

HOW TO DO THE APPETITE TEST?
• The appetite test should be conducted in a separate quiet area.
• Explain to the mother/caregiver the purpose of the appetite test and how it will be carried out.
• The mother/caregiver, where possible, should wash her/his hands.
• The mother/caregiver should sit comfortably with the child on her/his lap and either offer the RUTF from the packet or put a small amount on her/his finger and give it to the child.
• The mother/caregiver should offer the child the RUTF gently, encouraging the child all the time. If the child refuses then the mother/caregiver should continue to quietly encourage the child and take time over the test
• The test usually takes a short time but may take up to one hour. The child must not be forced to take the RUTF.
• The child needs to be offered plenty of water to drink from a cup as he/she is taking the RUTF.

The result of the appetite test
PASS:
• A child that takes at least the amount shown in the table below passes the appetite test.

FAIL:
• A child that does not take at least the amount of RUTF shown in the table below should be referred for in-patient care.
• Even if the caregiver/health worker thinks the child is not taking the RUTF because s/he doesn’t like the taste or is frightened, the child still needs to be referred to in-patient care for at least a short time. If it is later found that the child actually takes sufficient RUTF to pass the test then they can be immediately transferred to the out-patient treatment.

The following table gives the MINIMUM amount of RUTF that should be taken.

Minimum amount of Plumpy’nut / RUTF per kg of body weight required to pass the Appetite Test

<table>
<thead>
<tr>
<th>Body Weight (kg)</th>
<th>Sachets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4 kg</td>
<td>⅛ to ¼</td>
</tr>
<tr>
<td>4 - 6.9</td>
<td>⅓ to ½</td>
</tr>
<tr>
<td>7 - 9.9</td>
<td>⅓ to ½</td>
</tr>
<tr>
<td>10 - 14.9</td>
<td>⅓ to ½</td>
</tr>
<tr>
<td>15 - 29</td>
<td>½ to 1</td>
</tr>
<tr>
<td>Over 30 kg</td>
<td>&gt;1</td>
</tr>
</tbody>
</table>

Important considerations:
• The appetite test should always be performed carefully.
• If there is any doubt or if patients fail their appetite tests admit or refer for in-patient care.
COUNSEL THE MOTHER
About Feeding Problems and Guidance on Infant Feeding in HIV context

If the child is not being fed as described in the above recommendations, counsel the mother accordingly. In addition:

- If the mother reports difficulty with breast feeding, assess breast feeding. (See YOUNG INFANT chart.)
  - As needed, show the mother correct positioning and attachment for breast feeding.

- If the child is less than 6 months old and is taking other milk or foods:
  - Build mother’s confidence that she can produce all the breast milk that the child needs.
  - Suggest giving more frequent, longer breast-feeds day or night, and gradually reducing other milk or foods.

- If other milk needs to be continued, counsel the mother to:
  - Breastfeed as much as possible, including at night.
  - Make sure that other milk is a locally appropriate breast milk substitute.
  - Make sure other milk is correctly and hygienically prepared and given in adequate amounts.
  - Make sure that left over feeds are not fed to the baby.

- If the mother is using a bottle to feed the child:
  - Recommend reinstating breast feeding if possible
  - Recommend substituting a cup for bottle.
  - Show the mother how to feed the child with a cup.
  - Re emphasize hand washing & hygiene.

- If the child is not being fed actively, counsel the mother to:
  - Sit with the child and encourage eating.
  - Give the child an adequate serving in a separate plate or bowl.

- If the child is not feeding well during illness, counsel the mother to:
  - Clear a blocked nose if it interferes with feeding.
  - Breastfeed more frequently and for longer if possible.
  - For the child under 6 months who is not breast-fed, increase the number of milk feeds.
  - For a child already on complementary feeds, give soft, varied, appetizing, enriched favorite foods including milk to encourage the child to eat as much as possible.
  - Offer small frequent feeds.
  - Give snacks between meals and check regularly for oral thrush or ulcers.
  - Expect that appetite will improve as child gets better.

- Follow-up any feeding problem in 5 days.

Guidance on Infant Feeding in HIV Context

- All HIV positive mothers should be given information on the government guidance on breast feeding in the context of HIV and counseled on benefits and challenges of breast feeding

- All HIV positive mothers should be encouraged and supported to exclusively breastfeed for the first six months of life, introducing appropriate complementary foods at six months and continue breast feeding up to 12 months of life.

- Breast feeding should only stop once a nutritionally adequate and safe diet without breast milk can be provided and supported.

Both mother and their infants should receive prophylaxis or ART in line with the Guidelines on Use of Antiretroviral Drugs For Treating and Preventing HIV Infection in Kenya, 2016 Edition

Feeding HIV Infected Infants

- Exclusive breast feeding is recommended for the first six months of life with continued breast feeding for 24 months and beyond.

- Maternal and infant ARVs should be administered as per recommendations in the Kenya ART guidelines 2016

- Appropriate complementary feeding should be introduced at six months with consideration of the energy needs as per the Kenyan National Guidelines on Nutrition and HIV 2014

- Stoppage of breast feeding for children should happen gradually within one month.

Feeding Infants Under Special Circumstances

- Special circumstances include maternal death, abandoned, severe maternal breast disease as determined by the clinician

- Refer to current MIYCN policy and breast milk substitute regulation and control act 2012

(Refer to National HIV Treatment and Infant and Young Child Feeding guidelines)
Feeding recommendations FOR ALL CHILDREN during sickness and health, and including HIV EXPOSED children on ARV prophylaxis.

NEWBORN, BIRTH UP TO 1 WEEK

- Immediately after birth, put your baby in skin to skin contact with you.
- Allow your baby to take the breast within the first hour. Give your baby colostrum, the first yellowish, thick milk. It protects the baby from many illnesses.
- Breastfeed day and night, as often as you baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk.
- If your baby is small (low birth weight), feed at least every 2 to 3 hours. Wake the baby for feeding after 3 hours, if baby does not wake self.
- DO NOT give other foods or fluids. Breast milk is all your baby needs.

1 WEEK UP TO 6 MONTHS

- Breastfeed as often as your child wants. Look for signs of hunger, such as beginning to fuss, sucking fingers or moving lips.
- Breastfeed day and night whenever your baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk.
- Do not give other foods or fluids.
- Breast milk is all your baby needs.

6 UP TO 9 MONTHS

- Breastfeed as often as your child wants.
- Also give thick porridge or well mashed foods, including animal-source foods and Vitamin A- rich fruits and vegetables.
- Start by giving 2 to 3 tablespoons of food. Gradually increase to 1/2 cups (1 cup = 250ml)
- Give 2 to 3 meals each day.
- Offer 1 or 2 snacks each day between meals when the child seems hungry.

9 UP TO 12 MONTHS

- Breastfeed as often as your baby wants.
- Also give a variety of mashed or finely chopped family food, including animal-source foods and Vitamin A- rich fruits and vegetables.
- Give 1/2 cup at each meal (1 cup = 250ml)
- Give 2 to 3 meals each day.
- Offer 1 or 2 snacks between meals. The child will eat if hungry.
- For snacks, give small chewable items that the child can hold. Let your child try to eat the snack, but provide help if needed.

12 MONTHS UP TO 2 YEARS

- Breastfeed as often as your child wants.
- Also give a variety of mashed or finely chopped family food, including animal-source foods and Vitamin A- rich fruits and vegetables.
- Give 3/4 cup at each meal (1 cup = 250ml)
- Give 3 to 4 meals each day.
- Offer 1 or 2 snacks between meals.
- Continue to feed your child slowly, patiently. Encourage -but do not force- your child to eat.

2 YEARS & OLDER

- Give a variety of family foods to your child, including animal- source foods and Vitamin A-rich fruits and vegetables.
- Give at least 1 cup at each meal (1 cup = 250ml).
- Give 3 to 4 meals each day.
- Offer 1 or 2 snacks between meals.
- If your child refuses food, offer “tastes” several times. Show that you like the food. Be patient.
- Talk with your child during a meal, and keep eye contact.
COUNSEL THE CAREGIVER

Recommendations for Care for Child’s Development

BEFORE BIRTH

Your Unborn Child Learns in Utero

PLAY: Talk and read to your baby frequently. This way, she will know your voice well by the time she is born. With enough conversation directed her way, she can hear dad’s voice also.

Provide a calming touch. If the baby seems restless, soothe her by gently stroking/massaging your abdomen.

COMMUNICATE: Create a pleasant environment. Although muffled by mom’s womb, sounds from the outside do reach the baby. Avoid unpleasant noise when possible to create a relaxing ambiance for your baby.

COMMUNICATE: Look into baby’s eyes and talk to your baby. When you are breast feeding is a good time. Even a newborn baby sees your face and hears your voice.

NEWBORN, BIRTH UP TO 2 MONTHS

Your baby learns from birth

PLAY: Provide ways for your baby to see, hear, move arms and legs freely, and touch you. Gently soothe, stroke and hold your child. Skin to skin is good.

COMMUNICATE: Smile and laugh with your child. Talk to your child. Get a conversation going by copying your child’s sounds or gestures.

COMMUNICATE: Respond to your child’s sounds and interests. Call the child’s name, and see your child respond.

COMMUNICATE: Tell your child the names of things and people. Show your child how to say things with hands, like “bye bye” Sample toy: doll with face.

COMMUNICATE: Ask your child simple questions. Respond to your child’s attempts to talk. Show and talk about nature, pictures and things.

COMMUNICATE: Encourage your child to talk and answer your child’s questions. Teach your child stories, songs and games. Talk about pictures or books. Sample toy: book with pictures.

PLAY: Provide ways for your child to see, hear, feel, move freely and touch you. Slowly move colourful things for your child to see and reach for. Sample toys: shaker rattle, big ring on a string.

PLAY: Give your child clean, safe household things to handle, bang, and drop. Sample toys: containers with lids, metal pot and spoon.

PLAY: Hide a child’s favourite toy under a cloth or box. See if the child can find it. Play peek-a-boo.

PLAY: Give your child things to stack up and to put into containers and take out. Sample toys: Nesting and stacking objects, container and clothes clips.

PLAY: Help your child count, name and compare things. Make simple toys for your child. Sample toys: objects of different colours and shapes to sort, stick or chalk board, puzzle.

2 MONTHS UP TO 6 MONTHS

6 MONTHS UP TO 9 MONTHS

9 MONTHS UP TO 12 MONTHS

12 MONTHS UP TO 2 YEARS

2 YEARS AND OLDER

Give your child affection and show your love ● Be aware of your child’s interests and respond to them ● Praise your child for trying to learn new things.
If the child is not being cared for as described in the above recommendations, counsel the Caregiver accordingly.

In addition:

- Discuss way to have the baby see, hear, feel and move appropriately for age.

- If the child cannot be breast-fed, counsel the Caregiver to:
  - Hold the child close when feeding, look at the child, and talk or sing to her/him.

- If the Caregiver does not know what her/his child does to play or communicate:
  - Inform her/him that children play and communicate from birth.
  - Demonstrate for her/him how the child responds to activities.

- If the Caregiver feels she/he does not have enough time to provide care for development, encourage her/him to:
  - Combine care for development with other care for the child (feeding, bathing, dressing).
  - Ask other family members to help provide care for development or help her/him with other tasks.

- If the Caregiver has no toys for the child to play with, counsel the Caregiver to:
  - Use any household objects that are clean and safe.
  - Make simple toys.
  - Play with the child, as the child will learn by playing with her/him and other people.

- If the child is not responding, or seems “slow”:
  - Encourage the Caregiver to do extra care for development activities.
  - Check to see whether the child is able to see and to hear.
  - Refer the child with difficulties seeing or hearing to special services.
  - Encourage the Caregiver and other family members to play and communicate with the child through touch and movement.

- If the child is being raised by someone other than the mother, help the caretaker to:
  - Identify at least one person who can care for the child regularly and give the child love and attention.
  - Expect that, with love and special attention, the child can recover from the loss of a parent.

- Advise the mother to return for follow-up in 14 days:
  - Assess as per the recommendations for care for development.
WHEN TO RETURN IMMEDIATELY

BRING ANY SICK CHILD IF:
- Not able to drink or breastfeed
- Becomes sicker
- Develops fever

BRING CHILD WITH COUGH IF:
- Fast breathing

BRING CHILD WITH DIARRHOEA IF:
- “RED” blood in stool
- Drinking poorly

BRING YOUNG INFANT TO CLINIC IF ANY OF THE ABOVE SIGNS OR:
- Breast feeding poorly
- Feels unusually cold/hot
- Palms and soles appear yellow

GIVE GOOD HOME CARE FOR YOUR CHILD

FOR ANY SICK CHILD:
- If child is breast-fed, breastfeed more frequently and for longer at each feed.
- If child is taking breast milk substitutes, increase the amount of milk given.
- Increase other fluids. You may give soup, rice, water, yoghurt drinks or clean water. Give these fluids as much as the child will take. Give frequent small sips from a cup.
- If the child vomits, wait 10 minutes then continue - but more slowly.
- Continue providing extra feeding for up to 2 weeks.

EXCLUSIVELY BREASTFEED THE YOUNG INFANT
- Give only breast-feeds to the young infant.
- Breastfeed frequently, as often and for as long as the infant wants.

MAKE SURE THAT THE YOUNG INFANT IS KEPT WARM AT ALL TIMES
- In cool weather cover the infant’s head and feet and dress the infant with extra clothing.

FOR CHILD WITH DIARRHOEA
- Breastfeed frequently and for longer at each feed.
- Give fluids:
  - ORS
  - Food based fluids, such as soup, rice water, yoghurt drinks
  - Clean water
- Give Zinc supplement
- Continue giving extra fluid until the diarrhoea stops

COUNSEL THE MOTHER
When To Return for Scheduled Visits

<table>
<thead>
<tr>
<th>If the child has:</th>
<th>Return for follow-up in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEUMONIA</td>
<td>2 DAYS</td>
</tr>
<tr>
<td>DYSENTERY</td>
<td></td>
</tr>
<tr>
<td>SOME DEHYDRATION</td>
<td></td>
</tr>
<tr>
<td>EYE OR MOUTH COMPLICATIONS OF MEASLES</td>
<td></td>
</tr>
<tr>
<td>FEVER- NO MALARIA; IF FEVER PERSISTS</td>
<td>3 DAYS</td>
</tr>
<tr>
<td>UNCOMPLICATED MALARIA</td>
<td></td>
</tr>
<tr>
<td>PERSISTENT DIARRHOEA, NO DEHYDRATION</td>
<td>5 DAYS</td>
</tr>
<tr>
<td>ACUTE EAR INFECTION</td>
<td></td>
</tr>
<tr>
<td>CHRONIC EAR INFECTION</td>
<td></td>
</tr>
<tr>
<td>ANY OTHER ILLNESS, IF NOT IMPROVING</td>
<td></td>
</tr>
<tr>
<td>SEVERE MALNUTRITION WITHOUT COMPLICATIONS</td>
<td>7 DAYS</td>
</tr>
<tr>
<td>MODERATE ACUTE MALNUTRITION</td>
<td>14 DAYS</td>
</tr>
<tr>
<td>NO ACUTE MALNUTRITION</td>
<td></td>
</tr>
<tr>
<td>ANAEMIA</td>
<td></td>
</tr>
<tr>
<td>POOR INTERACTION AND/OR COMMUNICATION AND RESPONSIVENESS</td>
<td></td>
</tr>
<tr>
<td>DEVELOPMENTAL MILESTONE ALERT</td>
<td>30 DAYS</td>
</tr>
<tr>
<td>CONFIRMED HIV INFECTION</td>
<td></td>
</tr>
<tr>
<td>HIV EXPOSED</td>
<td>MONTHLY</td>
</tr>
</tbody>
</table>

COUNSEL THE MOTHER

About Her Own Health

If the mother is sick, provide care for her, or refer her for help.

- If she has a breast problem (such as engorgement, sore nipples, breast infection), provide care for her or refer her for help.
- Advise her to express milk from breasts if separated from the baby for more than one day to maintain lactation and prevent breast engorgement.
- Advise her to eat well to keep up her own strength and health.
- Encourage male involvement in reproductive and child health care.
- Check her immunization status including the 5Ts.
- Check vitamin A status to be given if within 6 weeks of delivery.

- Make sure she has access to:
  - Breast examination and Cervical Cancer Screening
  - Family planning
  - Counseling on STI and Reproductive Tract Infection (RTI) prevention

- If the mother is HIV Positive
  - Emphasize on importance of early testing for the child and enrollment into HIV care if child is positive
  - Emphasize on the importance of adhering to HIV treatment for both mother and child
  - Refer mother for HIV care and support if services not offered in facility
  - Encourage parents to seek Voluntary Counseling and Testing (VCT).
  - Re-emphasize the importance of safe sex and early treatment of STI/RTI and counsel regarding future pregnancies.

- If baby is less than 2 months:
  - Ask mother about her lochia
  - Ask about perineal care
  - Ask about C/S scar where applicable
  - If PMTCT not done counsel and test
  - If on ART or other medication counsel on compliance
  - Remind her of post-partum schedule (Within 48hrs, 2-4weeks, 4-6 weeks)
**ASSESS THE MOTHER WHAT THE YOUNG INFANT’S PROBLEMS ARE**

Determine if this is an initial or follow-up visit for this problem.
- If follow-up visit, use the follow-up instructions on the bottom of this chart.
- If initial visit, assess the young infant as follows:

### CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

**ASK**
- Has the infant had convulsions? Fits/twitching?
- Ask and Look:
  - Is the infant not able to feed or breastfeed?
  - Is there blood in the stool?

**LOOK, LISTEN, FEEL**
- Look for breathing: is the baby gasping or not breathing at all when stimulated.
- Count the breaths in one minute. Repeat the count if elevated.
- Look for severe chest indrawing.
- Look and listen for grunting or wheezing.
- Look for nasal flaring.
- Look for central cyanosis and pulse oximetry where available.
- Look and feel for bulging anterior fontanelle.
- Look at the umbilicus. Is it red or draining pus? Look for severe abdominal distension.
- Measure axillary temperature (or feel for fever or low body temperature)
- Look for skin pustules.
- Look for high pitched cry.
- Look at the young infant’s movements.
  - Does the infant move on his/her own?
  - Does the infant move even when stimulated but then stops?
  - Does the infant not move at all?
  - Is the infant restless and irritable?

**CLASSIFY ALL YOUNG INFANTS**
- Young infant must be calm

### USE ALL BOXES THAT MATCH THE CHILD’S SYMPTOMS AND PROBLEMS TO CLASSIFY THE ILLNESS.

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY AS</th>
<th>POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any of the following signs:</td>
<td>Immediately resuscitate using a bag and mask if the baby: (see pg 41)</td>
<td></td>
</tr>
<tr>
<td>- Respiratory rate less than 20 breaths per minute or</td>
<td>- Is gasping or not breathing</td>
<td></td>
</tr>
<tr>
<td>- Convulsions or convulsing now or</td>
<td>- Has a respiratory rate less than 20 breaths per minute</td>
<td></td>
</tr>
<tr>
<td>- Not able to feed or breastfeed or</td>
<td>- If convulsing now, give Phenobarbitone (See pg 42)</td>
<td></td>
</tr>
<tr>
<td>- Fast breathing (more than 60 breaths per minute) or</td>
<td>- Give first dose of Benzyl penicillin &amp; Gentamicin (See pg 13)</td>
<td></td>
</tr>
<tr>
<td>- Severe chest indrawing or</td>
<td>- Treat to prevent low blood sugar (see pg 41)</td>
<td></td>
</tr>
<tr>
<td>- Grunting or wheezing or</td>
<td>- Admit or refer URGENTLY to hospital**</td>
<td></td>
</tr>
<tr>
<td>- Nasal flaring or</td>
<td>- Advise mother how to keep the infant warm on the way to the hospital. (see pg 40)</td>
<td></td>
</tr>
<tr>
<td>- Bulging anterior fontanelle or</td>
<td>- Screen for possible TB disease and check for HIV</td>
<td></td>
</tr>
<tr>
<td>- Pus draining from the ear or</td>
<td>- If oxygen saturation is less than 90%, start oxygen therapy and refer or admit</td>
<td></td>
</tr>
<tr>
<td>- Fever (37.5 °C or above or feels hot) or</td>
<td>- IF REFERRAL NOT POSSIBLE (see pg 37)</td>
<td></td>
</tr>
<tr>
<td>- Very low body temperature (less than 35.5 °C or Feels cold) or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Movement only when stimulated or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No movements at all.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Blood in stool.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Severe abdominal distension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High pitched cry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Oxygen saturation &lt;90%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Red umbilicus or draining pus or
- Skin pustules.

**And none of the signs of very severe disease**

### LOCAL BACTERIAL INFECTION

**Temperature between 35.5 °C to 36.4 °C**

- Give Flucloxacillin Syrup (see pg 41)
- Teach the mother to treat local infections at home. (see pg 43)
- Advise mother to give home care for the young infant.
- Follow-up in 2 days (see pg 46)
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately.

### LOW BODY TEMPERATURE

**Re-warm the young infant and reassess after 1 hour.**

- See page 39 on kangaroo warming
- Treat to prevent low blood sugar (see pg 41)
- Advise mother to give home care for the young infant
- Advise mother when to return immediately

### VERY SEVERE DISEASE OR LOCAL BACTERIAL INFECTION UNLIKELY

- Advise mother to give home care for the young infant (see pg 45)
- Screen for possible TB disease and check for HIV
- Advise mother when to return immediately

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

** If referral is not possible, see Integrated Management of Newborn and Childhood Illnesses, Treat the Child
ASSESS AND CLASSIFY SICK YOUNG INFANT AGE UP TO 2 MONTHS

CHECK FOR JAUNDICE

ASK:
- Does the young infant have yellow discoloration of eyes, palms or soles?
- If yes, for how long?

LOOK:
- Look for jaundice (yellow eyes or skin)
- Look at the young infant’s palms and soles. Are they yellow?

CHECK FOR EYE INFECTIONS

IF YES:
- For how long?

LOOK AND FEEL:
- Crossed eyes
- Excessive tearing
- Fear of light
- Clouding of the cornea
- Squeezing of the eyes
- Red eyes
- Whiteness in the pupil
- Eye discharge, if yes for how long?
- Eyes draining pus
- Swollen eyes

CLASSIFY EYE INFECTIONS

CROSSED EYES
- White spot on the pupil and crossed eyes

SQUINT
- Congenital Cancer of the Eye

CONGENITAL GLAUCOMA
- Clouding of the cornea and no signs of measles, fear of light and excessive tearing.

CONGENITAL CATARACT
- Bilateral white spots on the pupil area.

SEVERE EYE INFECTION
- Eyes swollen or draining pus

IDENTIFY TREATMENT

SEVERE JAUNDICE
- Any jaundice if age less than 24 hours or
- Yellow eyes, palms and soles at any age
- Any visible yellowness in a pre-term baby regardless of when it appears

IDENTIFY TREATMENT
- Treat to prevent low blood sugar: (see pg 41)
- Refer URGENTLY to hospital.
- Advise mother how to keep the infant warm on the way or the Hospital (see pg 40)
- Screen for possible TB disease

JAUNDICE
- Yellowness appearing after 24 hours of age
- Yellowness in the eyes & skin
- Palms and Soles NOT yellow

IDENTIFY TREATMENT
- Advise the mother to give home care for the young infant. (see pg 45)
- Advise mother to return immediately if eyes, palms and soles appear yellow (see pg 45)
- Follow up in 1 day (see pg 46)

NO JAUNDICE
- No jaundice

IDENTIFY TREATMENT
- Advise mother to give home care for the child (see pg 45)

CONGENITAL CONDITION or EYE INFECTION UNLIKELY
- No signs to classify for congenital condition or eye infection

IDENTIFY TREATMENT
- Advise mother to give home care for the child (see pg 45)
**THEN ASK: DOES THE YOUNG INFANT HAVE DIARRHOEA OR SIGNS OF DEHYDRATION?**

**IF YES ASK:**
- For how long?
- Does the child have diarrhoea?
- Is the child vomiting?
- Is the child able to feed?

Look at the young infant’s general condition.

**Infants Movements**
- Does the child move on his/her own?
- Does the infant move even when stimulated but then stops?
- Does the infant not move at all?
- Is the infant restless and irritable?

- Look for sunken eyes.
- Pinch the skin of the abdomen. Does it go back:
  - Very slowly (longer than 2 seconds)?
  - Slowly?
  - Immediately?

- Assess the young infant’s ability to feed
- Assess the young infant’s urine output

**CLASSIFY**

<table>
<thead>
<tr>
<th>Two of the following signs:</th>
<th>SEVERE DEHYDRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement only when stimulated or no movement at all.</td>
<td>If infant has no other severe classification:</td>
</tr>
<tr>
<td>Sunken eyes</td>
<td>• Give fluid for severe dehydration (Plan C) (see pg 19)</td>
</tr>
<tr>
<td>Skin pinch goes back very slowly</td>
<td>OR</td>
</tr>
<tr>
<td>Child not passing urine.</td>
<td>• Advise mother to continue breast feeding.</td>
</tr>
<tr>
<td>Child not able to feed.</td>
<td>• If child is not passing urine admit/refer urgently to hospital.</td>
</tr>
</tbody>
</table>

**IDENTIFY TREATMENT**

**SEVERE DEHYDRATION**
- Give fluid and breast milk for some dehydration (Plan B) (see pg 18)
- Advise mother when to return immediately (see pg 45)
- Follow-up in 2 days if not improving (see pg 46)
- If infant also has VERY SEVERE CLASSIFICATION
  - Admit/Refer URGENTLY to hospital** with the mother giving frequent sips of ORS on the way if child has diarrhoea.
  - Advise mother to continue breast feeding

**SOME DEHYDRATION**
- Give ORS and Zinc sulphate if child has diarrhoea (see pg 18 and 42)
- Advise mother when to return immediately
- Follow-up in 2 days if not improving.

**NO DEHYDRATION**
- Give fluids to treat diarrhoea at home and continue breast feeding at home (Plan A) (see pg 18)
- Give ORS and Zinc sulphate if child has diarrhoea (see pg 18 and 42)
- Advise mother when to return immediately
- Follow-up in 2 days if not improving.

**TABLE 38**
**CHECK FOR HIV EXPOSURE AND INFECTION**

**ASK**
- Has the mother and/or young infant had an HIV test?

**IF YES:**
- What is the mother’s HIV status?:
  - Antibody test is POSITIVE
  - Antibody test is NEGATIVE

If mother is HIV positive and NO positive DNA PCR test in child ASK:

Is the mother on ART and young infant on ARV prophylaxis?

**IF NO TEST:** Mother and young infant status unknown
Perform HIV test for the mother: If positive, perform DNA PCR test for the young infant

If the mother is NOT available, do an antibody test on the child. If positive, do a DNA PCR test.

**CLASSIFY HIV STATUS**

<table>
<thead>
<tr>
<th>HIV EXPOSED</th>
<th>CONFIRMED HIV INFECTION</th>
<th>HIV NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive antibody test in young infant</strong></td>
<td><strong>Mother HIV positive and negative DNA PCR in young infant.</strong></td>
<td><strong>Mother’s antibody test is NEGATIVE</strong></td>
</tr>
<tr>
<td><strong>Mother HIV positive, young infant not yet tested.</strong></td>
<td><strong>OR</strong></td>
<td><strong>Manage presenting conditions according to IMNCI and other recommended national guidelines</strong></td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td><strong>Treat, counsel and follow up existing infections</strong></td>
<td><strong>Advise the mother about feeding and about her own health (see pg 31)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Initiate Cotrimoxazole prophylaxis (see page 20)</strong></td>
<td><strong>Advise the mother about feeding and about her own health (see pg 31)</strong></td>
</tr>
<tr>
<td></td>
<td><em><em>Start or continue PMTCT</em> prophylaxis as per the national recommendations</em>*</td>
<td><strong>Advise the mother about feeding and about her own health (see pg 31)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Assess child’s feeding and provide appropriate counseling to the mother/caregiver</strong></td>
<td><strong>Refer to appropriate national ART guidelines for comprehensive care of the child (see pg 24)</strong></td>
</tr>
<tr>
<td></td>
<td><em><em>Start or continue PMTCT</em> prophylaxis as per the national recommendations</em>*</td>
<td><strong>Screen for possible TB disease at every visit.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Assess child’s feeding and provide appropriate counseling to the mother/caregiver</strong></td>
<td><strong>Follow up monthly as per the national ART guidelines and offer comprehensive management of HIV. Refer to appropriate national ART guidelines for comprehensive HIV care of the child (see pg 24)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Immunize as per schedule (see pg 38)</strong></td>
<td><strong>Refer to appropriate national ART guidelines for comprehensive care of the child (see pg 24)</strong></td>
</tr>
</tbody>
</table>

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**PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT) ART prophylaxis**
- Initiate ART treatment for all pregnant and lactating women with HIV infection, and put their infant on ART prophylaxis as per the national guidelines
- Refer to Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infections in Kenya available at [http://www.nascop.or.ke](http://www.nascop.or.ke)
**CHECK FOR FEEDING PROBLEM**

**LOW WEIGHT OR LOW BIRTH WEIGHT:**

- **LOOK, LISTEN, FEEL:** Determine weight for age (see pg 53 and 54)
  - Look for ulcers or white patches in the mouth (thrush).
  - Determine mother’s HIV status:
    - positive
    - negative or
    - unknown.
  - Determine HIV exposed infant’s HIV status:
    - positive
    - negative or
    - unknown.
- **CLASSIFY**
  - Not well attached to breast OR
  - Not suckling effectively OR
  - Breast-feeds less than 8 times in 24 hours OR
  - Receives other foods or drinks OR
  - Low weight for age OR
  - Thrush (white patches in mouth) OR
  - Mouth ulcers
  - Features suggestive of possible TB disease
  - Not low weight for age and no other signs of inadequate feeding.

- **IDENTIFY TREATMENT**
  - 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 and show correct positioning and attachment (see pg 44)
    - If breast feeding less than 8 times in 24 hours advise to increase frequency of feeding.
  - Advise mother to give home care (see pg 45)
  - Manage as for FEEDING PROBLEM OR LOW WEIGHT.
  - Check for HIV.

- **ASSESS BREAST FEEDING:**
  - Has the infant breast-fed in the previous hour?
  - If yes ______
  - No ______
  - If yes, How many times in 24 hours?
  - During the day ______
  - During the night ______
  - If no, why?
  - Does the infant usually receive any other foods or drinks?
    - Yes ______
    - No ______
  - Screen for possible TB disease

**If the infant has no indications for urgent referral to hospital from previous assessment:**

- **TO CHECK CORRECT POSITIONING, LOOK FOR:**
  - Infant’s head and body straight.
  - Infant facing the mother’s breast with nose opposite the nipple.
  - Infants body close to the mother’s body.
  - Mother supporting infant’s whole body
  - Is the child well positioned?
    - Well positioned.
    - Not well positioned

- **TO CHECK ATTACHMENT, LOOK FOR:**
  - Chin touching breast
  - Mouth wide open
  - Lower lip turned outward
  - More areola visible above than below the mouth
  - All of these signs should be present if the attachment is good.
  - Is the infant able to attach?
    - not well attached
    - good attachment
  - Is the infant sucking effectively (that is, slow deep sucks, sometimes pausing)?
    - not sucking effectively
    - sucking effectively

- **Check for HIV and screen for possible TB disease**

- **T A B L E : 4 0**

**CHECK FOR LOW BIRTH WEIGHT IN YOUNG INFANT LESS THAN 1 WEEK**

- **Weight less than 1500gm**
  - VERY LOW BIRTH WEIGHT
  - Treat to prevent low blood sugar (see pg 41)
  - Advise mother to keep the young infant warm on the way to hospital (pg 40)
  - Refer urgently to hospital.
  - Check for HIV.

- **Weight between 1500gm and 2499gm**
  - LOW BIRTH WEIGHT
  - Manage as for FEEDING PROBLEM OR LOW WEIGHT.
  - Advise mother to keep the young infant warm (pg 39)
  - Follow up in 14 days (see pg 47)
  - Check for HIV and screen for possible TB disease.

- **Weight 2500gm or more**
  - NORMAL BIRTH WEIGHT
  - Advise mother to give home care to the young infant (see pg 45)
  - Advise the mother to keep infant warm (see pg 39 and 40)
  - Check for HIV and screen for possible TB disease.

Children with above positive 2 SD refer for further assessment and management.
WHERE REFERRAL IS REFUSED OR NOT FEASIBLE: For Sick Young Infant WITH POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

FURTHER CLASSIFY THE SICK YOUNG INFANT:

<table>
<thead>
<tr>
<th>SIGNS</th>
<th>CLASSIFY</th>
<th>IDENTIFY TREATMENT</th>
</tr>
</thead>
</table>
| Young infant has any one of the following:  
  • Convulsions or convulsing now  
  • Not able to feed or breastfeed  
  • No movement at all  
  • Weight <1.5 kg  
  • Respiratory Rate less than 20 breaths per minute  
  • Grunting  
  • Pus draining from the ear  
  • Blood in stool  
  • Severe abdominal distension  
  • High pitched cry  
  • Oxygen saturation less than 90%  | CRITICAL ILLNESS  
  • Reinforce URGENT referral. Explain to the caregiver that the infant is very sick and needs urgent referral further evaluation and hospital care  
  • If referral is still not possible, give once daily IM gentamicin for 2 days and oral amoxicillin dispersible tablet twice a day for 7 days or until referral is possible (see pg 42)  
  • Treat to prevent low blood sugar (see pg 41)  
  • Teach the mother how to keep the young infant warm at home (see pg 39)  
  • Advise the mother to return immediately if the child becomes worse  
  • Advise the mother to return for the second injection on day 2  
  • On day 2 reinforce the need for urgent referral  
  • If referral is still not possible give the second IM gentamycin and advise to complete oral amoxicillin for seven days (see pg 42)  
  • Advise the mother to return for a mandatory review on day 4  
  • Reassess the young infant at each visit  
  • Treat any other classifications that the young infant has.  |

| Young infant has any one of the following:  
  • Not feeding well on observation  
  • Temperature 37.5°C or more  
  • Temperature less than 35.55°C  
  • Severe chest indrawing  
  • Movement only when stimulated  
  • Fast breathing (60 breaths per minute or more) in infants less than 7 days old  
  • Wheezing  
  • Nasal flaring  | CLINICAL SEVERE INFECTION  
  • Give once daily IM gentamicin for 2 days and oral amoxicillin dispersible tablet twice a day for 7 days or until referral is possible (see pg 42)  
  • Treat to prevent low blood sugar (see pg 41)  
  • Teach the mother how to keep the young infant warm at home (see pg 39)  
  • Advise the mother to return immediately if the child becomes worse  
  • Advise the mother to return for the second injection on day 2  
  • On day 2 reinforce the need for urgent referral  
  • If referral is still not possible give the second IM gentamycin and advise to complete oral amoxicillin for seven days (see pg 42)  
  • Advise the mother to return for a mandatory review on day 4  
  • Reassess the young infant at each visit  
  • Treat any other classifications that the young infant has.  |

*Countries may decide to treat with IM gentamicin for 7 days or 2 days. If a country chooses 2 days, then there is a mandatory follow-up visit on day 4.

**Note that a young infant 7-59 days old having fast breathing (60 breaths per minute or more) does NOT need to be referred; treat at outpatient clinic with oral amoxicillin.
CHECK FOR SPECIAL TREATMENT NEEDS

ASK, CHECK, RECORD

Ask, check and record for special treatment needs

Has the mother had within 2 weeks of delivery:

- Fever >38°C?
- Infection treated with antibiotic?
- Membranes ruptured >18 hours before delivery?
- Foul smelling liquor?
- Mother tested VDRL positive?

Does the mother/caregiver/close household contact have TB disease?

Is the infant receiving any other foods or drinks?

CHECK THE YOUNG INFANT’S IMMUNIZATION STATUS

IMMUNIZATION SCHEDULE:

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccine</th>
<th>BCG</th>
<th>bOPV-0</th>
<th>DPT / HepB / Hib -1</th>
<th>PCV 10-1</th>
<th>ROTA 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth*</td>
<td>BCG</td>
<td>bOPV -0</td>
<td>DPT / HepB / Hib -1</td>
<td>PCV 10-1</td>
<td>ROTA 1</td>
<td></td>
</tr>
<tr>
<td>6 Weeks</td>
<td>bOPV -1</td>
<td>DPT / HepB / Hib -1</td>
<td>PCV 10-1</td>
<td>ROTA 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Give all missed doses on this visit.
Include sick babies and those without mother child health booklet.
If the child has no booklet, issue a new one today.
Advise the mother when to return for the next dose.

Use Assess Classify and Identify Treatment Chart in page 10 for child’s developmental milestones and Assess for Interaction, Communication and Responsiveness (see pg 11)
Assess for other problems that the infant may have.
Assess the mother’s / caregiver’s health needs (see pg 12)
ROUTINE CARE FOR ALL NEWBORNS AFTER DELIVERY

The routine care described below applies to all newborns, either born in hospital or born outside and brought to the hospital.

- Keep the baby in skin-to-skin contact on the mother’s chest or at her side, in a warm, draught-free room.
- Start breast feeding within the first hour as soon as the baby shows signs of readiness to feed.
- Let the infant breastfeed on demand if able to suck.
- Give IM vitamin K to all newborns.
  - 1 ampoule (1 mg/0.5 ml or 1 mg/ml) once. (Do not use 10 mg/ml ampoule.)
  - For pre-term neonates<1500gm, give 0.5 mg IM.
- Keep umbilical cord clean and dry. Apply 7.1% Chlorhexidine digluconate (4% chlorhexidine) upon cutting the cord and once daily for 7 days thereafter or until the cord detaches (whichever occurs earlier)
- Apply Tetracycline Eye ointment to both eyes once at birth.
- Give oral polio and BCG vaccines.

KEEP THE YOUNG INFANT WARM

Kangaroo Mother Care is defined as early, prolonged continuous skin-to-skin contact between a mother or her surrogate and her pre-term baby or low birth weight infant. The difference between KMC and skin-to-skin care (which is recommended for all newborns at birth) is in the duration of contact.

Skin-to-skin care is usually done immediately after birth for a short time for every newborn to ensure that all babies stay warm in the first hours of life and helps in early initiation of breast feeding while KMC is prolonged skin to skin contact for a minimum of 20 hours per day

- All stable babies born below 2500g should be started on KMC
- Stable babies between 2000g and 2500g should be evaluated by a health worker, the mother counselled on KMC, the baby initiated and discharged on KMC
- All stable babies below 2000g should be admitted into a KMC unit and started on KMC
  - Stable babies weighing between 1800g and 2000g can be started on KMC soon after birth
  - Babies weighing between 1200g and 1799g should be stabilized then started on KMC as soon as possible
- Babies weighing less than 1200g should be transferred immediately to a centre that can offer intensive neonatal care. It may take weeks before their condition allows the initiation of KMC. Depending on the facilities available for the transfer, KMC can be utilised to keep the baby warm during the transfer to the higher level facility.
Warm the young infant using skin to skin contact (Kangaroo Mother Care)

- Maintain hand and body hygiene
- Provide privacy to the mother. If mother is not available, skin to skin contact can be provided by any other adult.
- Request the mother to sit or recline comfortably.
- Undress the baby gently, except for cap, nappy and socks
- Ask the mother to wear light, loose clothing that is comfortable in the ambient temperature, and can accommodate the young infant.
- Place the young infant on the mother's chest prone in an upright and extended posture, between her breasts in skin to skin contact; turn the baby's head to one side to keep airways clear.
- Ensure that the young infant's hips and elbows are flexed into a frog-like position and the head and chest are on the mother's chest, with the head in a slightly extended position.
- Secure the baby on to the mother's chest with a clean lesso or soft cloth or any of the other recommended carrying pouches for KMC babies that are available
- Wrap the mother-baby duo with an added blanket or shawl. Cover the young infant with mother's clothes;
- After positioning the young infant, allow mother to rest with the young infant.
- Breastfeed the young infant frequently
- If possible, Warm the room (>25°C) with a heating device

Reassess after 1 hour:
- Assess for signs of Very Severe Disease. >See “VERY SEVERE DISEASE” above.
- Measure axillary temperature by placing the thermometer in the axillar for 5 minutes (or feel for low body temperature).

If any signs of “very severe disease” or temperature still below 36.5°C:
- Refer URGENTLY to hospital after giving pre-referral treatment for “Very Severe Disease”.

If no signs of “Very Severe Disease” And temperature 36.5°C or more:
- Advise how to keep the young infant warm at home.
- Advise mother to give home care.
- Advise mother when to return immediately.

TEACH THE MOTHER HOW TO KEEP THE YOUNG INFANT WARM ON THE WAY TO THE HOSPITAL

- Provide skin to skin contact OR
- Keep the young infant clothed or covered as much as possible all the time. Dress the young infant in 3-4 layers of clothes (including hat, gloves, socks) and wrap him/her in a soft dry cloth and cover with a shawl or blanket. Hold the baby close to your body.
TREAT THE YOUNG INFANT

Newborn Resuscitation
For trained health workers - Be prepared

Note for all newborns:
✓ Practice delayed cord clamping to prevent early infant anemia
✓ Clean the cord with 7.1% Chlorhexidine Digluconate (4% Chlorhexidine) immediately after birth and then once daily until the cord separates
✓ Ensure HIV risk known and give TEO & Vitamin K

PREPARE BEFORE DELIVERY - EQUIPMENT, WARMTH, GETTING HELP

Breathing should be started within 60 secs

• Use warm cloth to dry and stimulate baby
• Observe activity, color and breathing
• Wrap in dry, warm towel with chest exposed

Before first breath and Before drying / stimulating
• Suck / clean oropharynx under direct vision

Do not do deep, blind suction

Before second breath
• Skin to skin contact with mother to keep warm and observe
• Initiate breast feeding

Baby now active & taking breaths?

Yes
• Keep warm
• Count rate of breathing and heart rate
• Give oxygen if continued respiratory distress

No

- Check airway is clear
  If anything visible, use suction to clear
  • Put head in neutral position

- Is baby breathing?
  Poor or NO breathing / gasping

ABC ok

Yes

- Continue with about 30 breaths / min,
  Reassess ABC every 1 - 2 mins,
  Stop bagging when breathing and heart rate OK

No

- Give cycles of 1 EFFECTIVE breath for every 3 chest compressions for 1 min.
- Reassess ABC every 1 - 2mins
- Stop compressions when HR > 60 bpm and support breathing until OK

SHOUT FOR HELP ! Start ventilation Ensuring the chest rises continue at about 30 breaths / min Check heart rate at 1 min

Is heart rate > 60 bpm?

Yes

- Give recommended dose of Intravenous / intramuscular antibiotics

Give the drug as intramuscular injection

Gentamicin.

Do not mix benzyl penicillin with Gentamicin.

Give an Appropriate Antibiotic For local bacterial infection:

Oral antibiotics aged <7days

Oral Antibiotics Aged < 7 days
25mg/kg 125mg/5mls 12 hourly

Weight (kg) Amoxicillin Ampicillin Flucloxacillin

2.0 2.0 2.0 2.0
2.5 3.0 3.0 3.0
3.0 3.0 3.0 3.0
4.0 4.0 4.0 4.0

Low blood sugar (hypoglycemia) may be suspected in any infant or child who is convulsing or has loss of consciousness for which there is no obvious cause; has a rectal temperature of below 35.5°C, is drowsy or sweating, is lethargic, floppy or jittery

TREAT THE YOUNG INFANT

GIVE THESE TREATMENTS IN HEALTH FACILITY ONLY

• Explain to the Mother why the drug is being given.
• Determine the dose appropriate for the infant’s weight (or age)
• Use a sterile needle and sterile syringe to accurately measure the dose.
• Do not mix benzyl penicillin with Gentamicin.
• Give the drug as intramuscular injection
• If the infant cannot be referred, follow instructions provided in the section
• Where Referral is not Possible (see pg 42)

TREAT THE YOUNG INFANT

Give recommended dose of Intravenous / intramuscular antibiotics

Intravenous / intramuscular antibiotics aged < 7days

<table>
<thead>
<tr>
<th>Weight (kg)</th>
<th>Benzyl Penicillin (50,000iu/kg)</th>
<th>Ampicillin (50mg/kg)</th>
<th>Flucloxacillin (50mg/kg)</th>
<th>Gentamicin (3mg/kg&lt;2kg, 5mg/kg≥2kg)</th>
<th>Ceftriaxone (50mg/kg)</th>
<th>Metronidazole (7.5m/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>12 hrly 50 50 3 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.25</td>
<td>12 hrly 75 60 4 62.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.50</td>
<td>24 hrly 75 75 5 75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.75</td>
<td>24 hrly 100 85 6 75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>12 hrly 100 100 10 150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.50</td>
<td>12 hrly 150 125 12.5 125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.00</td>
<td>12 hrly 150 150 15 150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>12 hrly 200 200 20 200</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Referral is the best option for a young infant with SEVERE DISEASE.
**TREAT THE YOUNG INFANT**

**Treatment of convulsions**

Convulsions in the first 1 month of life should be treated with Phenobarbitone 20mg/kg stat, a further 5-10mg/kg can be given within 24 hours of the loading dose with maintenance doses of 5mg/kg daily.

**AGE > 1 month.**

1. Ensure safety and check ABC
2. Start oxygen
3. Treat both fit and hypoglycaemia: Give IV diazepam 0.3mg/kg slowly over 1 minute, OR rectal diazepam 0.5 mg/kg. Check glucose / give 5 ml/kg 10% Dextrose
4. Check ABC when fit stops

**Check ABC, observe and investigate cause**

**Convulsion stops by 10 minutes?**

Yes

- If children have up to 2 fits lasting < 5 mins, they DO NOT require emergency drug treatment
- Treatment: 5) Give IV diazepam 0.3mg/kg slowly over 1 minute, OR rectal diazepam 0.5 mg/kg, 6) Continue oxygen
- 7) Check airway is clear when fit stops

No

**Convulsion stops by 15 minutes?**

Yes

- Check ABC, observe and investigate cause

No

**Child convulsing for more than 5 minutes:**

- If children have up to 2 fits lasting < 5 mins, they DO NOT require emergency drug treatment
- Treatment: 5) Give IV diazepam 0.3mg/kg slowly over 1 minute, OR rectal diazepam 0.5 mg/kg, 6) Continue oxygen
- 7) Check airway is clear when fit stops

**WHERE REFERRAL IS REFUSED OR NOT FEASIBLE:** For Sick Young Infant WITH POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

**Give Intramuscular Gentamicin and Amoxicillin**

- For CRITICAL ILLNESS: Give Gentamicin 5–7.5 mg/kg/day once daily and Ampicillin 50 mg/kg twice daily till referral is possible or for 7 days.
- For CLINICAL SEVERE INFECTION: Give Gentamicin 5–7.5 mg/kg/day once daily for 7 days*

**Give Oral Amoxicillin**

- For CLINICAL SEVERE INFECTION
- For SEVERE PNEUMONIA (fast breathing alone in infants less than 7 days)

**Give Zinc Sulphate for a young infant with diarrhoea:**

For children >2 months refer to page 14, Table 19 on Zinc Sulphate Dosage

For Rehydration Therapy and feeding for diarrhoea, refer to page 18 and 19

**STAT dose at 50,000 iu/kg**
COUNSEL THE MOTHER

TEACH THE CAREGIVER TO TREAT LOCAL INFECTIONS AT HOME

Follow the instructions below for every oral drug to be given at home. Also follow the instructions listed with each drug’s dosage table.
• Explain how the treatment is given.
• Watch her as she does the first treatment in the clinic.
• She should return to the clinic if the infection worsens.
• Check the mother’s understanding before she leaves the clinic.

TO TREAT SKIN PUSTULES OR UMBILICAL INFECTION

Apply Gentian Violet twice daily for 5 days.
The mother should:
• Wash hands
• Gently wash off pus and crusts with soap and water
• Dry the area
• Paint with gentian violet
• Wash hands
• Give oral antibiotics: Flucloxacillin and Ampicillin.

TO TREAT THRUSH (WHITE PATCHES IN MOUTH) OR MOUTH ULCERS

The mother should:
• Wash hands
• Wash mouth with clean soft cloth wrapped around the finger and wet with salt water.
• Instill Nystatin
• Wash hands
If breast-fed, advise the mother to wash her breast after feeds and apply the same medicine on the areola.

TREAT EYE INFECTION WITH TETRACYCLINE EYE OINTMENT

• Clean both eyes 3 times daily for 5 days.
• Wash hands.
• Use clean cloth and water to gently wipe away pus.
• Then apply tetracycline eye ointment in both eyes 3 times daily.
• Open the eyes of the young infant.
• Squirt a small amount of ointment on the inside of the lower lid.
• Wash hands again.
• Treat until redness is gone.
• Do not use other eye ointments or drops, or put anything else in the eye.

TEACH THE MOTHER/CAREGIVER TO GIVE ORAL DRUGS AT HOME

Follow the instructions below for every oral drug to be given at home (See Table 45) Also follow the instructions listed with each drug’s dosage table.
• Determine the appropriate drugs and dosage for the child’s age or weight.
• Tell the mother/caregiver the reason for giving the drug to the child.
• Demonstrate how to measure a dose.
• Watch the mother/caregiver practice measuring a dose by themselves.
• Ask the mother/caregiver to give the first dose to their child.
• Explain carefully how to give the drug, then label and package the drug.
• If more than one drug will be given, collect, count and package each drug separately.
• Explain that all the oral drug tablets or syrups must be used to finish the course of treatment, even if the child gets better.
• Check the mother’s/caregiver’s understanding before they leave the clinic.

• Immunize Every Sick Young Infant, as Needed.
• To Treat Diarrhoea, (See pg 18 and 19).
• To counsel the mother about care for development problems, (See pg 29).
COUNSEL THE MOTHER

TEACH CORRECT POSITIONING AND ATTACHMENT FOR BREAST FEEDING

- Show the mother how to hold her infant
  - with the infant’s head and body straight
  - facing her breast, with infant’s nose opposite her nipple
  - with infant’s body close to her body
  - supporting infant’s whole body, not just neck and shoulders.

- Show her how to help the infant to attach. She should:
  - touch her infant’s lips with her nipple
  - wait until her infant’s mouth is opening wide
  - move her infant quickly onto her breast, aiming the infant’s lower lip well below the nipple.

- Look for signs of good attachment and effective suckling. If the attachment or suckling is not good, try again.

- If still not suckling effectively, ask the mother to express breast milk and feed with cup and spoon in the clinic.

- If able to feed with a cup and spoon advise mother to continue breast feeding the infant and at the end of each feed express breast milk and feed with a cup and spoon.

- If not able to feed with a cup and spoon, refer to hospital.

TEACH THE MOTHER TO TREAT BREAST OR NIPPLE PROBLEMS

- If the nipple is flat or inverted, evert the nipple several times with fingers before each feed and put the baby on the breast.

- If the nipple is sore, apply breast milk for soothing effect and ensure correct positioning and attachment of the baby. If mother continues discomfort, feed expressed breast milk with cup and spoon.

- If breasts are engorged, let the baby continue to suck if possible. If the baby cannot suckle effectively, help the mother to express the milk and then put the young infant to the breast. Putting warm compress on the breast may help.

- If breasts abscess, advice the mother to feed from the other breast and refer. If the young infant wants more milk give appropriate formula.

**Counsel the HIV positive mother on feeding recommendations (see pg 27), about feeding problems and guidance on infant feeding in HIV context (see pg 26)**

TEACH THE MOTHER HOW TO KEEP THE YOUNG INFANT WITH LOW WEIGHT OR LOW BODY TEMPERATURE WARM AT HOME:

- Do not bathe young infant with low weight or low body temperature; instead sponge with lukewarm water to clean (in a warm room).

- Provide skin to skin contact (Kangaroo mother care) as much as possible, day and night.

- When not in skin to skin contact or if this is not possible,
  - Warm the room (>25°C) with a home heater
  - Clothe the young infant in 3-4 layers of warm clothes, cover the head with a cap (include gloves and socks) and wrap him / her in a soft dry cloth and cover with a warm blanket or shawl.
  - Let the baby and mother lie together on a soft, thick bedding.
  - Change clothes (e.g. napkins) whenever they are wet.

**FEEL THE FEET OF THE BABY PERIODICALLY—BABY’S FEET SHOULD BE ALWAYS WARM TO TOUCH**
ADVISE MOTHER TO GIVE HOME CARE FOR THE YOUNG INFANT

- FOOD
- FLUIDS
- CORD CARE:

ADVISE MOTHER ON UMBILICAL CORD CARE:
- Wash hands with soap and running water.
- Open the container of Chlorhexidine.
- Apply the Chlorhexidine to the base of the umbilical cord, cord stump, and tip of the cord. Ensure the entire cord is covered with Chlorhexidine.
- Spread the gel using your index finger
- Wash hands after application.
- Do not clean off the Chlorhexidine from the umbilicus after application. Do not wrap or bind the umbilical area after Chlorhexidine application. Do not apply anything else, except for Chlorhexidine.
- Continue application once daily up to the seventh day or until the umbilical cord falls whichever happens first.

WHEN TO RETURN

- MAKE SURE THE YOUNG INFANT STAYS WARM AT ALL TIMES.
  In cool weather, cover the infant's head and feet and dress the infant with extra clothing.

Counsel the Mother on her own health (see pg 31)
GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

ASSESS EVERY YOUNG INFANT FOR VERY SEVERE DISEASE DURING FOLLOW UP VISIT.

WHERE REFERRAL IS REFUSED OR NOT FEASIBLE: For Sick Young Infant WITH POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

CLINICAL SEVERE INFECTION:
If a 2-day gentamicin regimen is being used:
• Follow up at the next contact for injection (day 2) and on day 4 of treatment.
• At each contact, reassess the young infant as on page 12.
• If the young infant is improving, complete the 2 days treatment with IM gentamicin.
  Ask the mother to continue giving the oral amoxicillin twice daily until all the tablets are finished.

If a 7-day gentamicin regimen is being used:
• Follow up during every injection contact.

Refer young infant if:
• Infant becomes worse after treatment is started or
• Any new sign of CLINICAL SEVERE INFECTION appears while on treatment or
• Any sign of CLINICAL SEVERE INFECTION is still present after day 8 of treatment or
• If no improvement on day 4 after 3 full days of treatment.
• Depending on whether the national policy is for 2 days or 7 days gentamicin policy

LOCAL BACTERIAL INFECTION

After 2 days:
Look at the umbilicus. Is it red or draining pus?
Does redness extend to the skin?
Look at the skin pustules. Are there many or severe pustules?
Look at the eyes. Is there pus? Is there associated swelling or redness of the eyelids?

Treatment:
• If pus or redness remains or is worse, refer to hospital.
• If pus and redness are improved, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.
• If there are many or severe pustules, refer to hospital
• If skin pustules are improved, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.

EYE INFECTION

After 2 days:
Look for pus draining from the eyes.

Treatment:
• If pus is still draining from the eyes, ask the mother to describe how she has treated the eye infection.
  - If treatment has been correct, refer to hospital.
  - If treatment has not been correct, teach the mother correct treatment and advise her to give treatment for 5 days.
  - Follow up in 2 days.
• If no pus, ask the mother to continue treatment for 5 days.

JAUNDICE

After 1 day:
Look for jaundice.
- Are palms and soles yellow?

• If palms and soles are yellow or age 14 days or more, refer to hospital.
• If palms and soles are not yellow and age is less than 14 days, advise on home care and when to return immediately

DIARRHOEA: Some dehydration

After 2 days:
Ask: - Has the diarrhoea stopped?

Treatment:
• If the diarrhoea has not stopped, Assess and Treat the young infant for diarrhoea.
• If the diarrhoea has stopped, tell the mother to continue exclusive breast feeding. Advise her to continue giving zinc to complete 10 days.
GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

ASSESS EVERY YOUNG INFANT FOR VERY SEVERE DISEASE DURING FOLLOW UP VISIT.

FEEDING PROBLEM

After 2 days:
Reassess feeding.
Ask about any feeding problems found on the initial visit.
• Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the young infant back after 2 days.
• If the young infant is low weight for age, ask the mother to return 14 days after the initial visit to measure the young infant’s weight gain.

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

LOW WEIGHT OR LOW BIRTH WEIGHT

After 2 days:
Weigh the young infant and determine if the infant is still low weight for age.
Reassess feeding.
• If the infant is no longer low weight for age, praise the mother and encourage her to continue, until normal weight is attained
• If the infant is still low weight for age, but is feeding well, praise the mother. Ask her to have her infant weighed again within a month or when she returns for immunization.
• If the infant is still low weight for age and still has a feeding problem, counsel the mother about the feeding problem. Ask the mother to return again in 14 days (or when she returns for immunization, if this is within 2 weeks). Continue to see the young infant every 2 weeks until the infant is feeding well and gaining weight regularly or is no longer low weight for age.

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

THRUSH OR MOUTH ULCERS

After 2 days:
Look for ulcers or white patches in the mouth (thrush).
Reassess feeding.
• If thrush or mouth ulcers are worse or the infant has problems with attachment or sucking, refer to Hospital.
• If thrush or mouth ulcers are the same or better, and the baby is feeding well continue with Gentian Violet or Nystatin for a total of 5 days.
## Management of the Sick Child Age 2 Months Up to 5 Years

**Date of Visit:** DD/MM/YYYY ___________________________

**Facility Name:** ___________________________

**Caregiver’s Name:** ___________________________

**Caregiver’s Tel:** ___________________________

**Name of Child:** ___________________________________________________________________

**Sex:** F_______      M______

**Age:** _______________

**Weight:** ____________Kgs

**Temperature:** ____________ °C

**Height or Length:** __________cm

---

### Ask: What are the child’s problems?
_________________________________________________________________________________

Initial or Follow up Visit?__________________________

---

### Assess the Child (Circle All Signs Present)

#### Check for General Danger Signs:

**Does the child have a cough or difficulty breathing?**

- Yes___ / No____

For how long? ___________ days

- Count the breaths in one minute ___________ Breaths/Minute

- Is it Fast breathing?: Yes___ / No____

---

**Does the child have: Chest indrawing?**

- Yes___  / No___

- Stridor? Yes___  / No___

- Wheezes? Yes___ / No___

- Central Cyanosis? Yes___ / No___

---

**Does the child have diarrohea?**

- Yes___ / No____

For how long? ___________ days

- Is there blood in the stools? Yes___ / No____

---

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

- Yes___ / No_____ For how long? ___________ days

- Has fever been present for 7 days? Yes___ / No____

**Malaria Test Results:**

- Positive______ Negative______

---

**Malaria Test Results:**

- Positive______ Negative______

---

**Check for Acute Malnutrition:**

- Weight for age: Very low! Not very low

- Is there growth faltering? Yes_____ / No____

- Determined MUAC______cm

- Determine Z Score for WHF/L____

- Check oedema on both feet: Oedema on both feet? Yes_____ / No____

- Perform appetite test: Pass the appetite test? Yes_____ / No____ (6 months or older)

- Appetite Test: Passed___ Failed_____

- Does the child have: Severe wasting? Yes_____ / No____

- Breastfeeding problem? Yes_____ / No____
THEN CHECK FOR ANAEMIA:

Does the child have:
- Severe palor/pallor? Yes_____/No_____
- Some palor/pallor? Yes_____/No_____
- No palor/pallor? Yes_____/No_____

CHECK FOR HIV EXPOSURE AND INFECTION:

Determine HIV Exposure/infection status
- HIV exposed? Yes_____/No_____
- Antibody test (≥18mths): POS_____/NEG_____
- DNA PCR TEST (<18mths) POS_____/NEG_____

CHECK THE CHILD’S IMMUNIZATION STATUS:

<table>
<thead>
<tr>
<th>IMMUNIZATION</th>
<th>At Birth</th>
<th>At 6 Weeks</th>
<th>At 10 Weeks</th>
<th>At 14 Weeks</th>
<th>At 6 months</th>
<th>At 9 months</th>
<th>At 18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>bOPV 0</td>
<td>bOPV 1</td>
<td>bOPV 2</td>
<td>bOPV 3</td>
<td>Measles</td>
<td>Measles</td>
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<tr>
<td>dOPV 0</td>
<td>Penta 1</td>
<td>Penta 2</td>
<td>Penta 3</td>
<td>PCV 10 1</td>
<td>Rubella</td>
<td>Rubella</td>
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<tr>
<td>PCV 10 1</td>
<td>PCV 10 2</td>
<td>PCV 10 3</td>
<td>IPV 1</td>
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<tr>
<td>Rota 1</td>
<td>Rota 2</td>
<td>IPV 1</td>
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</table>

CHECK FOR TB DISEASE:

- TB contact? Yes_____/No_____
- Cough of any duration? Yes_____/No_____
- Weight loss or poor weight gain? Yes_____/No_____

ASSESS FOR OTHER CHILDHOOD ILLNESSES:

Eye infection___________ Any other problem___________

CHECK FOR DEVELOPMENTAL MILESTONES AND INTERACTION, COMMUNICATION AND RESPONSIVENESS:

<table>
<thead>
<tr>
<th>Age Cohort</th>
<th>Caregiver Action (Skills)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 months and older</td>
<td>Does the caregiver move baby’s arms or legs or gently stroked the baby?</td>
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<td>Does the caregiver get baby’s attention with a toy or other object?</td>
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<td>Does the caregiver respond to baby’s sounds/gestures to get baby to smile?</td>
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<td>Does the caregiver play with child?</td>
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CHECK THE CHILD’S VITAMIN A & DEWORMING STATUS:

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<tr>
<th>VITAMIN A</th>
<th>DEWORMING</th>
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<tbody>
<tr>
<td>6 mths</td>
<td>12 mths</td>
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<td>36mths</td>
<td>42mths</td>
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<td>48mths</td>
<td>54mths</td>
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<td>60 mths</td>
<td>60 mths</td>
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</table>

CHECK FOR TB DISEASE:

- Persistent fever and/or night sweats for >14days? Yes_____/No_____
- Confirmed TB (Bacteriologically or Clinically) POS_____/NEG_____
- Do Chest x-ray
- Do mantoux test
<table>
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<tr>
<th>TREAT</th>
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<tr>
<td>(Indicate treatment given for each classification, advice given and return date)</td>
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<tr>
<td>(Admit or refer any child who has a danger sign and no other severe classification)</td>
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</tbody>
</table>

| Return for follow-up in_________________________ |

| Advise Caregiver when to return immediately. |
| Give any immunizations or Vitamin A needed today: |

| Feeding advice: |

| Advice on Care for Development: |
MANAGEMENT OF THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

ASK & CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE (Circle all signs once confirmed present).

Has the infant had convulsions? Yes___ / No_____
Is the child not able to feed or breastfeed? Yes___ / No_____
Breathing: Is the baby gasping or not breathing at all when stimulated? Yes___ / No_____
Infant has no movement even when stimulated? Yes___ / No_____
Central Cyanosis?  Yes___ / No_____
Bulging fontanelle? Yes___ / No_____ 
Pus draining from ear?  Yes___ / No_____ 
Umbilicus red? Yes___ / No_____ 
Umbilicus draining pus? Yes___ / No_____

Fever (>37.5°C or feels hot)? Yes___ / No_____
Low body temperature (<35.5°C)? Yes___ / No_____
Skin pustules? Yes___ / No_____
Infant drowsy (lethargic) or unconscious? Yes___ / No_____
Infant has no movement even when stimulated? Yes___ / No_____

ASK & CHECK FOR JAUNDICE: (Circle all signs once confirmed present)

Does the infant have yellow discolouration of the skin?  Yes___ / No_____ 
If yes, for how many days?_________ 
Are the infant’s palms yellow? Yes___ / No_____ 
Are the infant’s soles yellow? Yes___ / No_____ 
Are the infant’s eyes yellow? Yes___ / No_____

ASK & CHECK FOR EYE INFECTION: (Circle all signs once confirmed present)

Is there eye discharge? Yes___ / No_____
If yes, for how long? ________Days 
Eyes draining pus? Yes___ / No_____
Eyes swollen? Yes___ / No_____
Excessive tearing? Yes___ / No_____
White spot on the pupil? Yes___ / No_____ 
Clouding of the cornea and no signs of Measles? Yes___ / No_____ 
Fear of light? Yes___ / No_____ 
Excessive tearing? Yes___ / No_____

ASK & CHECK FOR DIARRHOEA: (Circle all signs once confirmed present)

Does the infant have diarrhoea? Yes___ / No_____
If yes, for how long? ________Days 
Is the infant lethargic or unconscious? Yes___ / No_____
Restless and irritable?  Yes___ / No_____
Is not able to drink?  Yes___ / No_____ 
Not passing urine?  Yes___ / No_____ 

ASK & CHECK FOR HIV EXPOSURE & INFECTION: (Circle all signs once confirmed present)

Is the child HIV Exposed? Yes___ / No_____ 
DNA PCR TEST (<18mths) POS________ NEG________ Unknown________ Check HIV status for all unknown

ASK & CHECK FOR TB EXPOSURE & INFECTION: (Circle all signs once confirmed present)

Ask for history of mother or caregiver or close household contact started TB treatment <2months before delivery of the baby Yes ________ / No_________
Confirm poor weight gain, Yes ________ / No_________
Confirm TB (Bacteriologically OR Clinically) POS________ /NEG________ If Yes, Suspect TB

ASK & CHECK FOR FEEDING PROBLEMS OR LOW WEIGHT: (Circle all signs once confirmed present)

Determine weight for age: Low_______ Not Low_______
Receives other foods or drinks? Yes_______ / No_______
Mouth ulcers? Yes_______ / No_______
Not well attached to breast? Yes_______ / No_______
Low weight for age? Yes_______ / No_______
Thrush (white patches in mouth)? Yes_______ / No_______
Not not sucking effectively? Yes_______ / No_______
Breast-feeds less than 8 times in 24 hours? Yes_______ / No_______

If the infant has no indications for urgent referral to hospital from previous assessment: Proceed with assessment
ASSESS BREASTFEEDING:

Has the infant breastfed in the previous hour? Yes / No

If no, ask mother to put infant to the breast. Observe the breastfeeding for 4 minutes

Infant Positioning:
- Is infants head and body straight? Yes / No
- Is infant facing the mother with nose opposite to the nipple? Yes / No
- Is infant’s body close to the mother’s body? Yes / No
- Is mother supporting infants whole body and not just neck and shoulders? Yes / No

Breast Attachment:
- Is infant’s chin touching breast? Yes / No
- Is infant’s mouth wide open? Yes / No
- Is infant’s lower lip turned outward? Yes / No
- Is more areola above than below the infant’s mouth? Yes / No

Does the infant suckle effectively? Slow, deep sucks, sometimes pausing?

Does the infant have ulcers or white patches in the mouth (thrush)? Yes / No

LOW BIRTH WEIGHT:

Is the infant less than 1 week old? Yes / No

Determine infant’s weight
- Less than 2kg
- Between 2kg and 2.5 kg
- 2.5kg or more

CHECK YOUNG INFANT’S IMMUNIZATION STATUS:

- Circle immunizations needed today
- Tick immunizations that have been given

At Birth
- BCG
- bOPV 0

At 6 Weeks
- bOPV 1
- PCV 10
- Rota

Indicate next return date:
- Immunization
- Growth monitoring

CHECK FOR SPECIAL TREATMENT NEEDS:

Has the mother had within 2 weeks of delivery:
- Fever >38°C?
- Infection treated with antibiotic?
- Membranes ruptured >18 hours before delivery?
- Foul smelling liquor?
- Mother tested VDRL positive?
- Mother tested HIV positive?
- Membranes ruptured >18 hours before delivery?
- Foul smelling liquor?
- Mother tested VDRL positive?
- Mother tested HIV positive?
- Has mother been on ARVs?
- Has mother received infant feeding counselling?
- Has the mother received TB treatment in the last 2 months?

CHECK FOR DEVELOPMENTAL MILESTONES AND INTERACTION, COMMUNICATION AND RESPONSIVENESS

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Normal Limits</th>
<th>Write Age Achieved</th>
<th>Tick if present</th>
<th>Tick if Delayed</th>
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</thead>
<tbody>
<tr>
<td>Social Smile</td>
<td>4-6 weeks</td>
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<tr>
<td>Head Holding/Control</td>
<td>1-3 months</td>
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</table>

Age Cohort | Caregiver Action (Skills) | Yes( ) | No( ) | Recommendations
0 to 6 Months | Does the caregiver move baby’s arms or legs or gently stroke the baby | Counsel the caregiver according to the recommendations for CCD (page 29) |
| | Does the caregiver get baby’s attention with shaker toy or other objects |
| | Does the caregiver talk to baby (Copies baby’s sounds, looks into baby’s eyes and talks softly to baby) |
| | Does the caregiver respond to baby’s sounds and gestures to get baby smile |
| | Does the caregiver think the child is learning? (slow, learns well) |

ASSESS FOR ANY OTHER PROBLEMS:

Eye infection:

Any other problem:
Return for follow-up in______________________________

Advise Caregiver when to return immediately.
Give any immunizations or Vitamin A needed today:

Feeding advice:

Advice on Care for Development:
## Weight For Length From Birth To 2 Years: Boys

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<tr>
<th>Length (cm)</th>
<th>-3 SD</th>
<th>-2 SD</th>
<th>-1 SD</th>
<th>Median</th>
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<th>3 SD</th>
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**Calculating a child’s weight for length**
- Locate the appropriate table for boys or girls.
- Locate the row containing the child’s length in the left column.
- Note where the child’s weight lies with respect to the lengths recorded in this row.
- Look up the column to read the weight for length of the child.
<table>
<thead>
<tr>
<th>Height (cm)</th>
<th>-3 SD</th>
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<th>-1 SD</th>
<th>Median</th>
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</tbody>
</table>

**Calculating a child's weight for height**
- Locate the appropriate table for boys or girls.
- Look down the row containing the child's height in the left column.
- Note where the child's weight lies with respect to the height recorded in this row.
- Look up the column to read the weight for the child of height.
### History of Presenting Illness

For all children presenting to a health facility ask for the following suggestive symptoms:
- Cough, fever, poor weight gain, lethargy or reduced playfulness

Suspect TB if child has **two or more** of these suggestive symptoms

Ask for history of contact with adult/adolescent with chronic cough or TB within the last 2 years

### Physical Examination

- Temperature >37.5 (fever)
- Weight (to confirm poor weight gain, weight loss) - check growth monitoring curve
- Respiratory rate (fast breathing)
- Respiratory system examination - any abnormal findings
- Examine other systems for abnormal signs suggestive of extra-pulmonary TB

### Investigations

- Obtain specimen* for Xpert MTB/RIF (and culture when indicated**)
- Do a chest Xray (where available)
- Do a Mantoux test*** (where available)
- Do a HIV test
- Do other tests to diagnose extra-pulmonary TB where suspected#

### Diagnosis

**Bacteriologically confirmed TB:**
Diagnose if specimen is positive for MTB

**Clinically diagnosed TB:**
- Child has **two or more** of the following suggestive symptoms:
  - Persistent cough, fever, poor weight gain, lethargy
  Plus **two or more** of the following:
  - Positive contact, abnormal respiratory signs, abnormal CXR, positive Mantoux

Note: If the child has clinical signs suggestive of EPTB, refer to EPTB diagnostic table#

### Treatment

**Treat for TB as follows:**
- All children with bacteriologically confirmed TB
- All children with a clinical diagnosis of TB

NB: In children who do not have an Xpert result, or their Xpert result is negative, but they have clinical signs and symptoms suggestive of TB they should be treated for TB

All forms of TB (Except TB meningitis, bone and joint TB): **Treat for 6 months (2 RHZE / 4 RH)**
TB meningitis, bone and joint TB: **Treat for 12 months (2 RHZE/ 10 RH)**

---

*Specimen may include: Expectorated sputum (child > 5 years), induced sputum, nasopharyngeal aspirate and gastric aspirate. **Attempt to obtain specimen in every child**

**Do a culture and DST for the following children:**
1. Rifampicin resistance detected by the Xpert test
2. Refugees and children in contact with anyone who has Drug Resistant TB
3. Those not responding to TB treatment
4. Those with indeterminate Xpert results

***This may include IGRA in facilities where available

#Use IMNCI guidelines to classify severity of disease
# Integrated Management of Newborn and Childhood Illnesses

## Ministry of Health

### Regimen for Treatment of TB in Children

<table>
<thead>
<tr>
<th>TB disease category</th>
<th>Recommended regimen</th>
<th>Intensive phase</th>
<th>Continuation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>All forms of TB (Except TB meningitis and TB of the bones and joints)</td>
<td>2 months RHZE</td>
<td></td>
<td>4 months RH</td>
</tr>
<tr>
<td>TB meningitis, TB of the bones and joints</td>
<td>2 months RHZE</td>
<td></td>
<td>10 months RH</td>
</tr>
<tr>
<td>Drug resistant TB</td>
<td>Refer to a DR TB specialist and inform CTLC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = Rifampicin  H = Isoniazid  Z = Pyrazinamide  E = Ethambutol

For previously treated children who present with symptoms of TB within two years of completing anti-TB treatment, evaluate for drug resistant TB, progressive HIV disease or other chronic lung disease. Make every effort to diagnose the child and manage as per the algorithm for TB diagnosis. Ethambutol is safe and can be used in children in doses not exceeding 25mg/kg/day.

### Dosages for Paediatric TB Treatment (Improved Formulations) Dosages for a Child up to 3.9Kgs

<table>
<thead>
<tr>
<th>Weight band (Kgs)</th>
<th>Number of Tablets</th>
<th>Intensive Phase</th>
<th>Continuation Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RHZ (75/50/150mg)</td>
<td>E(100mg)</td>
<td>RH(75/50mg)</td>
</tr>
<tr>
<td>Less than 2kg</td>
<td>1/4</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
<td>2-2.9</td>
<td>1/2</td>
<td>1/2</td>
<td>2/2</td>
</tr>
<tr>
<td>3-3.9</td>
<td>3/4</td>
<td>3/4</td>
<td>3/4</td>
</tr>
</tbody>
</table>

Ethambutol is not dispersible. Crush it completely before adding to be prepared solution of RHZ during the intensive phase. After giving the child their dose for the day, discard the rest of the solution. Prepare a fresh solution every day.

### Dosages for a Child Between 4 - 25Kgs

<table>
<thead>
<tr>
<th>Weight band (Kgs)</th>
<th>Number of Tablets</th>
<th>Intensive Phase</th>
<th>Continuation Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RHZ (75/50/150mg)</td>
<td>E(100mg)</td>
<td>RH(75/50mg)</td>
</tr>
<tr>
<td>4 - 7.9</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8 - 11.9</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12 - 15.9</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>16 - 24.9</td>
<td>4</td>
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</tbody>
</table>

25kg and above: Use adult dosages and preparations.

### Dosages for a Child Above 25Kgs: Adult Formulation Dosage Table

<table>
<thead>
<tr>
<th>Weight band (Kgs)</th>
<th>Number of tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RHZE (150/75/400/275mg)</td>
</tr>
<tr>
<td>25 - 39.9</td>
<td>2</td>
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<tr>
<td>40 - 54.9</td>
<td>3</td>
</tr>
</tbody>
</table>

55kg and above: 4 tablets daily.

### Pyridoxine (Vitamin B6) Dosing for Children on TB Treatment

<table>
<thead>
<tr>
<th>Weight band (Kgs)</th>
<th>Dose in mg</th>
<th>Number of 25mg tablets</th>
<th>Number of 50mg tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>6.25</td>
<td>Half a tablet 3 TIMES PER WEEK</td>
<td>Not suitable for young infants</td>
</tr>
<tr>
<td>5.0 - 7.9</td>
<td>12.5</td>
<td>Half a tablet daily</td>
<td>Half of 50mg tablet 3 TIMES PER WEEK</td>
</tr>
<tr>
<td>8.0 - 14.9</td>
<td>25</td>
<td>One tablet daily</td>
<td>Half of 50mg tablet daily</td>
</tr>
<tr>
<td>15kg and above</td>
<td>50</td>
<td>Two tablets daily</td>
<td>One 50mg tablet daily</td>
</tr>
</tbody>
</table>

Printed with the support of USAID through the Tuberculosis Accelerated Response and Care (TB ARC) Activity July 2016.
Algorithm for Early Infant Diagnosis

1. Infants and Children < 18 months
   - Establish HIV Exposure:
     - Mother known HIV positive
     - HTS for mothers with unknown HIV status
     - Rapid antibody test on infant/child if mother's HIV status cannot be established

2. HIV Exposed Child, at any age <18 months:
   - Collect a DBS for HIV DNA PCR Test, start CPT at 6 weeks age or above, and start or continue infant prophylaxis
   - Mother / infant antibody test negative: general under-5 care for the well-baby
   - First HIV DNA PCR Test (or repeat HIV DNA PCR if had negative PCR before 6 weeks of age (e.g. birth testing))
   - First HIV DNA PCR Test positive
     - Infant is presumed HIV infected
       - Discontinue infant NVP prophylaxis
       - Start on ART
       - Offer comprehensive care including CPT
     - Child HIV-exposed: Continue HEI follow-up and conduct DNA PCR at 6 months or soonest contact thereafter (or earlier if child develops symptoms suggestive of HIV)
       - Collect DBS for confirmatory DNA PCR and baseline VL
       - Confirmatory HIV DNA PCR positive: Child confirmed HIV-infected, continue ART, comprehensive care including routine under-5 care
       - Confirmatory HIV DNA PCR negative: Continue ART, collect a tie-breaker DBS and send to NHRL
       - DNA PCR Test positive
         - Child HIV-exposed: continue HEI follow-up and conduct DNA PCR at 12 months or soonerest contact thereafter (or earlier if child develops symptoms suggestive of HIV)
         - DNA PCR Test negative
          - Child HIV-exposed: start ART
          - Provide comprehensive care including CPT

ARV Prophylaxis for HIV-Exposed Infants

Table: 49

<table>
<thead>
<tr>
<th>HIV exposed Infant</th>
<th>Infant Prophylaxis</th>
<th>Maternal ART</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 weeks of infant prophylaxis:</td>
<td>- AZT + NVP for 6 weeks, followed by NVP for 6 weeks</td>
<td>If mother not on ART, initiate ART as soon as possible (preferably same day)</td>
</tr>
<tr>
<td>DBS for PCR at first contact, following EID algorithm</td>
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</tr>
</tbody>
</table>

Dosing of ARVs for Infant Prophylaxis from Birth to 12 Weeks of Age

Table: 50

<table>
<thead>
<tr>
<th>Age/Weight</th>
<th>Dosing of NVP (10mg/mL) OD</th>
<th>Dosing of AZT (10mg/mL) BD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 6 weeks</td>
<td>Birth weight &lt; 2000 g: 2 mg/kg per dose</td>
<td>Birth weight 2000-2499 g: 10 mg (1 ml of syrup)</td>
</tr>
<tr>
<td>Birth weight 2500 g: 15 mg (1.5 ml of syrup)</td>
<td>Birth weight ≥ 2500 g: 20 mg (2 ml of syrup)</td>
<td></td>
</tr>
<tr>
<td>&gt; 6 weeks to 12 weeks</td>
<td>Any weight: 10 mg (1 ml of syrup)</td>
<td>60 mg (6 ml of syrup)</td>
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<tr>
<td>&gt; 12 weeks refer to the two tables below</td>
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</tbody>
</table>

NVP Dosing for Infant Prophylaxis beyond 12 Weeks of Age*

Table: 51

<table>
<thead>
<tr>
<th>Age</th>
<th>Dosing of NVP (10mg/mL) Once Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 weeks - 14 weeks</td>
<td>20 mg (2 ml of syrup)</td>
</tr>
<tr>
<td>15 weeks - 6 months</td>
<td>25 mg (2 ml of syrup)</td>
</tr>
<tr>
<td>7 months - 9 months</td>
<td>30 mg (2 ml of syrup)</td>
</tr>
<tr>
<td>10 months - 12 months</td>
<td>40 mg (2 ml of syrup)</td>
</tr>
<tr>
<td>&gt; 12 months</td>
<td>50 mg (2 ml of syrup)</td>
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</tbody>
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AZT Dosing for Infant Prophylaxis beyond 12 Weeks of Age*

Table: 52

<table>
<thead>
<tr>
<th>Weight</th>
<th>Dosing of AZT (10mg/mL) Twice Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0-5.9 kg</td>
<td>6 ml of syrup</td>
</tr>
<tr>
<td>5.0-9.9 kg</td>
<td>9 ml of syrup</td>
</tr>
<tr>
<td>10.0-13.9 kg</td>
<td>12 ml of syrup</td>
</tr>
<tr>
<td>14.0-19.9 kg</td>
<td>15 ml of syrup</td>
</tr>
</tbody>
</table>

*Child presents to facility late and has to be on AZT and NVP beyond 12 weeks of age
Integrated MCH Flow Chart

Registration
- MCH Handbook

Post Natal
- Postnatal Physical Examination
- Vitamin A
- Mother Knows HIV Status
- Cervical Cancer Screening
- Mother on any FP

Child
- Birth Registration
- Immunization up-to-date
- Vitamin A up-to-date
- De-worming in the last 6 months
- Care for child development
- Length/Height
- Weight
- Temperature
- Slept under LLIN in malaria endemic areas
- If Child Exposed
  - NVP
  - Cotrimoxazole
  - DRS
  - TB screen
- If Child HIV Positive
- on ART
- If 6 months EBF
- If > 6 months appropriate complementary feeding

If NO to any

Counsel and take necessary action

To appropriate MCH services

Positive encouragement with appropriate counseling

If Yes to all

Service offered at MCH
1. MCH Handbook
2. ANC - PMTCT
3. PNC
4. FP
5. HIV Testing/ DBS & Psycho-social support
   - adherence
   - disclosure
   - random use
6. Immunization
7. Growth Monitoring
8. Vitamin A supplementation
9. Iron and folate supplementation
10. De-worming
11. Sick child consultation (IMNCI)
12. LLIN provision
13. Nutrition
   Counselling on EBF, Complementary feeding
14. Laboratory Services
   RDT/BS, Blood group, Blood group, Rh Factor, CD4 Viral Load, HIV
   Testing, DBS, VDRL/RPR, Urinalysis, Hb, Pregnancy Diagnostic Test.
15. Pharmacy Services
   IMNCI drugs, Cotrimoxazole, NVP, INH, ART, ITAS

Abbreviations:
- TT: Tetanus Toxoid
- IPTp: Intermittent Preventive Treatment of Malaria in pregnancy
- LLIN: Long Lasting Insecticidal Nets
- NVP: Nevirapine
- DRS: Direct Blood Spot
- EBF: Exclusive Breastfeeding
- FP: Family Planning
- MCH: Maternal, Newborn and Child Health
- ANC: Antenatal Care
- PNC: Postnatal Care
- PMTCT: Prevention of Mother to Child Transmission of HIV
- IMNCI: Integrated Management of Newborn & Childhood Illnesses

EXIT