MINISTRY OF HEALTH
Division of Family Health
Neonatal, Child and Adolescent Health Unit (NCAHU)

INTEGRATED MANAGEMENT OF **NEWBORN & CHILDHOOD ILLNESS (IMNCI)**

A guide for healthcare workers

2018 EDITION

Foreword

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 Illness (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.

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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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TABLE OF CONTENTS

SICK CHILD AGE 2 MONTHS UP TO 5 YEARS

Foreword 1
Acknowledgements 2

Introduction to Integrated Management of Newborn & Childhood Illness (IMNCI) Chart Booklet 3

ASSESS AND CLASSIFY THE SICK CHILD

Assess, Classify and Identify Treatment

Check for General Danger Signs 4
Then Ask About Main Symptoms:
- Does the Child Have Cough Or Difficult Breathing? 4
- Does the Child Have Diarrhoea? 5
- Does the Child Have Fever? 6
  - Classify Malaria 6
  - Classify Measles 6
- Does the Child Have An Ear Problem? 7

Check for Acute Malnutrition & Anaemia 8
Check for HIV Exposure & Infection 9
Check for Child's Developmental Milestones 10
Assess for Interaction, Communication and Responsiveness 11
Check Immunization, Vitamin A & Deworming Status 12
Assess for Other Problems That The Child May Have 12
Assess the Mother's / Caregiver's Health Needs 12

TREAT THE CHILD

Teach the Mother to Give Oral Drugs at Home
- Give Metronidazole 13
- Give an Appropriate Oral Antibiotic 13
- Give an Oral Antimalarial 14
- Counsel The Mother or Caregiver on Management of Malaria for a Sick Child 14
- Give Vitamin A 14
- Give Iron and Folate 14
- Give Zinc Sulphate 14
- Give Paracetamol for Fever or Ear Pain 14

Teach The Mother to Treat Local Infections at Home
- Treat Eye Infection with Tetracycline Eye Ointment 15
- Dry the Ear by Wicking 15
- Treat Mouth Ulcers with Gentian Violet 15
- Treat for Thrush with Nystatin 15
- Soothe the Throat, Relieve the Cough with a Safe Remedy 15

Give These Treatments In Health Facility Only
- Treatment of Very Severe Disease or Severe Pneumonia 16
- Give an Intravenous/ Intramuscular Antibiotic 16
- Treat for Convulsing Now 16
- Treatment of Severe Malaria 16
- Treat the Child for Low Blood Sugar 17
- Treat for Possible Asthma 17

Rehydration Therapy & Feeding for Diarrhoea
- Plan A: Treat Diarrhoea With No Dehydration 18
- Plan B: Treat Diarrhoea at Facility with ORS (Some Dehydration) 18
- Treat Shock 19
- Plan C: Treat Severe Dehydration Quickly 19
- Rehydration Therapy for Diarrhoea in Children With Severe Acute Malnutrition 19
- Give Multivitamin/Mineral supplement for Persistent Diarrhoea 19

HIV Care For Children
- What To Start: Children 20
- ART Treatment in Children With TB 20
- Dosage for Cotrimoxazole Prophylaxis 20
- Paediatric ARVs Dosages 21
- Simplified Weight Band Dosing Schedule for LPV/r 21

GIVE FOLLOW - UP CARE
- Pneumonia 22
- Wheezing 22
- Persistent Diarrhoea 22
- Dysentery 22
- Uncomplicated Malaria 23
- Fever - No Malaria 23
- Eye or Mouth Complications of Measles 23
- Ear Infection 23
- Feeding Problem 24
- Pallor 24
- Malnutrition 24
- HIV Exposed & Infected Children 24

COUNSEL THE MOTHER/CAREGIVER
- Assess Child's Feeding 25
- Conduct The Appetite Test 25
- About Feeding Problems 26
- About Feeding Options: HIV Exposed & Infected 26
- Feeding Recommendations 27
- Recommendations for Care for Child's Development 28
- About Care for Development Problems 29
- When to Return Immediately 30
- Give Good Home Care for Your Child 30
- When to Return for Scheduled Visits 31
- About Mother's Own Health 31

SICK YOUNG INFANT AGE UP TO 2 MONTHS

ASSESS AND CLASSIFY THE SICK YOUNG INFANT

Assess, Classify and Identify Treatment
- Check for Possible Serious Bacterial Infection (PSBI) and Very Severe Disease 32
- Check for Jaundice, Eye Infection 33
- Does the Young Infant Have Signs of Dehydration? 34
- Check for HIV Exposure and Infection 35
- Check for Feeding Problem, Low Weight or Low Birth Weight: 36
- Where Referral is Refused or Not Feasible 37
- Check for Special Treatment Needs 38
- Check the Young Infant 's Immunization Status 38
- Assess Other Problems That the Infant May Have 38
- Assess the Mother's /Caregiver's Health Needs 38
- Routine Care for All Newborns After Delivery 40
- Keep the Young Infant Warm 40

TREAT THE YOUNG INFANT
- Resuscitation, IV/IM/Oral Antibiotics, Low Blood Sugar 41
- Convulsions, Where Referral is Refused or Not Feasible 42
- Teach the Caregiver to Treat Local Infections, Give Oral Drugs At Home Skin Pustules or Umbilical Infections, Thrush or Mouth Ulcers, Eye Infection 43

COUNSEL THE MOTHER
- Teach Correct Positioning and Attachment for Breastfeeding 44
- Teach the Mother to Treat Breast or Nipple Problems 44
- Teach the Mother How to Keep the Young Infant with Low Weight or Low Body Temperature Warm at Home 44
- Advise Mother to Give Home Care for the Young Infant 45
- When to Return to a Health Worker or Health Facility 45

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT
- Local Bacterial Infection 46
- Jaundice, Eye Infection, Diarrhoea 46
- Where Referral is Refused or Not Feasible 46
- Feeding Problem, Low Weight or Low Birth Weight 47
- Thrush or Mouth Ulcers 47

Recording Forms

The Sick Child age 2 Months up to 5 Years 48
Sick Young Infant age up to 2 Months 51
Weight-for-Age BOYS 54
Length/Height-for-Age BOYS 54
Weight-for-Age GIRLS 55
Length/Height-for-Age GIRLS 55
Weight For Length From Birth To 2 Years: Boys 56
Weight For Length From Birth To 2 Years: Girls 56
Weight For Height From 2 - 5 Years: Boys 57
Weight For Height From 2 - 5 Years: Girls 57
Algorithm for Pulmonary TB Diagnosis in Children 58
Regimen For Treatment Of TB In Children 59
HIV Care For Children: EID & Dual Prophylaxis 60
Intergrated MCH Flow Chart 61

INTEGRATED MANAGEMENT OF NEWBORN AND CHILDHOOD ILLNESS (IMNCI) CHART BOOKLET

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 Illness (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 Illness (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

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:

1. 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 serious 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.

2. 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:

Colour	Classification
Pink	= Severe Classification needing admission or pre-referral treatment and referral
Yellow	= A classification needing specific medical treatment and advice
Green	= Not serious and in most cases no drugs are needed. Simple advice on home management given

3. 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.

4. 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/ caregiver 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/ caregiver accordingly.
- If no serious conditions have been found (green classification), advise the mother/caregiver on care of child at home.

5. Counsel

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

6. 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:

CLASSIFY

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

IDENTIFY TREATMENT

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.

URGENT ATTENTION

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print.)
• Any general danger sign.	**VERY SEVERE DISEASE**	• **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**

THEN ASK ABOUT MAIN SYMPTOMS:
Does the child have cough or difficult breathing?

IF YES, ASK
For how long?

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 pg17)
  - If wheezing assess for possible TB disease

CHILD MUST BE CALM

Classify COUGH or DIFFICULT BREATHING

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

SIGNS	CLASSIFY AS	TREATMENT
Any general danger sign **OR** • Oxygen saturation less than 90% • Stridor in calm child. • Central Cyanosis • AVPU = V, P or U	**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 and 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**
Chest indrawing in calm child **OR** • Fast breathing **AND** • No signs of severe pneumonia	**PNEUMONIA**	• **Give Amoxicillin Dispersible Tablet (DT). (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.	**NO PNEUMONIA: COUGH OR COLD**	• 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 (see pg 15). • Follow-up in 5 days if not improving. • Screen for possible TB disease and check for HIV. • Advise mother when to return immediately.

TABLE :1

Note:
**Chest in-drawing is present if the lower chest wall moves in during inspiration.*
***Stridor - a harsh sound heard during inspiration.*
****Wheeze - a musical sound heard during expiration.*
*****AVPU - Alert, responsive to Voice, responsive to Pain, Unresponsive*

ASSESS

DOES THE CHILD HAVE DIARRHOEA?

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

LOOK, LISTEN, FEEL:
- Look at the child's general 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, thirsty?
- Pinch the skin of the abdomen. Does it go back:
  - Very slowly (longer than 2 seconds)?
  - Slowly?
  - Immediately?

Note: Remember to classify all children with diarrhoea for dehydration.

Classify DIARRHOEA

*NB*If referral is not possible, manage the child as described in Integrated Management of Newborn and Childhood Illness and Basic Paediatric Protocols.*
***AVPU** - *Alert, responsive to Voice, responsive to Pain, Unresponsive.*
This is a basic assessment of conciousness.

	SIGNS	CLASSIFY	IDENTIFY TREATMENT
for DEHYDRATION	All four of: • **Weak/absent pulse** • **AVPU* < A** • **Cold hands + Temp gradient** • **Capillary refill > 3 sec** **PLUS** • **sunken eyes and very slow/slow skin pinch.**	**HYPOVOLAEMIC SHOCK FROM DIARRHOEA/ DEHYDRATION**	• **TREAT FOR SHOCK. Give Ringer's Lactate 20mls/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 anaemia (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.**
	Two or more of the following signs: • Lethargic or unconscious **(AVPU* < A).** • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very slowly.	**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 anaemia. OR** • **If child has no other severe classification:** • **If severe 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**
	Two or more of the following signs: • Restless, irritable • Sunken eyes • Drinks eagerly, thirstily • Skin pinch goes back slowly.	**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.
	Not enough signs to classify as some or severe dehydration.	**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.
and if DIARRHOEA 14 DAYS OR MORE	**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.
and if BLOOD IN STOOL	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.**

TABLE :2

DOES THE CHILD HAVE FEVER?

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

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?

LOOK AND FEEL:
- Look or feel for stiff neck.
- Look for runny nose.

Look for signs of MEASLES:
- Generalized rash and one of these: cough, runny nose, or red eyes.
- Look for any other cause of fever•••

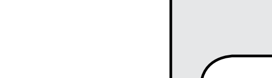
High Malaria risk:
Do a malaria test
- Endemic Zone
- Seasonal Transmission Zone
- Epidemic prone areas

Low malaria risk:
- Do a malaria test if no obvious cause of fever

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

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

NOTE: If you can't test, don't withhold treatment



CLASSIFY FEVER: HIGH OR LOW MALARIA RISK

CLASSIFY — IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
• Any general danger sign or • Stiff neck. **AND** • Confirm malaria with a test.	**VERY SEVERE FEBRILE DISEASE OR SEVERE MALARIA**	• **Give first dose of Artesunate for severe malaria (see pg 16)** • **Give first dose of Ceftriaxone (see pg 16)** • **Treat the child to prevent low blood sugar (see pg 17)** • **Give one dose of paracetamol in clinic for high fever (≥38.5 °C) (see pg 14)** • **Admit or Refer URGENTLY to hospital** • **Screen for possible TB disease and check for HIV.**
• Malaria test POSITIVE**	**UNCOMPLICATED MALARIA**	• **Give Artemether + Lumefantrine (AL) (see pg 16)** • **Give one dose of paracetamol in clinic for high fever (≥38.5 °C) (see pg 14)** • **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) • Assess for other possible causes of fever • Follow up in 3 days if fever persists (see pg 23) • If fever is present every day for more than 7 days assess further or refer (see pg 23) • Screen for possible TB disease and check for HIV • Advise mother when to return immediately.

CLASSIFY MEASLES

Check for Complications of **MEASLES**

If the child has signs of measles now or within the last 3 months
- Look for mouth ulcers, are they deep or extensive?
- Look for pus draining from the eye
- Look for clouding of the cornea

If MEASLES now or within the last 3 months, Classify

SIGNS	CLASSIFY AS	TREATMENT
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.**
• 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 Gentian Violet (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.

TABLE :3

** 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, stridor, diarrhoea, ear infection, and malnutrition - are classified in other tables.*

ASSESS

CLASSIFY

IDENTIFY TREATMENT

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

SIGNS	CLASSIFY AS	TREATMENT
• Tender swelling behind the ear.	**MASTOIDITIS**	• **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.**
• Pus is seen draining from the ear or • Discharge is reported for less than 14 days,or • Ear pain.	**ACUTE EAR INFECTION**	• **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)
• Pus is seen draining from the ear or discharge is reported for 14 days or more.	**CHRONIC EAR INFECTION**	• Dry the ear by wicking (See pg 15) • Check for HIV infection • Follow-up in 5 days (see pg 23)
• No ear pain and No pus seen or reported draining from the ear.	**NO EAR INFECTION**	• No treatment.

TABLE :4

ASSESS

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 (WFHL*) and plot on the IMNCI 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-score or MUAC less than 115mm then:

> Check for any medical complication present:
> - Any general danger signs.
> - Any severe classification.
> - Pneumonia with chest in-drawing.
>
> **If no medical complication present:**
> - Conduct appetite test. (see pg 25)
> - Child is 6 months or older, offer RUTF to eat (see pg 25)
>   Is the child
>   > Not able to finish RUTF portion
>   > Able to finish RUTF portion
> - Child is less than 6 months, assess breast feeding (see pg 43)
>   > does the child have breast feeding problems?
>
> If child has acute Malnutrition and is receiving RUTF, DO NOT give iron because there is already adequate amount of IRON in RUTF.

CLASSIFY NUTRITIONAL STATUS

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.

CLASSIFY ANAEMIA

CLASSIFY / IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
• Oedema of both feet, **OR** • WFH/L less than -3 z scores **OR** • 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 (<6 months)	**SEVERE ACUTE MALNUTRITION WITH COMPLICATIONS FOR CHILDREN**	• **Treat the child to prevent low blood sugar (see pg 17)** • **Keep the child warm** • **Give first dose of Benzyl Penicillin + Gentamicin (see pg 13)** • **Give Vitamin A (see pg 14)** • **Refer URGENTLY to hospital** • **Admit or refer urgently to hospital if child has any other complications (Danger signs: Diarrhoea, Pneumonia, Fever, No appetite, etc)** • **Immunize as per schedule (see pg 12)** • **Screen for possible TB disease and check for HIV (see pg 13)**
• WFH/L less than -3 z scores **OR** • MUAC Less than 11.5 cm **AND** • Able to finish RUTF	**SEVERE MALNUTRITION WITHOUT COMPLICATIONS**	• **Give oral Amoxicillin DT for 5 days** • **Give ready to use therapeutic food for child aged six months and above** • **Screen for possible TB disease and check for HIV** • Follow up in 7 days (see pg 24) • Assess the child's feeding and counsel the mother on the feeding recommendations (see pg 25 & 27) • Immunize as per schedule (see pg 12) • Advise mother when to return immediately.
WFH/L > -3 to < -2 z scores **OR** MUAC 11.5 to 12.4cm	**MODERATE ACUTE MALNUTRITION**	• If growth is faltering for 2 consecutive months, give Vitamin A, assess further or refer to hospital • Assess the child's feeding and counsel the mother on the feeding recommendations (see pg 25 & 26) • Give Albendazole if child is 1 year or older and has not had a dose in the previous 6 months (See pg 12) • If feeding problems, follow up in 14 days (see pg 24) • Screen for possible TB disease and check for HIV • Immunize as per schedule (see pg 12) • Advise mother when to return immediately.
For all age groups: • Static weight or losing weight • -2 to <-1 Z- Score **If age 6 months up to 59 months** **MUAC 12.5 to 13.5cm**	**AT RISK OF ACUTE MALNUTRITION**	• If child is less than 2 years old, and has growth faltering, assess the child's feeding and counsel the mother on feeding according to the feeding recommendations • Give Albendazole if child is 1 year or older and has not had a dose in the previous 6 months (See pg 12) • Follow up in 14 days (see pg 24) • If feeding problem, follow-up in 5 days (see pg 24) • Screen for possible TB disease and check for HIV • Immunize as per schedule (see pg 12) • Advise mother when to return immediately.
WFH/L >- 1 z - scores **OR** MUAC > 13.5 cm	**NO ACUTE MALNUTRITION**	• 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 & 27) • If feeding problem, follow-up in 5 days (see pg 24) • Give Albendazole if child is 12 months and has not had a dose in the previous 6 months (see pg 12) • Immunize as per schedule (see pg 12) • Screen for possible TB disease and check for HIV
• Severe palmar pallor • If HB<5g/dL	**SEVERE ANAEMIA**	• **Treat to prevent low blood sugar (see pg 17)** • **Keep the child warm** • **Admit or refer URGENTLY to hospital** • **Screen for possible TB disease and check for HIV.**
• Some palmar pallor	**ANAEMIA**	• **Assess the child's feeding and counsel the mother on feeding (see pg 25 and 27)** • **If growth is faltering for 2 consecutive months, assess further or refer to hospital** • **Give Iron and Folate. (See pg 14)** • **Give vitamin A (See pg 14)** • **Give Albendazole if child is 1 year or older and has not had a dose in the last 6 months (See pg 12)** • **Screen for TB disease and check for HIV** • **Follow up in 14 days** • **Immunize as per schedule (see pg 12)** • **Advise mother when to return immediately.**
• No Palmar pallor	**NO ANAEMIA**	• If child is less than 2 years old, assess the child's feeding and counsel the mother according to the feeding recommendations (see pg 25 and 27) • If feeding problems, follow up in 5 days (see pg 24) • Give Albendazole if child is 1 year or older and has not had a dose in the last 6 months (see pg 12) • Immunize as per schedule (see pg 12) • Screen for possible TB disease and check for HIV.

TABLE :5

*WFHL 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.

ASSESS

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

CLASSIFY

IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
• **Child < 18 months and DNA PCR test POSITIVE** • **Child ≥ 18 months and Antibody test POSITIVE**	**CONFIRMED HIV INFECTION**	• **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)**
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 EXPOSED**	• Treat, counsel and follow up existing infections • Initiate or continue Cotrimoxazole prophylaxis (see page 20) • Give Zidovudine and Nevirapine prophylaxis as per the national PMTCT guidelines • 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 • Repeat DNA PCR test at 6 months. If negative, repeat DNA PCR test again at 12 months. If negative, repeat antibody test at 18 months (see pg 59 EID algorithm) • Continue with routine care for under 5 clinics • Screen for possible TB at every visit • 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 care of the child (see pg 24)
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	**HIV NEGATIVE**	• Manage presenting conditions according to IMNCI and other recommended national guidelines • Advise the mother about feeding and about her own health

TABLE :6

** 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

CHECK FOR CHILD'S DEVELOPMENTAL MILESTONES

0-2 MONTHS
- Social smile (baby smiles back)
- Baby follows a colourful object dangled before their eyes

2-4 MONTHS
- Holds the head upright
- Follows the object or face with their eyes
- Turns the head or responds in any other way to sound
- Smiles when you speak

4-6 MONTHS
- Rolls over
- Reaches for and grasps objects with hand
- Takes objects to her mouth
- Babbles (makes sounds)

6-9 MONTHS
- Sits without support
- Moves object from one hand to the other
- Repeats syllables (bababa, mamama)
- Plays peek-a-boo (hide and seek)

9-12 MONTHS
- Takes steps with support
- Picks up small object or string with 2 fingers
- Says 2-3 words
- Imitates simple gestures (claps hands, bye)

12 - 18 MONTHS
- Walks without support
- Drinks from a cup
- Says 7-10 words
- Points to some body parts on request

18 - 24 MONTHS
- Kicks a ball
- Builds tower with 3 blocks or small boxes
- Points at pictures on request
- Speaks in short sentences

24 MONTHS AND OLDER
- Jumps
- Undresses and dresses themselves
- Says first name, tells short story
- Interested in playing with other children

CLASSIFY FOR DEVELOPMENTAL MILESTONES

CLASSIFY

IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
Absence of one or more milestones from current age group **OR** • **Absence of one or more milestones from earlier age group** **OR** • **Regression of milestones**	**DEVELOPMENTAL MILESTONE/S DELAY**	• **Counsel the caregiver appropriately** • **Refer for psychomotor evaluation** • **Screen for mothers health needs and risk factors (see pg 12) and other possible causes including Malnutrition, TB disease and hyperthyroidism**
• **Absence of one or more milestones from current age group**	**DEVELOPMENTAL MILESTONE/S ALERT**	• Praise caregiver on milestones achieved • Counsel caregiver on play & communication activities to do at home (refer to Care for Child Development card page 28) • Advise to return for follow up in 30 days (see pg 31) • Screen for possible TB disease and other causes
• **All milestones for the current age group are present**	**DEVELOPMENTAL MILESTONE/S NORMAL**	• Praise caregiver on milestones achieved • Encourage caregiver to give more challenging activities for the next age group (refer to Care for Child Development card page 28) • Advise to continue with follow up consultations

TABLE :7

ASSESS

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 FOR INTERACTION, COMMUNICATION AND RESPONSIVENESS

CLASSIFY / IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
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 play with child • Does not talk, or talks harshly to child • Says child is slow to learn	**POOR INTERACTION AND /OR COMMUNICATION AND RESPONSIVENESS**	**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)**
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	**GOOD INTERACTION AND /OR COMMUNICATION AND RESPONSIVENESS**	• Praise caregiver and encourage to continue age appropriate play and communication (See the counsel the mother card on recommendation for care for Child's Development pg 28.)

TABLE :8

CHECK THE CHILD'S IMMUNIZATION, VITAMIN A & DEWORMING STATUS

IMMUNIZATION

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

TABLE :9

* 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 9 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 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.

VITAMIN A & DEWORMING

Age	Vitamin A	De-worming
6 months	Vitamin A	
12 months	Vitamin A	Deworming
18 months	Vitamin A	Deworming
24 months	Vitamin A	Deworming
30 months	Vitamin A	Deworming
36 months	Vitamin A	Deworming
42 months	Vitamin A	Deworming
48 months	Vitamin A	Deworming
54 months	Vitamin A	Deworming
60 months	Vitamin A	Deworming

TABLE :10

ASSESS THE MOTHER'S / CAREGIVER'S HEALTH NEEDS

- Nutritional status and anaemia, contraception
- Check the mother's HIV status
- 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)

TREAT THE CHILD

(CARRY OUT THE TREATMENT STEPS IDENTIFIED ON THE ASSESS AND CLASSIFY CHART)

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 practise 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.**

FIRST LINE ANTIBIOTIC FOR DYSENTERY: CIPROFLOXACIN

TABLE : 11

	CIPROFLOXACIN Give two times daily for 3 days
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

GIVE METRONIDAZOLE

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

TABLE : 12

METRONIDAZOLE 10 mg/kg /dose, Give 3 times daily for 5 days		
AGE or WEIGHT	**TABLET (200mg)**	**SYRUPS (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

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			Amoxicillin 12hrly (for mild infections) 25mg/ kg/dose		Flucloxacillin 15mg/ kg/dose		Ciprofloxacin 15mg/kg/dose (for 3 days)	Metronidazole 7.5mg/ kg/dose
	12 hrly					8 hrly		12 hrly	8 hrly
	Syrup		Disp.						
	125mg/ 5mls	250mg 5ml	250mg tabs	mls 125mg/5ml	250mg tabs	mls 125mg/5ml	250mg caps or tabs	250mg tabs	200mg tabs
3.0	5mls	2.5	1/2 tab	4	1/4	2.5	1/4		
4.0	7.5mls	3.75	1 tab	4		2.5	1/4	1/4	
5.0	10mls	5		6	1/2	5	1/4	1/4	1/4
6.0	10mls	5		6		5	1/2	1/4	1/4
7.0		7.5		8	3/4	5	1/2	1/2	1/2
8.0		7.5		8		5	1/2	1/2	1/2
9.0		7.5		8		5	1/2	1/2	1/2
10.0		10	2 tabs	12	1	5	1	1/2	1/2
11.0		10		12	1	10	1	1	1/2
12.0		10		12	1	10	1	1	1/2
13.0		12.5		12	1	10	1	1	1/2
14.0		12.5	3 tabs	12	1	10	1	1	1
15.0		12.5		15	1	10	1	1	1
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

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 : 15

AGE or WEIGHT	ARTEMETHER + LUMEFANTRINE TABLETS (Each tablet contains Artemether 20mg + Lumefantrine 120mg)	
WEIGHT	**Age in years**	**Dose of AL to be administered at 0hrs, 8hrs, 24 hrs, 36hrs, 48hrs and 60hrs.**
Below 15Kg	Below 3 years	20mg Artemether and 120mg Lumefantrine
15 - 24Kg	3-7 years	40mg Artemether and 240mg Lumefantrine

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 :16

Body Weight (Kg)	Dihydroartemisinin + piperaquine dose (mg) given daily for 3 days
5 to < 8	20 + 160
8 to <11	30 + 240
11 to < 17	40 + 320

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 :17

AGE	VITAMIN A CAPSULES		
	200 000 IU	**100 000 IU**	**50 000 IU**
Up to 6 months		1/2 capsule	1 capsule
6 months up to 12 months	1/2 capsule	1 capsule	2 capsules
12 months up to 5 years	1 capsule	2 capsules	4 capsules

Give Iron and folate

- Give one dose at 6 mg/Kg of iron daily for 14 days.

NB Avoid iron 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 :18

AGE or WEIGHT	IRON/FOLATE TABLET Ferrous sulfate 200 mg + 250 mcg Folate (60mg elemental iron)	IRON TABLET (200mg)	FOLIC ACID TABLET (5mg)
2 up to 4 months (4 - 6 kg kg)	-	1/4	1/2
4 up to 12 months (6 - 10 kg)	-	1/4	1
12 months up to 3 years (10 - 14 kg)	1/2 tablet	1/2	1
3 years up to 5 years (14 - 19 kg)	1/2 tablet	1/2	1

Give Zinc Sulphate

For a sick young infant or child with diarrhoea:

TABLE :19

AGE	Zinc Sulphate Give once daily for 10 days
	DISPERSIBLE Tablet (20 mg)
0 months up to 6 months	1/2*
6 months up to 5 years	1

*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 :20

PARACETAMOL (10-15mg/kg body weight 6 to 8 hourly)			
AGE or WEIGHT	**TABLET (100 mg)**	**TABLET (500 mg)**	**SYRUP (125mg/5ml)**
2 months up to 3 years (4 - <14kg)	1	1/4	2.5ml
3 years up to 5 years (14 - <19kg)	1½	1/2	7.5ml

TREAT THE CHILD

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.**

Treat Eye Infection with Tetracycline Eye Ointment

Clean both eyes 4 times daily.

- Wash hands.
- Ask the child to close their eyes.
- Use a clean cloth and water to gently wipe away pus.

Then apply tetracycline eye ointment in both eyes 4 times daily.

- Ask the child to look up.
- Squirt small amount of ointment on the inside of the lower lid.
- Wash hands again.

Treat until there is no pus discharge (minimum 5 days).

Do not use other eye ointments or drops, or put anything else in the eye.

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 > 6months).
- 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/caregiver why the drug is given**
- **Determine the appropriate dose for the child weight (or age)**
- **Use 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.

TABLE :21

Weight(kg)	Benzyl Penicillin (50,000 Iu/kg)	Ampicillin or Flucloxacillin (50 mg/kg)	Gentamicin (7.5mg/kg)	Ceftriaxone (50mg/kg)	Metronidazole (7.5 mg/kg)
	IV/IM	IV/IM	IV/IM	IV/IM	IV
	6 hourly	8 Hourly	24 hourly	24 hourly for neonates** Meningitis / very severe sepsis, 50mg/kg BD not to exceed 4g/day	Not to exceed 4 g/day **Age <1m: 12 Hourly** **Age ≥1m: 8 Hourly**
3.0	150,000	150	20	150	20
4.0	200,000	200	30	200	30
5.0	250,000	250	35	250	35
6.0	300,000	300	45	300	45
7.0	350,000	350	50	350	50
8.0	400,000	400	60	400	60
9.0	450,000	450	65	450	65
10.0	500,000	500	75	500	75
11.0	550,000	550	80	550	80
12.0	600,000	600	90	600	90
13.0	650,000	650	95	650	95
14.0	700,000	700	105	700	105
15.0	750,000	750	110	750	110
16.0	800,000	800	120	800	120
17.0	850,000	850	125	850	125
18.0	900,000	900	135	900	135
19.0	950,000	950	140	950	140
20	1,000,000	1000	150	1,000	150
**Not recommended If jaundice or age < 6 days					

Treat for Convulsing now (Child over 1 month)

- *Turn the child to the side and clear the airway*
- *Avoid putting things in his/her mouth while he/she is convulsing*
- *Give oxygen if available and refer*
- *Give 0.5 mg/kg Diazepam injection solution per rectum using a syringe without needle or using a catheter*
- *Check the blood sugar level if possible treat for low blood sugar. (pg 11)*
- *Repeat Diazepam 10 minutes later if still convulsing.*

TREATMENT OF SEVERE MALARIA

Anti-Malarial drug doses and preparation (please check the IV or tablet preparation you are using, they may vary**)

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 :22

Preparing IV/ IM Artesunate	IV	IM
Artesunate powder (mg)	60mg	60mg
Sodium Bicarbonate (mls, 5%)	1ml	1ml
Normal Saline or 5% Dextrose (mls)	5mls	2mls
Artesunate concentration (mg/ml)	10mg/ml	20mg/ml

ARTESUNATE is given IV/IM for a minimum of 24 hours. As soon as the child can eat drink (After 24 hours for artesunate) then change to a full course of artemisinin combination therapy (ACT) typically the 1st line oral anti-malarial, Artemether Lumefantrine.

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 loading dose or over 15 kg for maintenance doses then give the dose into two IM sites- **do not give more than 3mls** per injection site.

ARTEMETHER FOR SEVERE MALARIA

- Administer a loading dose of 3.2mg/kg IM stat then 1.6mg/kg IM daily until the patient is able to tolerate oral medications.
- Thereafter a complete course of AL is given,
- Admit or refer patients with the following:
  - Severe anaemia (HB level of <5g/dl or haematocrit of <15%
  - Two or more convulsions within a 24-hr period.
  - Hyperparasitaemia and are stable: these patients can be treated with AL, DHA-PPQ or oral quinine where ACT is not available. However, they need to be closely monitored.

Malaria treatment doses

TABLE :23

Weight ≤ 20Kg at 3mg/kg /dose and >20Kg at 2.4mg/kg/dose of Artesunate

Weight (kg)	Artesunate, 3mg/kg *At 0, 12, and 24h then daily for max 7 days*			Quinine, loading 20mg/kg then 10mg/kg		Quinine, (10mg/kg)
				IV infusion / IM		
	IV mls of 60mg in 6mls	Dose in mg	im mls of 60mg in 3mls	Loading	8 hrly	200mg tabs Quinine sulphate** 8 hourly
3.0	0.9	9	0.45	60	30	1/4
4.0	1.2	12	0.6	80	40	1/4
5.0	1.5	15	0.8	100	50	1/4
6.0	1.8	18	0.9	120	60	1/2
7.0	2.1	21	1.1	140	70	1/2
8.0	2.4	24	1.2	160	80	1/2
9.0	2.7	27	1.4	180	90	1/2
10.0	3	30	1.5	200	100	3/4
11.0	3.3	33	1.6	220	110	3/4
12.0	3.6	36	1.8	240	120	3/4
13.0	3.9	39	12	260	130	3/4
14.0	4.2	42	2.1	280	140	3/4
15.0	4.5	45	2.3	300	150	1
16.0	4.8	48	2.4	320	160	1
17.0	5.1	51	2.6	340	170	1
18.0	5.4	54	2.7	360	180	1
19.0	5.7	57	2.9	380	190	1 1/4
20.0	6.0	60	3	400	200	1 1/4

***For oral Quinine 200 mg Quinine Sulphate - 200 mg Quinine Hydro-chloride 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 if unavailable, 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.

TABLE :24

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 I 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)

Yes ↓

Severe Asthma if child has any one of these;
Oxygen saturation <90%
Central cyanosis
Inability to drink / breastfeed
AVPU= “V”, “P” or “U” or
Inability talk/ complete sentences
Pulse rate >200 bpm (0-3yrs) and >180 bpm (4-5yrs)

Yes →

Immediate Management
Oxygen
ADMIT
Nebulize 2.5mg salbutamol or 6 puffs of inhaler with spacer and mask
Give every 20 minutes up to 3 doses if needed
Prednisolone 2mg/kg*
Consider ipratropium bromide 250 mcg if poor response**
Antibiotics as for severe pneumonia

No ↓

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)

Yes →

Salbutamol 2 puffs of inhaler (or 2.5mg nebulized) every 20 minutes upto 3 doses if needed oxygen

↓

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 2-5years.
** Repeat every 20 minutes for one hour if needed.

TREAT THE CHILD

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.

REMIND 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.

TABLE :25

Age	Up to 4 months 12 months	4 months up to 12 months	12 months up to 2 years	2 years up to 5 years
WEIGHT	< 6 kg	6 - < 10 kg	10 - < 12 kg	12 - 19 kg
In ml	200 - 400	400 - 700	700 - 900	900 - 1400

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.

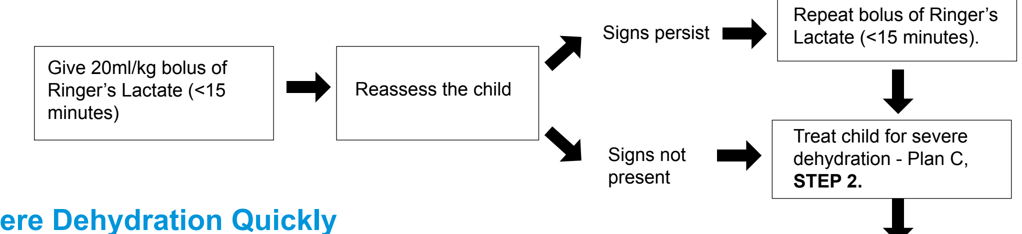
4. **IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT:**
   - Show her how to prepare ORS solution at home.
   - Show her how much ORS to give to finish 4-hour treatment at home.
   - Give her enough ORS sachets to complete rehydration under this plan. Also give her 4 ORS sachets to
   - continue 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 →

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:

AGE	STEP 1 First give 30 ml/kg in:	STEP 2 Then give 70 ml/kg in:
Infants (under 12 months)	1 hour*	5 hours
Children (12 months up to 5 years)	30 minutes*	2 hours 30 minutes

* 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.

NO ↓

Is IV treatment available nearby (within 30 minutes)? — YES →

- **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.

NO ↓

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

NO ↓

Can the child drink?

(YES →)

- **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.

NO ↓

Refer URGENTLY to hospital for IV or NG 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.

Rehydration therapy for diarrhoea in children with Severe 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

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.

Unconscious /IN SHOCK

- Don't give fluids unless the child is in SHOCK
- Treat hypoglycemia
- Keep warm
- Refer URGENTLY

Note: Alternate feeding with fluids hourly

TABLE :26

Give Multivitamin/Mineral supplement for persistent diarrhoea

Give daily for two weeks

Age/Weight	Multivitamin/Mineral Syrup
2 months-6 months (4 - 8 kg)	2.5 ml
6 months-2 years (8 - 12 kg)	5.0 ml
2 years-5 years (12 - 19 kg)	7.5 ml

TREAT THE CHILD
HIV CARE FOR CHILDREN

WHAT TO START: CHILDREN

TABLE :27

AGE/WEIGHT	REGIMEN	REMARKS
<2 weeks	AZT/3TC +NVP	As per 2016 ART guidelines
>2 weeks - <3years	ABC/3TC + LPV/r	Once a child attains 25kg switch from LPV/r to ATV/r
3 years – 14 years	ABC/3TC + EFV	Children with contraindication to EFV can use LPV/r or ATV/r as recommended (see pg 21)
	ABC/3TC + DTG	For children >35kg DTG is preferred instead of EFV
>15 years	TDF/3TC/DTG	Use FDC for better adherence

ART Treatment in children with TB

TABLE :28

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

DOSAGE OF COTRIMOXAZOLE PROPHYLAXIS

TABLE :29

WEIGHT (KG)*	SUSPENSION 240MG PER 5ML	SINGLE STRENGTH TABLET 480MG (SS)	DOUBLE STRENGTH TABLET 960MG (DS)
1-4	2.5ml	¼ SS tab	-
5-8	5ml	½ SS tab	¼ DS tab
9-16	10ml	1 SS tab	½ DS tab
17-30	15ml	2 SS tab	1 DS
>30 (Adults and adolescents)	-	2SS	1DS

***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

TREAT THE CHILD
HIV CARE FOR CHILDREN

PAEDIATRIC ARVs DOSAGES

TABLE :30

WEIGHT RANGE (KG)	FIXED DOSE COMBINATIONS			
	ABACAVIR + LAMIVUDINE	ZIDOVUDINE + LAMIVUDINE	EFAVIRENZ (EVF)	LAMIVUDINE ZIDOVUDINE
	TWICE DAILY	TWICE DAILY	ONCE DAILY	TWICE DAILY
	120 mg ABC +60mg 3TC	60mg ZDV + 30mg 3TC	200mg Tab	200mgs Tab
3 - 5.9	0.5 tab	1 tab	-	-
6 - 9.9	1 tab	1.5 tabs	-	-
10 - 13.9	1 tab	2 tabs	1 tab	1.5 tabs
14 - 19.9	1.5 tabs	2.5 tabs	1.5 tabs	1tab in AM & 0.5 in PM
20 - 24.9	2 tabs	3 tabs	1.5 tabs	1tab in AM & 0.5 in PM
25 - 34.9	300mgs + 150mgs	300+150mgs	2 tabs	1 tab

PAEDIATRIC ARVs DOSAGES - LOPINAVIR/RITONAVIR

TABLE :31

FORMULATION	AGE CATEGORY	RATIONALE
Liquid (80/20mg)	2 weeks - 4 years of age	Easy to swallow for the infant and/or child
Tablets (100/25mg)	5 years and older children	Able to swallow the whole tablets

Refer to Guidelines on Use of Antiretroviral Drugs for Treating and Preventing HIV Infections in Kenya available at http://www.nascop.or.ke

SIMPLIFIED WEIGHT BAND DOSING SCHEDULE FOR LPV/r

TABLE :32

Weight Band (Kg)	LPV/r 80mg/20mg per ml oral liquid		Number of LPV/r 10mg/25 mg Oral tablets	
	AM	PM	AM	PM
3-4.9kg*	1ml	1ml	NR	NR
5-5.9kg	1ml	1ml	NR	NR
6-9.9.kg	1.5ml	1.5ml	NR	NR
10-13.9kg	2ml	2ml	2	2
14-19.9kg	2.5ml	2.5ml	2	2
20-24.9kg	3ml	3ml	2	2
25-29.9kg	NR	NR	3	3
30-34.9kg	NR	NR	3	3
≥35kg	NR	NR	4	4

Substitute LPV/r to ATV/r if above 40kgs
NR= Not Recommended

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:

Ask:

- 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.
- NB: Attention to diet is an essential part of the management of a child with persistent diarrhoea.

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/cargiver 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 less than -3 z-scores or MUAC is less than 11.5 mm or oedema of both feet but NO medical complication and passes the appetite test) counsel the mother and encourage her to continue with appropriate RUTF feeding. Ask mother to return in 7 days.
- If the child has MODERATE ACUTE MALNUTRITION (WFH/L between -3 and -2 z-scores or MUAC between 11.5 and 12.5 mm), advise the mother to continue RUTF. Counsel the mother.

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, weigh 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 defaulter 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 60)
- 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 :33

Plumpy'nut / RUTF	
Body Weight (kg)	**Sachets**
Less than 4 kg	⅛ to ¼
4 - 6.9	¼ to ⅓
7 - 9.9	⅓ to ½
10 - 14.9	½ to ¾
15 - 29	¾ to 1
Over 30 kg	>1

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.**

IF THE CHILD HAS SORE MOUTH OR ULCERS;

- Recommend soft foods that will not burn the mouth such as thick enriched porridge, eggs, mashed potatoes, bananas, pumpkin or avocado.
- Chop foods finely.
- Avoid salty, spicy; acidic foods that may irritate the child.
- Give cold nutritious drinks-they'll not make the child sick or sicker.

HYGIENE DURING FOOD PREPARATION:
Ensure;

- **Clean hands**
- **Clean food**
- **Clean utensils**
- **Clean storage**

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)

COUNSEL THE CAREGIVER

Feeding Recommendations

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. This is especially important for infants of HIV-positive mothers. Mixed feeding increases the risk of HIV mother-to-child transmission when compared to exclusive breast feeding.

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 3 to 4 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	NEWBORN, BIRTH UP TO 2 MONTHS	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
Your Unborn Child Learns in Utero	Your baby learns from birth					
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.	**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.	**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.
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.	**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.

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

COUNSEL THE CAREGIVER
About Care for Development Problems

- **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.

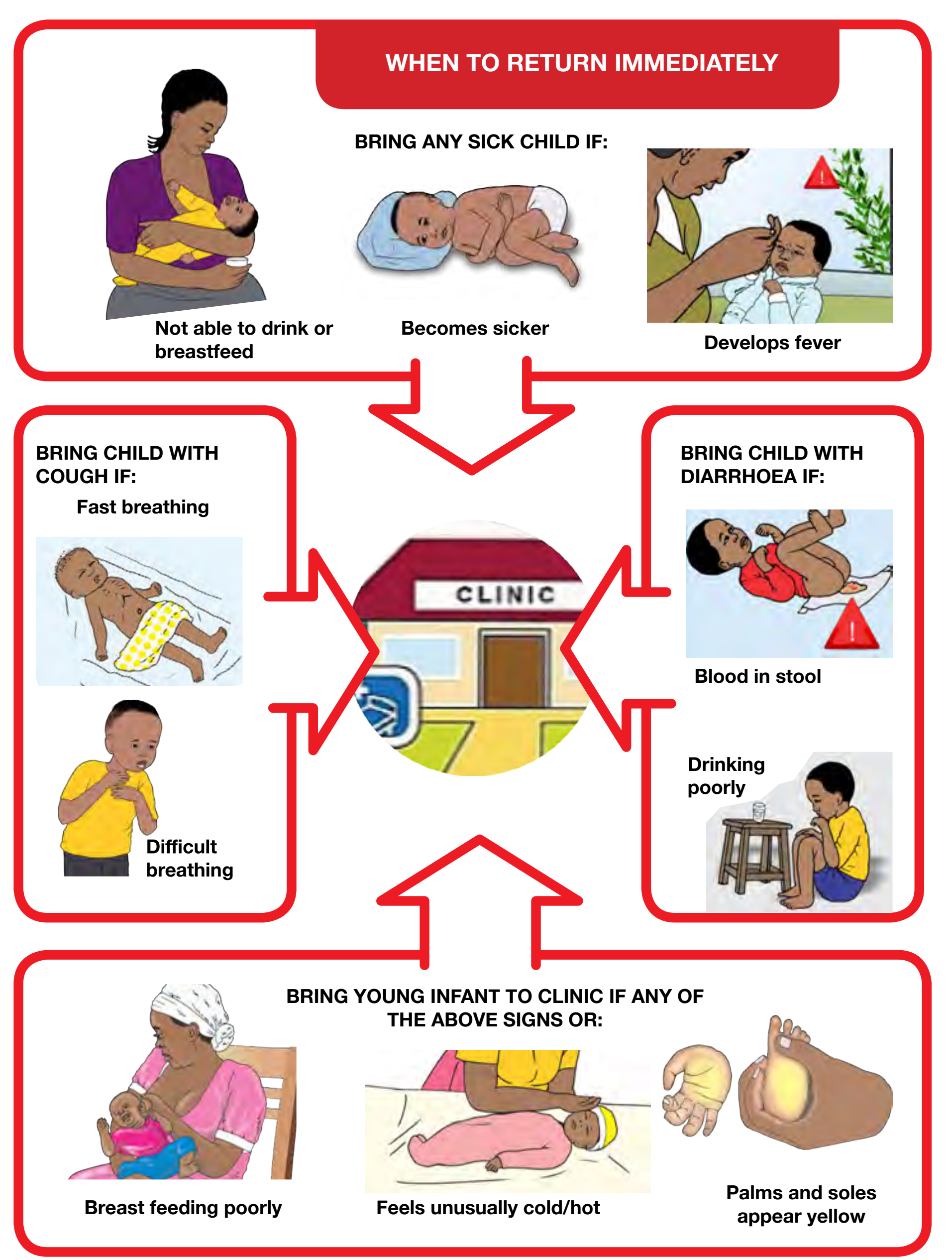
- **If the Caregiver has no toys for the child to play with, counsel the Caregiver to:**
  - Use any household objects that are clean and safe.
  - Make simple toys.
  - Play with the child, as the child will learn by playing with her/him and other people.

- **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.

COUNSEL THE CAREGIVER



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 CAREGIVER

When To Return for Scheduled Visits

TABLE :34

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

About Mother's 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 5TTs
- 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 AND CLASSIFY
THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

ASSESS

ASK 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 (PSBI) 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 even 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 severe palmor pallor
- Look for central cyanosis
- Check for oxygen saturation using 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?*

} YOUNG INFANT MUST BE CALM

Classify ALL YOUNG INFANTS

CLASSIFY

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

IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print.)
Any of the following signs: • Respiratory rate less than 20 breaths per minute **or** • Convulsions or convulsing now **or** • Not able to feed or breastfeed **or** • Oxygen saturation <90% **or** • Fast breathing (more than 60 breaths per minute) **or** • Severe chest indrawing **or** • Grunting or wheezing **or** • Nasal flaring **or** • Bulging anterior fontanelle **or** • Pus draining from the ear **or** • Fever (37.5 °C* or above or feels hot) **or** • very low body temperature (less than 35.5 °C* or Feels cold) **or** • Movement only when stimulated **or** • No movements at all. • Blood in stool. • Severe abdominal distension • High pitched cry • Severe palmor pallor	**POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE**	• **Immediately resuscitate using a bag and mask if the baby:** (see pg 41) - Is gasping or not breathing - Has a respiratory rate less than 20 breaths per minute • **If convulsing now, give Phenobarbitone (See pg 42).** • **If oxygen saturation is less than 90%, start oxygen therapy and refer or admit** • **Give first does of Benzyl Penicillin and Gentamicin (See pg 13).** • **Treat to prevent low blood sugar (see pg 41)** • **Screen for possible TB disease and check for HIV** • **If severe palmor pallor, Refer for URGENT blood transfusion** • **Admit or refer URGENTLY to hospital**** • **Advise mother how to keep the infant warm on the way to the hospital. (see pg 40)** • **IF REFERRAL NOT POSSIBLE (see pg 37)**
• Red umbilicus or draining pus or • Skin pustules. **And non of the signs of very severe disease**	**LOCAL BACTERIAL INFECTION**	• **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.**
Temperature between 35.5 °C to 36.4 °C	**LOW BODY TEMPERATURE**	• **Keep the young infant warm and reassess after 1 hour. See page 39 on Kangaroo Mother Care (KMC) and Skin to Skin Care** • **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**
None of the signs of Very Severe Disease or Local Bacterial Infection	**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.

TABLE :35

*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

CLASSIFY

IDENTIFY TREATMENT

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 infants palms and soles. Are they yellow?

CLASSIFY JAUNDICE

SIGNS	CLASSIFY AS	TREATMENT
• 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	**SEVERE JAUNDICE**	• **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**
• Yellowness appearing after 24 hours of age • Yellowness in the eyes & skin • Palms and Soles NOT yellow	**JAUNDICE**	• 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) • If young infant older than 14 days refer to hospital for assessment. • Follow up in 1 day (see pg 46)
No jaundice	**NO JAUNDICE**	• Advise mother to give home care for the young infant. (see pg 45)

TABLE :36

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

SIGNS	CLASSIFY AS	TREATMENT
CROSSED EYES	**SQUINT**	• Admit or refer immediately to the hospital or appropriate unit within the facility
White spot on the pupil and crossed eyes	**CONGENITAL CANCER OF THE EYE**	
Clouding of the cornea and no signs of measles, fear of light and exessive tearing.	**CONGENITAL GLAUCOMA**	
Bilateral white spots on the pupil area.	**CONGENITAL CATARACT**	
Eyes swollen or draining pus	**SEVERE EYE INFECTION**	• Give first dose of Benzyl Penicillin and Gentamicin (see pg 41) • Apply first dose of Tetracycline Eye Ointment (see pg 43) • Treat to prevent low blood sugar (see pg 41) • Admit or Refer URGENTLY to hospital/specialized unit. • Advise mother how to keep infant warm on the way to hospital (see pg 40) • Treat the mother and partner.
Eyes are red or have a discharge	**EYE INFECTION**	• Apply first dose of Tetracycline Eye Ointment (see pg 43) • Teach mother to treat eye infection at home (see pg 43) • Follow up in two days (see pg 46)
No signs to classify for congenital condition or eye infection	**CONGENITAL CONDITION or EYE INFECTION UNLIKELY**	• Advise mother to give home care for the child (see pg 45)

TABLE :37

ASSESS | CLASSIFY | IDENTIFY TREATMENT

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 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?
- **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 breastfeed**
- **Assess the young infant's urine output**

Classify for DEHYDRATION

SIGNS	CLASSIFY AS	TREATMENT
Two of the following signs: • Movement only when stimulated or no movement at all. • Sunken eyes • Skin pinch goes back very slowly • Child not passing urine. • Child not able to feed.	**SEVERE DEHYDRATION**	**If infant has no other severe classification:** • Give fluid for severe dehydration (Plan C) (see pg 19) **OR** **If infant also has another severe classification:** • **Admit/Refer URGENTLY to hospital with mother or caregiver giving frequent sips of ORS on the way (see pg 18)** • **Advise mother to continue breast feeding.** • **If child is not passing urine admit/refer urgently to hospital.** • **If child is not able to feed, admit/refer urgently to hospital.**

Two of the following signs:
• Restless and irritable
• Sunken eyes
• Skin pinch goes back slowly.
	SOME 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**

Not enough signs to classify as some or severe dehydration.	**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 14) • Advise mother when to return immediately • Follow-up in 2 days if not improving.

TABLE :38

ASSESS | CLASSIFY | IDENTIFY TREATMENT

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

SIGNS	CLASSIFY AS	TREATMENT
• POSITIVE DNA PCR test in young infant	**CONFIRMED HIV INFECTION**	• **Initiate ART, counsel and follow up existing infections** • **Initiate Cotrimoxazole prophylaxis (see page 20)** • **Assess child's feeding and provide appropriate counseling to the mother/ caregiver (see pg 25 and 26)** • **Advise the mother on home care (see pg 14)** • **Offer routine follow up for growth, nutrition and development** • **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 disease throughout IPT** • **Immunize as per schedule (see pg 38)** • **Follow up monthly as per the national ART guidelines and offer compre-hensive management of HIV. Refer to appropriate national ART guidelines for comprehensive HIV care of the child (see pg 24)**
• **Mother HIV positive and nega-tive DNA PCR in young infant.** **OR** • **Mother HIV positive, young infant not yet tested.** **OR** • **Positive antibody test in young infant whose mother is not available**	**HIV EXPOSED**	• Treat, counsel and follow up existing infections • Initiate Cotrimoxazole prophylaxis (see page 20) • Start or continue PMTCT* prophylaxis as per the national recommendations • Assess child's feeding and provide appropriate counseling to the mother/care-giver (see pg 25 and 26) • Advise the mother on home care (see pg 45) • Offer routine follow up for growth, nutrition and development • Screen for possible TB disease at every visit • Immunize as per schedule (see pg 38) • Follow up monthly as per the national ART guidelines and offer comprehensive management of HIV. Refer to appropriate national ART guidelines for compre-hensive care of the child (see pg 24)
• Mother's antibody test is NEGATIVE	**HIV NEGATIVE**	• Manage presenting conditions according to IMNCI and other recommended national guidelines • Advise the mother about feeding and about her own health (see pg 31)

TABLE :39

*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

ASSESS | CLASSIFY | IDENTIFY TREATMENT

CHECK FOR FEEDING PROBLEM LOW WEIGHT OR LOW BIRTH WEIGHT:

IF YES ASK:

- Is the infant breast-fed?
  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

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.

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

ASSESS BREAST FEEDING:

- Has the infant breast-fed in the previous hour?

- If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
- (If the infant was fed during the last hour, ask the mother if she can wait and tell you when the infant is willing to feed again.)

TO CHECK 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 suckling effectively (that is, slow deep sucks, sometimes pausing)?
  - not suckling effectively
  - suckling effectively

Clear a blocked nose if it interferes with breast feeding.

Classify FEEDING

SIGNS	CLASSIFY AS	TREATMENT
• 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	**FEEDING PROBLEM OR LOW WEIGHT**	• Advise the mother to breastfeed as often and for as long as the infant wants, day and night. - If not well attached or not suckling effectively, teach 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. • If receiving other foods or drinks, counsel mother or caregiver. Refer to current MIYCN policy and breast milk substitute regulation and control act 2012. • If an HIV positive mother has chosen not to breastfeed, give feeding advice (see pg 26). Give Vitamin A (see pg 14) • If thrush or mouth ulcers, teach the mother to treat thrush and mouth ulcers at home (see pg 43) • If mother is positive for HIV, follow actions on recommendations from Nutrition Unit • If mother is not tested for HIV, test. • Advise mother to give home care for the young infant (see pg 45) • Follow any feeding problem, thrush or mouth ulcers in 2 days (see pg 47) • Screen for possible TB disease during routine visits. • Follow-up low weight for age in 14 days (see pg 45) • Advise the mother to keep infant warm (see pg 39 and 40) • If TB is not diagnosed, treatment as per regimen for TB treatment (Refer to pg 59)
Not low weight for age and no other signs of inadequate feeding.	**NO FEEDING PROBLEM OR LOW WEIGHT**	• Advise mother to give home care for the young infant (see pg 45) • Praise the mother for feeding the infant well. • Advise the mother to keep infant warm (see pg 39 and 40) • Screen for possible TB disease during routine visits.

and if baby less than one week

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

SIGNS	CLASSIFY AS	TREATMENT
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.

TABLE :40

Children with above positive 2 SD refer for further assessment and management

WHERE REFERRAL IS REFUSED OR NOT FEASIBLE:

For a Sick Young Infant WITH POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

FURTHER CLASSIFY THE SICK YOUNG INFANT:

CLASSIFY

IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
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?

CLASSIFY | IDENTIFY TREATMENT

SIGNS	CLASSIFY AS	TREATMENT
• Baby<1 day old and membranes ruptured >18 hours before delivery **OR** • Foul smelling liquor **OR** • Mother being treated with antibiotics for infection **OR** • Mother has fever >38°C	**RISK OF BACTERIAL INFECTION**	• **Give baby 1st dose of Benzyl Penicillin and Gentamicin. (see pg 41)** • **Treat to prevent low blood sugar (see page 41)** • **Keep warm (see pg 39 and 40)** • **Admit or refer urgently to hospital**
• Mother tested VDRL positive	**RISK OF CONGENITAL SYPHILIS**	• **Give baby single dose of benzathine penicillin (see pg 42)** • **Ensure mother and partner are treated** • **Follow up in 14 days (see pg 45)**
• History of mother or caregiver or close household contact started TB treatment <2 months before delivery of the baby	**RISK OF TUBERCULOSIS**	• **If child has not been given BCG; withhold BCG** • **Screen for possible TB disease** • **If TB is ruled out, give Isoniazid prophylaxis (IPT) for 6 months. Screen for possible TB during treatment.** • **Upon completion of Isoniazid prophylaxis wait for 2 weeks then give BCG** • **If child is found to have TB disease, give full course of TB treatment (see pg 59)**
• Infants who are not breast fed due to the death or sickness of the mother e.g. Orphans	**SPECIAL FEEDING CIRCUMSTANCES**	• **Counsel about feeding (see pg 26)** • **Identify concerns of caregiver and family about feeding** • **Advise the caregiver/s how to feed and keep the low weight infant warm at home (see pg 44)** • **If thrush, teach the caregiver/s to treat thrush at home (see pg 45)** • **Advise caregiver/s to give home care for the young infant.** • **Follow-up any feeding problem or thrush in 2 days (see pg 47)** • **Follow-up low weight for age in 14 days (see pg 47)** • **Once the sick mother recovers, resume breast feeding.**

TABLE :41

CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS

IMMUNIZATION SCHEDULE:

TABLE :42

Age	Vaccine				
Birth*	BCG	bOPV-0			
6 Weeks		bOPV -1	DPT / HepB / Hib -1	PCV 10-1	ROTA 1

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 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
  - o Stable babies weighing between **1800g** and **2000g** can be started on KMC soon after birth
  - o 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 the father or 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.

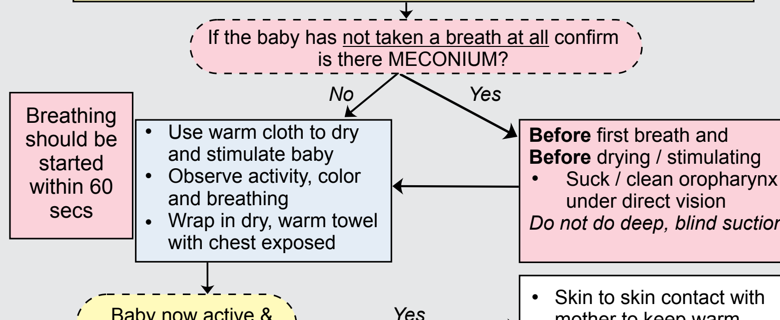
TREAT THE YOUNG INFANT

Newborn Resuscitation

For trained health workers - Be prepared

Note for all newborns:
- ✓ Practice delayed cord clamping to prevent early infant anaemia
- ✓ 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



No

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

Is baby breathing? — Yes →
- Keep warm
- Count rate of breathing and heart rate
- Give oxygen if continued respiratory distress

B - breathing

Poor or NO breathing / gasping ↓

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

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

C - circulation

Is heart rate > 60 bpm? — Yes ↑ / 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

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 to prevent Low Blood Sugar

- **If infant is able to breastfeed:** Ask the mother to breastfeed the infant
- **If not able to breastfeed but is able to swallow:** Give 20-50 ml (10ml/kg) expressed breast milk and if not available, give 20-50 ml (10ml/kg) sugar water before referral.
- **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 20-50ml (10ml/mg) expressed breast milk or sugar water by NG tube.
- **If low blood sugar* is suspected:** Give 10% glucose 10ml/kg by nasogastric tube give the same amount intravenously. *(To make 10% glucose mix one part of 50% glucose with 4 parts water injection)*

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

TABLE :43

Give recommended dose of Intravenous / intramuscular antibiotics

Intravenous / intramuscular antibiotics aged ≤ 7days

Weight (kg)	Benzyl Penicillin (50,000iu/kg)	Ampicillin/ Flucloxacillin (50mg/kg)	Gentamicin (3mg/kg<2kg, 5mg/kg≥2kg)	Ceftriaxone (50mg/kg)	Metronidazole (7.5m/kg)
	IV / IM	IV / IM	IV / IM	IV / IM	IV
	12 hrly	12 hrly	24 hrly	24 hrly	12 hrly
1.00	50,000	50	3	50	7.5
1.25	75,000	60	4	62.5	10
1.50	75,000	75	5	75	12.5
1.75	100,000	85	6	75	12.5
2.00	100,000	100	10	150	15
2.50	150,000	125	12.5	125	20
3.00	150,000	150	15	150	22.5
4.00	200,000	200	20	200	30

Referral is the best option for a young infant with SEVERE DISEASE.

Give an appropriate antibiotic for LOCAL BACTERIAL INFECTION:

TABLE :44

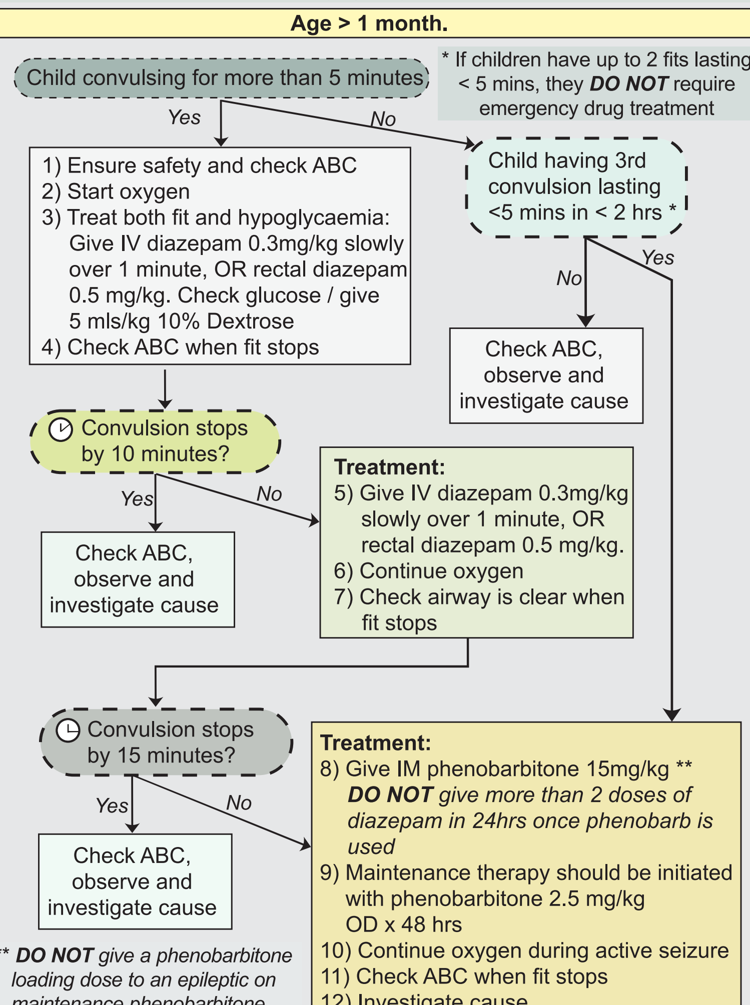
Oral antibiotics aged <7days

	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

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.



WHERE REFERRAL IS REFUSED OR NOT FEASIBLE: FOR A 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***

TABLE :45

	GENTAMICIN (Strength 40 mg/ml)	**GENTAMICIN** (Strength 20 mg/ml)	**AMPICILLIN** To a vial of 250 mg, add 1.3 ml sterile water (Strength 250 mg/1.5 ml)
WEIGHT	**Volume per dose**	**Volume per dose**	**Volume per dose**
1.5 - 2.4 kg	0.2 ml	0.4 ml	0.8 ml
2.5 - 3.9 kg	0.4 ml	0.8 ml	1.2 ml
4.0 - 5.9 kg	0.6 ml	1.2 ml	1.5 ml

*Countries may decide to treat with IM gentamicin for 2 days with a mandatory follow-up visit on day 4

Give Oral Amoxicillin

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

TABLE :46

	AMOXICILLIN 75 to 100 mg/kg/day divided into 2 doses . **Give twice daily for 7 days**		
WEIGHT	**Dispersible tablet** (250 mg) Per dose	**Dispersible tablet** (125 mg) per dose	**Syrup** (125 mg in 5 ml) Per dose
1.5 - 2.4 kg	1/2 tablet	1 tablet	5 ml
2.5 - 3.9 kg	1/2 tablet	1 tablet	5 ml
4.0 - 5.9 kg	1 tablet	2 tablets	10 ml

- **For a child whose mother has syphilis, give baby Benzathine penicillin STAT dose at 50,000 iu/kg**
- **For a sick young infant with diarrhoea, refer to pg 14 on Zinc Sulphate and pg 18 on ORS (Rehydration Therapy)**
- **On feeding for Diarrhoea refer to pg 18 and 19**

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.

- **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).**

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.

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

COUNSEL THE MOTHER

ADVISE MOTHER TO GIVE HOME CARE FOR THE YOUNG INFANT ON THE FOLLOWING:

- **FOOD**
- **FLUIDS**
- **CORD CARE**
- **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.

(FOOD / FLUIDS:)

- Breastfeed frequently, as often and for as long as the infant wants, day or night, during sickness and health.
- If the young infant is not being fed as described on pg. 26, counsel the mother accordingly.

ADVISE MOTHER ON UMBILICAL CORD CARE:

- Wash hands with soap and running water.
- Open the container of 7.1% Chlorhexidine Digluconate.
- Apply the 7.1% Chlorhexidine Digluconate to the base of the umbilical cord, cord stump, and tip of the cord. Ensure the entire cord is covered with 7.1% Chlorhexidine Digluconate.
- Spread the gel using your index finger
- Wash hands after application.
- Do not clean off the 7.1% Chlorhexidine Digluconate from the umbilicus. after application. Do not wrap or bind the umbilical area after 7.1% Chlorhexidine Digluconate application. Do not apply anything else.
- Continue application once daily up to the seventh day or until the umbilical cord falls whichever happens first.

TABLE :48

When to return to a health worker or health facility

Follow up visit

If the infant has:	Return for follow-up in:
• Jaundice	1 day
• Local bacteria infection • Some dehydration • No dehydration, if not improving • Eye infection • Feeding problem • Thrush or mouth ulcers	2 days
• Low weight or low birth weight • Risk of congenital syphilis • Risk of tuberculosis (after completion of IPT) • Poor interaction and/or communication and responsiveness	14 days
• Developmental milestone alert	30 days
• Confirmed HIV infection • HIV exposed	Monthly

When to return immediately

Advise the mother to return immediately if the young infant has any of these signs
Breast feeding or drinking poorly Becomes sicker Develops a fever Fast breathing Difficult breathing Yellow eyes, palms and soles if infant has jaundice Blood in stool

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.

RECORDING FORM

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 Visit? ______________ Follow up Visit? ______________________

ASSESS THE CHILD (TICK ALL SIGNS IF PRESENT)	CLASSIFY
CHECK FOR GENERAL DANGER SIGNS: NOT ABLE TO DRINK OR BREAST FEED Yes___ / No___ HISTORY OF CONVULSIONS Yes___ / No___ LETHARGIC OR UNCONSCIOUS Yes___ / No___ VOMITS EVERYTHING Yes___ / No___ CONVULSING NOW Yes___ / No___	General danger signs present? Yes_____No______ Remember to use danger signs when selecting the classifications
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___ Wheeze? Yes___ / No___ Central Cyanosis? Yes___ / No___	
DOES THE CHILD HAVE DIARRHOEA? Yes___ / No___ For how long? _______days Is there blood in the stools? Yes___ / No___ **Look for signs of shock** Weak /Absent Pulse? Yes___ / No___ AVPU <A? Yes___ / No___ Cold hands+ Temp <35.5ºC Yes___ / No___ Capillary refill >3 seconds? Yes___ / No___ **Look at the child's general condition: Is the child:** Lethargic or unconscious (AVPU <A)? Yes___ / No___ Does the child have sunken eyes? Yes___ / No___ Not able to drink or drinking poorly? Yes___ / No___ Restless or irritable? Yes___ / No___ Does the skin pinch go back: Very slowly (>2 secs) / slowly / immediately Drinking eagerly or thirstily? 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___ Has the child visited a high malaria risk area in the last 1 month? Yes___ / No___ **Decide Malaria risk:** High Malaria risk Yes___ / No___ Low Malaria risk Yes___ / No___ Malaria Test Results : Positve______ Negative______ Are the following signs present: Stiff neck? Yes___ / No___ Runny nose? Yes___ / No___ Generalized rash? Yes___ / No___ A cough or red eyes? Yes___ / No___ **If the child has signs of measles now or within the last 3 months? Check for the following:** Mouth ulcers? Yes___ / No___ Check if deep or extensive Pus draining from the eye? Yes___ / No___ Clouding of cornea? Yes___ / No___	
DOES THE CHILD HAVE AN EAR PROBLEM? Yes___ / No___ For how long? _____Days Is there pain? Yes____ / No___ Is there discharge? Yes____/No____ Is pus draining from ear? Yes____/No____ Tender swelling behind ear? Yes___/No___	
CHECK FOR ACUTE MALNUTRITION:	
Check weight: Weight for age: Very low/ Not very low Is there growth faltering? Yes______/No______ Dertermine MUAC______cm Determine Z Score for WFH/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______	

RECORDING FORM

RECORDING FORM

THEN CHECK FOR ANAEMIA:

Does the child have: Severe palmor pallor? Yes______/No______ Some palmor pallor? Yes______/No______ No palmor 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_____

Severe Pneumonia? Yes______/No______ Severe sepsis? Yes______/No______ Oral Candidiasis / thrush? Yes______/No______ Other AIDS defining conditions ? Yes______/No______ TB Contact? Yes______/No______

CHECK THE CHILD'S IMMUNIZATION STATUS:

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

IMMUNIZATION						
At Birth	**At 6 Weeks**	**At 10 Weeks**	**At 14 Weeks**	**At 6 months**	**At 9 months**	**At 18 months**
BCG	bOPV 1	bOPV 2	bOPV3	Measles Rubella (only in the event of measles rubella outbreak or HEI	Measles Rubella	Measles Rubella
bOPV 0	Penta 1	Penta 2	Penta 3		Yellow fever	
	PCV 10 1	PCV 10 2	PCV 10 3			
	Rota 1	Rota 2	IPV 1			

Indicate next return date:

Immunization: ___________

Growth monitoring__________

CHECK THE CHILD'S VITAMIN A & DEWORMING STATUS:

- **Circle Vitamin A supplements and deworming needed today**
- **Tick Vitamin A supplements and deworming that have been given**

VITAMIN A					DEWORMING			
6 mths	12 mths	18mths	24mths	30mths	12 mths	18mths	24mths	30mths
36mths	42mths	48mths	54mths	60 mths	36mths	42mths	48mths	54mths
					60 mths			

Indicate next return date:

Vitamin A ___________

Deworming ___________

Growth monitoring__________

CHECK FOR DEVELOPMENTAL MILESTONES AND INTERACTION, COMMUNICATION AND RESPONSIVENESS

Assess for the following milestones	Normal Limits	Write Age Achieved	Tick if present	Tick If Delayed
Head Holding/ Control	1-3 months			
Turns towards the origin of sound	2-3 months			
Extend hand to grasp a toy	2-3 months			
Sitting	5-9 months			
Standing	7- 13 months			
Walking	12- 13 months			

Age Cohort	Caregiver Action (Skills)	Yes(√)	No(X)	Recommendations
2 months and older	Does the caregiver move baby's arms or legs or gently strokes 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 child			
	Does the caregiver respond to baby's sounds/gestures to get baby smile?			
	Does the caregiver play with child?			

Indicate next return date:

Developmental Milestones _______________

Stimulation _______________

CHECK FOR TB DISEASE:

TB contact? Yes____ No____

Cough of any duration? Yes____ No____

Weight loss or poor weight gain? Yes____ No____

Persistent fever and/or night sweats for >14days? Yes____ No____

Fast breathing Yes____ No____

Chest in drawing Yes____ No____

Confirm TB (Bacteriologically or Clinically) POS________ /NEG________

Do Chest x-ray

Do mantoux test

ASSESS FOR OTHER CHILDHOOD ILLNESSES:

Any other problem____

RECORDING FORM

TREAT

(Indicate treatment given for each classification, advice given and return date)
(Admit or refer any child who has a danger sign and no other severe classification)

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:

RECORDING FORM

MANAGEMENT OF THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

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 Visit? ____________________ Follow up Visit?______________________

ASSESS THE INFANT (TICK ALL SIGNS IF PRESENT) — **CLASSIFY**

ASK & CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE

Has the infant had convulsions? Yes___ /No_____ Is the child not able to feed or breastfeed? Yes___ /No_____ Fast breathing (>60 breaths per minute)? Yes___ /No_____ Central Cyanosis? Yes___ /No_____

Breathing: Is the baby gapsing or not breathing at all when stimulated? Yes___ /No_____ Breath counts per minute? __________________ Infant has no movement even when stimulated? Yes___ /No_____ Fever (>37.5°C or feels hot)? Yes___ /No_____

Severe chest indrawing? Yes___ /No_____ Grunting? Yes___ /No_____ Wheezing? Yes___ /No_____ Nasal flaring? Yes___ /No_____ Infant drowsy (lethargic) or unconscious? Yes___ /No_____ Low body temperature(<35.5°C)? Yes___ /No_____

Bulging fontanelle? Yes___ /No_____ Pus draning from ear? Yes___ /No_____ Umbilicus red? Yes___ /No_____ Umbilicus draining pus? Yes___ /No_____ Skin pustules? Yes___ /No_____

Is there blood in stool? Yes___ /No_____ Severe abdominal distension? Yes___ /No_____ High-pitched cry? Yes___ /No_____ Severe Palmor Pallor? Yes___ /No_____

ASK & CHECK FOR JAUNDICE:

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

ASK & CHECK FOR EYE INFECTION:

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_____ Crossed eyes? Yes___ /No_____ Clouding of the cornea and no signs of Measles? Yes___ /No_____ Fear of light? Yes___ /No_____

ASK & CHECK FOR DIARRHOEA AND SIGNS OF DEHYDRATION:

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_____ Vomiting ? Yes___ /No_____

Does the infant have sunken eyes? Yes___ /No_____ Pinch the skin of the abdomen, does it go back: Very slowly (>2secs) / Slowly / Immediately Is not able to breastfeed? Yes___ /No_____ Not passing urine? Yes___ /No_____

ASK & CHECK FOR HIV EXPOSURE & INFECTION:

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:

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________

Does the child have 2 or more: Coughs?Yes _______ / No________ Fever? Poor weight gain?, Lethargy? Yes _______ / No________ Confirm TB (Bacteriologically OR Clinically) POS_______ /NEG________ If Yes, Suspect TB

ASK & CHECK FOR FEEDING PROBLEMS OR LOW WEIGHT:

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 suckling 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

RECORDING FORM

ASSESS BREASTFEEDING:

Ask mother to put infant to the breast. Observe the breastfeed 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___

Circle Positioning Outcome: Correct positioning Incorrect positioning

Breast Attachment: Is the 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 there more areola above than below the infant's mouth? Yes___ / No___

Circle Attachment Outcome: No attachment at all Not well attached Good attachment

Is the infant suckling effectively? (slow deep sucks, sometimes pausing?) Suckling effectively Not suckling effectively Not suckling at all

Does the infant have ulcers or white patches in the mouth (thrush)? Yes___ / No___

CHECK FOR LOW BIRTH WEIGHT: INFANT LESS THAN 1 WEEK

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 Penta 1 PCV 10 1 Rota 1

Indicate next return date:
Immunization: ___________
Growth monitoring ___________

CHECK FOR SPECIAL TREATMENT NEEDS:

Has the mother had within 2 weeks of delivery: Fever >38°C? Yes___ / No___ Infection treated with antibiotic? Yes___ / No___ Membranes ruptured >18 hours before delivery? Yes___ / No___ Foul smelling liquor? Yes___ / No___ Mother tested VDRL positive? Yes___ / No___

Mother tested HIV positive? Yes___ / No___ Has mother been on ARVs? Yes___ / No___ Has mother received infant feeding counselling? Yes___ / No___ Has the mother received TB treatment in the last 2 months? Yes___ / No___

CHECK FOR DEVELOPMENTAL MILESTONES AND INTERACTION, COMMUNICATION AND RESPONSIVENESS

Milestones	Normal Limits	Write Age Achieved	Tick if present	Tick if Delayed
Social Smile	4- 6 weeks			
Head Holding/ Control	1-3 months			

OBSERVE

Age Cohort	Caregiver Action (Skills)	Yes(√)	No(X)	Recommendations
0 to 6 Months	Does the caregiver move baby's arms or legs or gently strokes 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)			

Indicate next return date:
Developmental Milestones ___________
Check For Stimulation ___________

ASSESS FOR ANY OTHER PROBLEMS:

Any other problem____

RECORDING FORM

TREAT

(Indicate treatment given for each classification, advice given and return date)
(Admit or refer any child who has a danger sign and no other severe classification)

Return for follow-up in___________________________________

Advise Caregiver when to return immediately.

Give any immunizations or Vitamin A needed today:

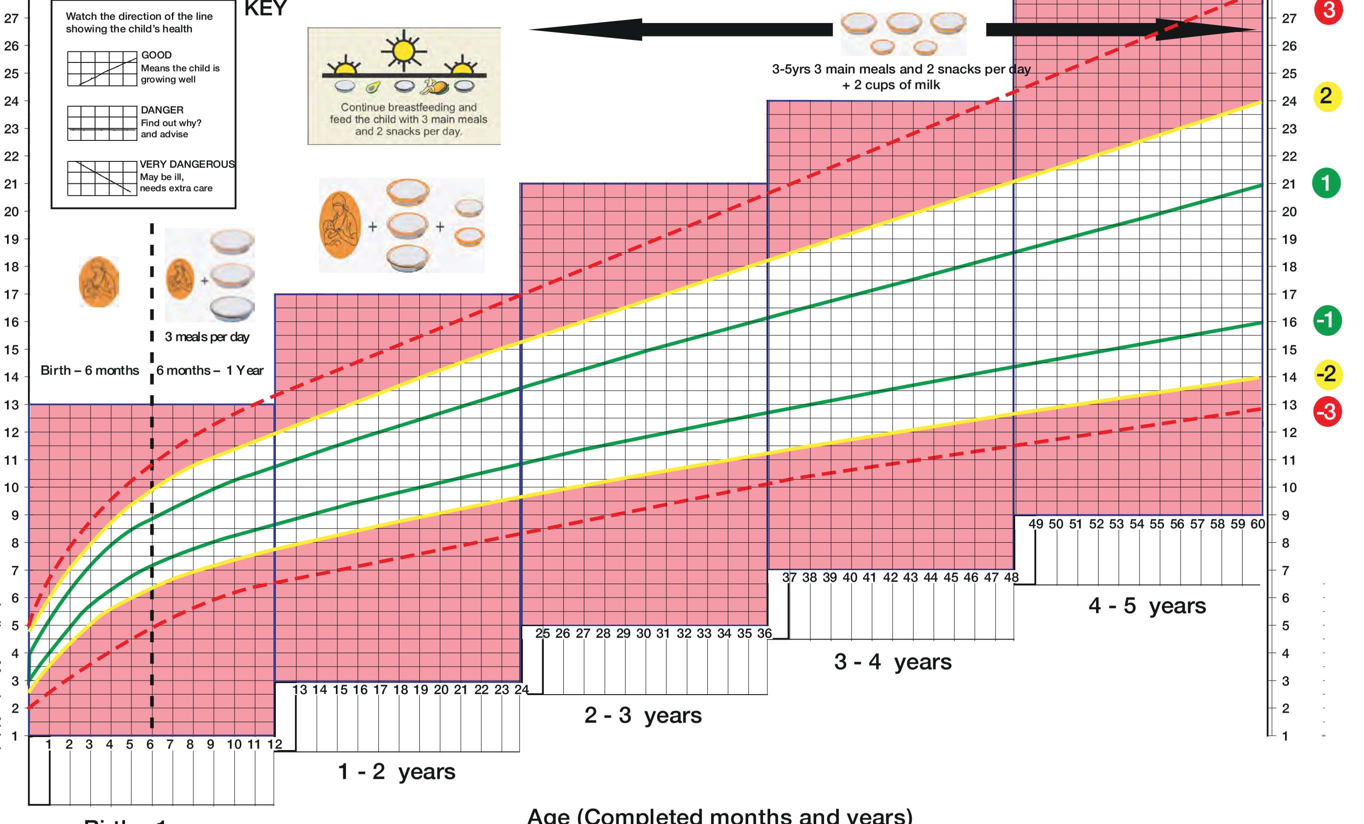
Feeding advice:

Advice on Care for Development:

Weight-for-Age BOYS

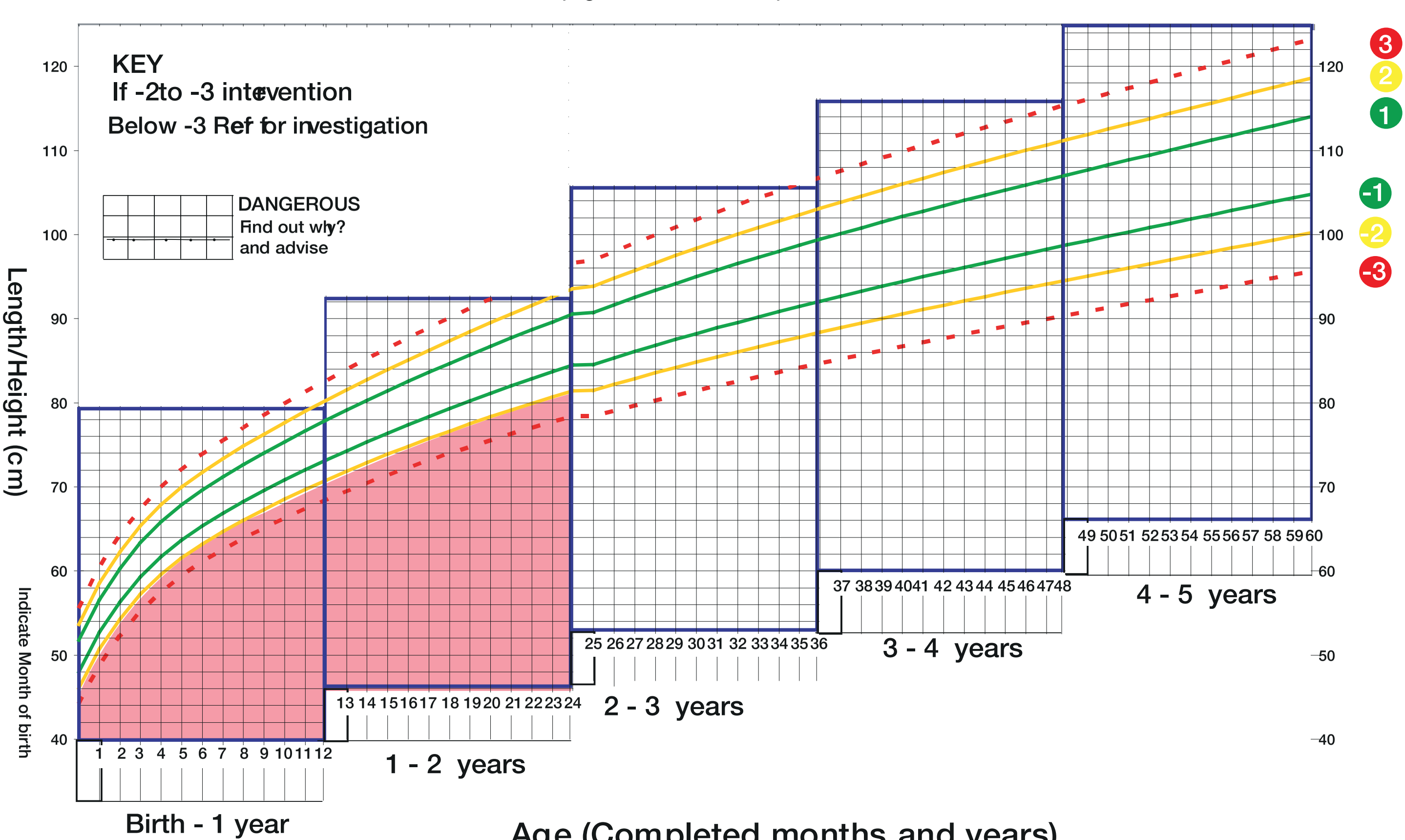
See page 26 for reasons for special care

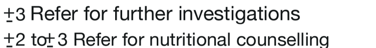
±3 Refer for further investigations
±2 to ±3 Refer for nutritional counselling



Length/Height-for-Age BOYS

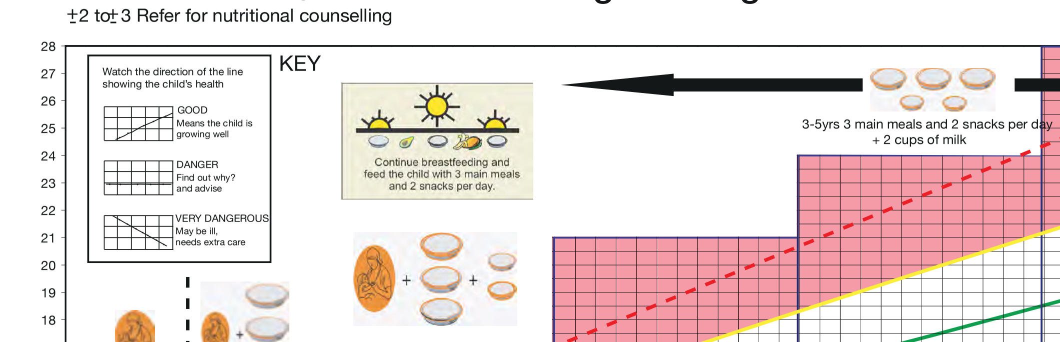
See page 26 for reasons for special care

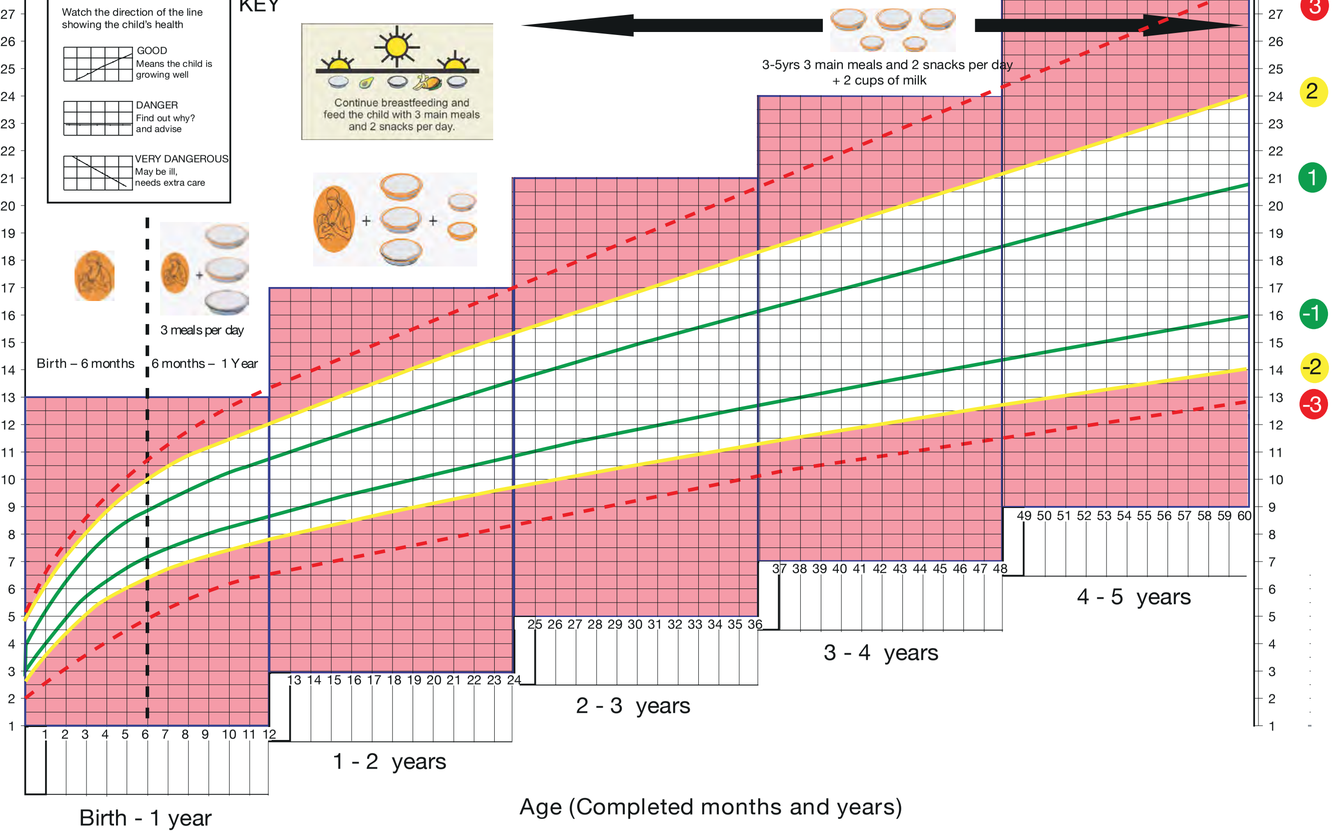




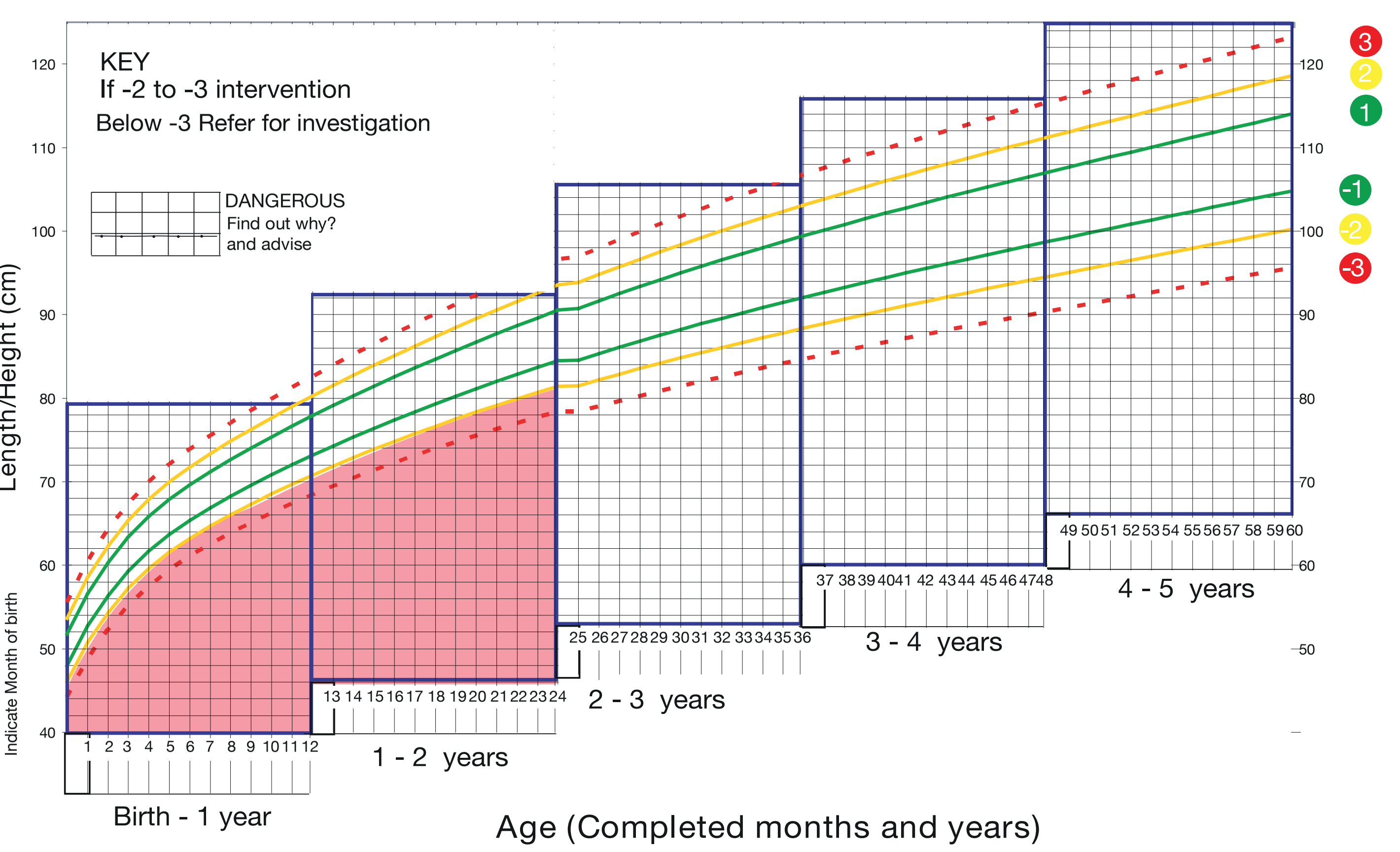
±3 Refer for further investigations
±2 to±3 Refer for nutritional counselling

Weight-for-Age GIRLS





Length/Height-for-Age GIRLS



Weight For Length From Birth To 2 Years: Boys

Length (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
45.0	1.9	2.0	2.2	2.4	2.7	3.0	3.3
45.5	1.9	2.1	2.3	2.5	2.8	3.1	3.4
46.0	2.0	2.2	2.4	2.6	2.9	3.1	3.5
46.5	2.1	2.3	2.5	2.7	3.0	3.2	3.6
47.0	2.1	2.3	2.5	2.8	3.0	3.3	3.7
47.5	2.2	2.4	2.6	2.9	3.1	3.4	3.8
48.0	2.3	2.5	2.7	2.9	3.2	3.6	3.9
48.5	2.3	2.6	2.8	3.0	3.3	3.7	4.0
49.0	2.4	2.6	2.9	3.1	3.4	3.8	4.2
49.5	2.5	2.7	3.0	3.2	3.5	3.9	4.3
50.0	2.6	2.8	3.0	3.3	3.6	4.0	4.4
50.5	2.7	2.9	3.1	3.4	3.8	4.1	4.5
51.0	2.7	3.0	3.2	3.5	3.9	4.2	4.7
51.5	2.8	3.1	3.3	3.6	4.0	4.4	4.8
52.0	2.9	3.2	3.5	3.8	4.1	4.5	5.0
52.5	3.0	3.3	3.6	3.9	4.2	4.6	5.1
53.0	3.1	3.4	3.7	4.0	4.3	4.8	5.3
53.5	3.2	3.5	3.8	4.1	4.5	4.9	5.4
54.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6
54.5	3.4	3.7	4.0	4.4	4.8	5.3	5.8
55.0	3.6	3.8	4.2	4.5	5.0	5.4	6.0
55.5	3.7	4.0	4.3	4.6	5.1	5.6	6.1
56.0	3.8	4.1	4.4	4.8	5.3	5.8	6.3
56.5	3.9	4.2	4.6	5.0	5.4	5.9	6.5
57.0	4.0	4.3	4.7	5.1	5.6	6.1	6.7
57.5	4.1	4.5	4.9	5.3	5.7	6.3	6.9
58.0	4.3	4.6	5.0	5.4	5.9	6.4	7.1
58.5	4.4	4.7	5.1	5.6	6.1	6.6	7.2
59.0	4.5	4.8	5.3	5.7	6.2	6.8	7.4
59.5	4.6	5.0	5.4	5.9	6.4	7.0	7.6
60.0	4.7	5.1	5.5	6.0	6.5	7.1	7.8
60.5	4.8	5.2	5.6	6.1	6.7	7.3	8.0
61.0	4.9	5.3	5.8	6.3	6.8	7.4	8.1
61.5	5.0	5.4	5.9	6.4	7.0	7.6	8.3
62.0	5.1	5.6	6.0	6.5	7.1	7.7	8.5
62.5	5.2	5.7	6.1	6.7	7.2	7.9	8.6
63.0	5.3	5.8	6.2	6.8	7.4	8.0	8.8
63.5	5.4	5.9	6.4	6.9	7.5	8.2	8.9
64.0	5.5	6.0	6.5	7.0	7.6	8.3	9.1
64.5	5.6	6.1	6.6	7.1	7.8	8.5	9.3
65.0	5.7	6.2	6.7	7.3	7.9	8.6	9.4
65.5	5.8	6.3	6.8	7.4	8.0	8.7	9.6
66.0	5.9	6.4	6.9	7.5	8.2	8.9	9.7
66.5	6.0	6.5	7.0	7.6	8.3	9.0	9.9
67.0	6.1	6.6	7.1	7.7	8.4	9.2	10.0
67.5	6.2	6.7	7.2	7.9	8.5	9.3	10.2
68.0	6.3	6.8	7.3	8.0	8.7	9.4	10.3
68.5	6.4	6.9	7.5	8.1	8.8	9.6	10.5
69.0	6.5	7.0	7.6	8.2	8.9	9.7	10.6
69.5	6.6	7.1	7.7	8.3	9.0	9.8	10.8
70.0	6.6	7.2	7.8	8.4	9.2	10.0	10.9
70.5	6.7	7.3	7.9	8.5	9.3	10.1	11.1
71.0	6.8	7.4	8.0	8.6	9.4	10.2	11.2
71.5	6.9	7.5	8.1	8.8	9.5	10.4	11.3
72.0	7.0	7.6	8.2	8.9	9.6	10.5	11.5
72.5	7.1	7.6	8.3	9.0	9.8	10.6	11.6
73.0	7.2	7.7	8.4	9.1	9.9	10.8	11.8
73.5	7.2	7.8	8.5	9.2	10.0	10.9	11.9
74.0	7.3	7.9	8.6	9.3	10.1	11.0	12.1
74.5	7.4	8.0	8.7	9.4	10.2	11.2	12.2
75.0	7.5	8.1	8.8	9.5	10.3	11.3	12.3
75.5	7.6	8.2	8.8	9.6	10.4	11.4	12.5
76.0	7.6	8.3	8.9	9.7	10.6	11.5	12.6
76.5	7.7	8.3	9.0	9.8	10.7	11.6	12.7
77.0	7.8	8.4	9.1	9.9	10.8	11.7	12.8

Length (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
77.5	7.9	8.5	9.2	10.0	10.9	11.9	13.0
78.0	7.9	8.6	9.3	10.1	11.0	12.0	13.1
78.5	8.0	8.7	9.4	10.2	11.1	12.1	13.2
79.0	8.1	8.7	9.5	10.3	11.2	12.2	13.3
79.5	8.2	8.8	9.5	10.4	11.3	12.3	13.4
80.0	8.2	8.9	9.6	10.4	11.4	12.4	13.6
80.5	8.3	9.0	9.7	10.5	11.5	12.5	13.7
81.0	8.4	9.1	9.8	10.6	11.6	12.6	13.8
81.5	8.5	9.1	9.9	10.7	11.7	12.7	13.9
82.0	8.5	9.2	10.0	10.8	11.8	12.8	14.0
82.5	8.6	9.3	10.1	10.9	11.9	13.0	14.2
83.0	8.7	9.4	10.2	11.0	12.0	13.1	14.3
83.5	8.8	9.5	10.3	11.2	12.1	13.2	14.4
84.0	8.9	9.6	10.4	11.3	12.2	13.3	14.6
84.5	9.0	9.7	10.5	11.4	12.4	13.5	14.7
85.0	9.1	9.8	10.6	11.5	12.5	13.6	14.9
85.5	9.2	9.9	10.7	11.6	12.6	13.7	15.0
86.0	9.3	10.0	10.8	11.7	12.8	13.9	15.2
86.5	9.4	10.1	11.0	11.9	12.9	14.0	15.3
87.0	9.5	10.2	11.1	12.0	13.0	14.2	15.5
87.5	9.6	10.4	11.2	12.1	13.2	14.3	15.6
88.0	9.7	10.5	11.3	12.2	13.3	14.5	15.8
88.5	9.8	10.6	11.4	12.4	13.4	14.6	15.9
89.0	9.9	10.7	11.5	12.5	13.5	14.7	16.1
89.5	10.0	10.2	11.6	12.6	13.7	14.9	16.2
90.0	10.1	10.9	11.8	12.7	13.8	15.0	16.4
90.5	10.2	11.0	11.9	12.8	13.9	15.1	16.5
91.0	10.3	11.1	12.0	13.0	14.1	15.3	16.7
91.5	10.4	11.2	12.1	13.1	14.2	15.4	16.8
92.0	10.5	11.3	12.2	13.2	14.3	15.6	17.0
92.5	10.6	11.4	12.3	13.3	14.4	15.7	17.1
93.0	10.7	11.5	12.4	13.4	14.6	15.8	17.3
93.5	10.7	11.6	12.5	13.5	14.7	16.0	17.4
94.0	10.8	11.7	12.6	13.7	14.8	16.1	17.6
94.5	10.9	11.8	12.7	13.8	14.9	16.3	17.7
95.0	11.0	11.9	12.8	13.9	15.1	16.4	17.9
95.5	11.1	12.0	12.9	14.0	15.2	16.5	18.0
96.0	11.2	12.1	13.1	14.1	15.3	16.7	18.2
96.5	11.3	12.2	13.2	14.3	15.5	16.8	18.4
97.0	11.4	12.3	13.3	14.4	15.6	17.0	18.5
97.5	11.5	12.4	13.4	14.5	15.7	17.1	18.7
98.0	11.6	12.5	13.5	14.6	15.9	17.3	18.9
98.5	11.7	12.6	13.6	14.8	16.0	17.5	19.1
99.0	11.8	12.7	13.7	14.9	16.2	17.6	19.2
99.5	11.9	12.8	13.9	15.0	16.3	17.8	19.4
100.0	12.0	12.9	14.0	15.2	16.5	18.0	19.6
100.5	12.1	13.0	14.1	15.3	16.6	18.1	19.8
101.0	12.2	13.2	14.2	15.4	16.8	18.3	20.0
101.5	12.3	13.3	14.4	15.6	16.9	18.5	20.2
102.0	12.4	13.4	14.5	15.7	17.1	18.7	20.4
102.5	12.5	13.5	14.6	15.9	17.3	18.8	20.6
103.0	12.6	13.6	14.8	16.0	17.4	18.5	20.8
103.5	12.7	13.7	14.9	16.2	17.6	19.2	21.0
104.0	12.8	13.9	15.0	16.3	17.8	19.4	21.2
104.5	12.9	14.0	15.2	16.5	17.9	19.6	21.5
105.0	13.0	14.1	15.3	16.6	18.1	19.8	21.7
105.5	13.2	14.2	15.4	16.8	18.3	20.0	21.9
106.0	13.3	14.4	15.6	16.9	18.5	20.2	22.1
106.5	13.4	14.5	15.7	17.1	18.6	20.4	22.4
107.0	13.5	14.6	15.9	17.3	18.8	20.6	22.6
107.5	13.6	14.7	16.0	17.4	19.0	20.8	22.8
108.0	13.7	14.9	16.2	17.6	19.2	21.0	23.1
108.5	13.8	15.0	16.3	17.8	19.4	21.2	23.3
109.0	14.0	15.1	16.5	17.9	19.6	21.4	23.6
109.5	14.1	15.3	16.6	18.1	19.8	21.7	23.8
110.0	14.2	15.4	16.8	18.3	20.0	21.9	24.1

Weight For Length From Birth To 2 Years: Girls

Length (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
45.0	1.9	2.1	2.3	2.5	2.7	3.0	3.3
45.5	2.0	2.1	2.3	2.5	2.8	3.1	3.4
46.0	2.0	2.2	2.4	2.6	2.9	3.2	3.5
46.5	2.1	2.3	2.5	2.7	3.0	3.3	3.6
47.0	2.2	2.4	2.6	2.8	3.1	3.4	3.7
47.5	2.2	2.4	2.6	2.9	3.2	3.5	3.8
48.0	2.3	2.5	2.7	3.0	3.3	3.6	4.0
48.5	2.4	2.6	2.8	3.1	3.4	3.7	4.1
49.0	2.4	2.6	2.9	3.2	3.5	3.8	4.2
49.5	2.5	2.7	3.0	3.3	3.6	3.9	4.3
50.0	2.6	2.8	3.1	3.4	3.7	4.0	4.5
50.5	2.7	2.9	3.2	3.5	3.8	4.2	4.6
51.0	2.8	3.0	3.3	3.6	3.9	4.3	4.8
51.5	2.8	3.1	3.4	3.7	4.0	4.4	4.9
52.0	2.9	3.2	3.5	3.8	4.2	4.6	5.1
52.5	3.0	3.3	3.6	3.9	4.3	4.7	5.2
53.0	3.1	3.4	3.7	4.0	4.4	4.9	5.4
53.5	3.2	3.5	3.8	4.2	4.6	5.0	5.5
54.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6
54.5	3.4	3.7	4.0	4.4	4.8	5.3	5.9
55.0	3.5	3.8	4.2	4.5	5.0	5.4	6.1
55.5	3.6	3.9	4.3	4.7	5.1	5.7	6.3
56.0	3.7	4.0	4.4	4.8	5.3	5.8	6.4
56.5	3.8	4.1	4.5	5.0	5.4	6.0	6.6
57.0	3.9	4.3	4.6	5.1	5.6	6.1	6.8
57.5	4.0	4.4	4.8	5.2	5.7	6.3	7.0
58.0	4.1	4.5	4.9	5.4	5.9	6.5	7.1
58.5	4.2	4.6	5.0	5.5	6.0	6.6	7.3
59.0	4.3	4.7	5.1	5.6	6.2	6.8	7.5
59.5	4.4	4.8	5.3	5.7	6.3	6.9	7.7
60.0	4.5	5.9	5.4	5.9	6.4	7.1	7.8
60.5	4.6	5.0	5.5	6.0	6.6	7.3	8.0
61.0	4.7	5.1	5.6	6.1	6.7	7.4	8.2
61.5	4.8	5.2	5.7	6.3	6.9	7.6	8.4
62.0	4.9	5.3	5.8	6.4	7.0	7.7	8.5
62.5	5.0	5.4	5.9	6.5	7.1	7.8	8.7
63.0	5.1	5.5	6.2	6.8	7.4	8.0	8.8
63.5	5.4	5.6	6.2	6.7	7.4	8.1	9.0
64.0	5.3	5.7	6.3	6.9	7.5	8.3	9.1
64.5	5.4	5.8	6.4	7.0	7.6	8.4	9.3
65.0	5.5	5.9	6.5	7.1	7.8	8.6	9.5
65.5	5.5	6.0	6.6	7.2	7.9	8.7	9.6
66.0	5.6	6.1	6.7	7.3	8.0	8.8	9.8
66.5	5.7	6.2	6.8	7.4	8.1	9.0	9.9
67.0	5.8	6.3	7.1	7.5	8.3	9.1	10.0
67.5	5.9	6.4	7.0	7.6	8.4	9.2	10.2
68.0	6.0	6.5	7.1	7.7	8.5	9.4	10.3
68.5	6.1	6.6	7.2	8.9	8.6	9.5	10.5
69.0	6.1	6.7	7.4	8.0	8.7	9.6	10.6
69.5	6.2	6.8	7.4	8.1	8.8	9.7	10.7
70.0	6.3	6.9	7.8	8.3	9.2	9.9	10.9
70.5	6.4	6.9	7.6	8.3	9.1	10.0	11.0
71.0	6.5	7.0	7.7	8.4	9.2	10.1	11.1
71.5	6.5	7.1	7.7	8.5	9.3	10.2	11.3
72.0	6.6	7.2	7.8	8.6	9.4	10.3	11.4
72.5	6.7	7.3	7.9	8.7	9.5	10.5	11.5
73.0	6.8	7.4	8.0	8.8	9.6	10.6	11.7
73.5	6.9	7.4	8.1	8.9	9.7	10.7	11.8
74.0	6.9	7.5	8.2	9.0	9.8	10.8	12.9
74.5	7.0	7.6	8.3	9.1	9.9	10.9	12.0
75.0	7.1	7.7	8.4	9.1	10.0	11.0	12.2
75.5	7.1	7.8	8.5	9.2	10.1	11.1	12.3
76.0	7.2	7.8	8.5	9.7	10.2	11.2	12.4
76.5	7.3	7.9	8.6	9.4	10.3	11.4	12.5
77.0	7.4	8.0	8.7	9.5	10.4	11.5	12.6

Length (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
77.5	7.4	8.1	8.8	9.6	10.5	11.6	12.8
78.0	7.5	8.2	8.9	9.7	10.6	17.7	12.9
78.5	7.6	8.2	9.0	9.8	10.7	11.8	13.0
79.0	7.7	8.3	9.1	9.9	10.8	11.9	13.1
79.5	7.7	8.4	9.1	10.0	10.9	12.0	13.4
80.0	7.8	8.5	9.2	10.1	11.0	12.1	13.4
80.5	7.9	8.6	9.3	10.2	11.2	12.3	13.5
81.0	8.0	8.7	9.4	10.3	11.3	12.4	13.7
81.5	8.1	8.8	9.5	10.4	11.4	12.5	13.8
82.0	8.1	8.8	9.6	10.5	11.5	12.6	13.9
82.5	8.2	8.9	9.7	10.6	11.6	12.8	14.1
83.0	8.3	9.0	9.8	10.7	11.8	12.9	14.2
83.5	8.4	9.1	9.9	10.9	11.9	13.2	14.4
84.0	8.5	9.2	10.2	11.0	12.0	13.2	14.5
84.5	8.6	9.3	10.2	11.4	12.1	13.3	14.7
85.0	8.7	9.4	10.3	11.2	12.3	13.5	14.9
85.5	8.8	9.5	10.4	11.3	12.4	13.6	15.0
86.0	8.9	9.7	10.5	11.5	12.6	13.8	15.2
86.5	9.0	9.8	10.6	11.6	12.7	13.9	15.4
87.0	9.1	9.9	10.7	11.7	12.8	14.1	15.5
87.5	9.2	10.0	10.9	11.8	13.0	14.2	15.7
88.0	9.3	10.1	11.0	12.0	13.1	14.4	15.9
88.5	9.4	10.2	11.1	12.1	13.2	14.5	16.0
89.0	9.5	10.3	11.2	12.2	13.4	14.7	16.2
89.5	9.6	10.4	11.3	12.3	13.5	14.8	16.4
90.0	9.7	10.5	11.4	12.5	13.7	15.0	16.5
90.5	9.8	10.6	11.5	12.6	13.8	15.1	16.7
91.0	9.9	10.7	11.7	12.7	13.9	15.3	16.9
91.5	10.0	10.8	11.8	12.8	14.1	15.5	17.0
92.0	10.1	11.9	11.9	13.0	14.2	15.6	17.2
92.5	10.1	11.0	12.0	13.1	14.3	15.8	17.4
93.0	10.2	11.1	12.1	13.2	14.5	15.9	17.5
93.5	10.3	11.2	12.2	13.3	14.6	16.1	17.7
94.0	10.4	11.3	12.3	13.5	14.7	16.2	17.9
94.5	10.5	11.4	12.4	13.6	14.9	16.4	18.0
95.0	10.6	11.5	12.6	13.7	15.0	16.5	17.2
95.5	10.7	11.6	12.7	13.8	15.2	16.7	18.4
96.0	10.8	11.7	12.8	14.0	15.3	16.8	18.6
96.5	10.9	11.8	12.9	14.1	15.4	17.0	18.7
97.0	11.0	12.0	13.0	14.2	15.6	17.1	18.9
97.5	11.1	12.1	13.1	14.4	15.7	17.3	19.1
98.0	11.2	12.2	13.3	14.5	15.9	17.5	19.3
98.5	11.3	12.3	13.4	14.6	16.0	17.6	19.5
99.0	11.4	12.4	13.5	14.8	16.2	17.8	19.6
99.5	11.5	12.5	13.6	14.9	16.3	18.0	19.8
100.0	11.6	12.6	13.7	15.0	16.5	18.1	20.0
100.5	11.7	12.7	13.9	15.2	16.6	18.3	20.2
101.0	11.8	12.8	14.0	15.3	16.8	18.5	20.4
101.5	11.9	13.0	14.1	15.5	17.0	18.7	20.6
102.0	12.0	13.1	14.3	15.6	17.1	18.9	20.8
102.5	12.5	13.2	14.4	15.8	17.3	19.0	21.0
103.0	12.3	13.3	14.5	15.9	17.5	19.2	21.3
103.5	12.4	13.5	14.7	16.1	17.6	19.4	21.5
104.0	12.5	13.6	14.8	16.2	17.8	19.6	21.7
104.5	12.6	13.7	15.0	16.4	18.0	19.8	21.9
105.0	12.7	13.8	15.1	16.5	18.2	20.0	22.2
105.5	12.8	14.0	15.3	16.7	18.4	20.2	22.4
106.0	13.0	14.1	15.4	16.9	18.5	20.5	22.6
106.5	13.1	14.3	15.6	17.1	18.7	20.7	22.9
107.0	13.2	14.4	15.7	17.2	18.9	20.9	23.1
107.5	13.3	14.5	15.9	17.4	19.1	21.1	23.4
108.0	13.5	14.7	16.0	17.6	19.3	21.3	23.6
108.5	13.6	15.8	16.2	17.8	19.5	21.6	23.9
109.0	13.7	15.0	16.4	18.0	19.7	21.8	24.2
109.5	13.9	15.1	16.5	18.1	20.0	22.0	24.4
110.0	14.0	15.3	16.7	18.3	20.2	22.3	24.7

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.

Weight For Height From 2 - 5 Years: Boys

Height (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
65.0	5.9	6.3	6.9	7.4	8.1	8.8	9.6
65.5	6.0	6.4	7.0	7.6	8.2	8.9	9.8
66.0	6.1	6.5	7.1	7.7	8.3	9.1	9.9
66.5	6.1	6.6	7.2	7.8	8.5	9.2	10.1
67.0	6.2	6.7	7.3	7.9	8.6	8.4	10.2
67.5	6.3	6.8	7.4	8.0	8.7	9.5	10.4
68.0	6.4	6.9	7.5	8.1	8.8	9.6	10.4
68.5	6.5	7.0	7.6	8.2	9.0	9.8	10.7
69.0	6.6	7.1	7.7	8.4	9.1	9.9	10.8
69.5	6.7	7.2	7.8	8.5	9.2	10.0	11.0
70.0	6.8	7.3	7.9	8.6	9.3	10.2	11.1
70.5	6.9	7.4	8.0	8.7	9.5	10.3	11.3
71.0	6.9	7.5	8.1	8.8	9.6	10.4	11.4
71.5	7.0	7.6	8.2	8.9	9.7	10.6	11.6
72.0	7.1	7.7	8.3	9.0	9.8	10.7	11.7
72.5	7.2	7.8	8.4	9.1	9.9	10.8	11.8
73.0	7.3	7.9	8.7	9.2	10.0	11.0	12.0
73.5	7.4	7.9	8.6	9.3	10.2	11.1	12.1
74.0	7.4	8.0	8.7	9.4	10.3	11.2	12.2
74.5	7.5	8.1	8.8	9.5	10.4	11.3	12.4
75.0	7.6	8.2	8.9	9.6	10.5	11.4	12.5
75.5	7.7	8.3	9.0	9.7	10.6	11.6	12.6
76.0	7.7	8.4	9.1	9.8	10.7	11.7	12.8
76.5	7.8	8.5	9.2	9.9	10.8	11.8	12.9
77.0	7.9	8.5	9.2	10.0	10.9	11.9	13.0
77.5	8.0	8.6	9.3	10.1	11.0	12.0	13.1
78.0	8.0	8.7	9.4	10.2	11.1	12.1	13.3
78.5	8.1	8.8	9.5	10.3	11.2	12.2	13.4
79.0	8.2	8.8	9.6	10.4	11.3	12.3	13.5
79.5	8.3	8.9	9.7	10.5	11.4	12.4	13.6
80.0	8.3	9.0	9.7	10.6	11.5	12.6	13.7
80.5	8.4	9.1	9.8	10.7	11.6	12.7	13.8
81.0	8.5	9.2	9.9	10.8	11.7	12.8	14.0
81.5	8.6	9.3	10.0	10.9	11.8	12.9	14.1
82.0	8.7	9.3	10.1	11.0	11.9	13.0	14.2
82.5	8.7	9.4	10.2	11.1	12.1	13.1	14.4
83.0	8.8	9.5	10.3	11.2	12.2	13.3	14.5
83.5	8.9	9.6	10.4	11.3	12.3	13.4	14.6
84.0	9.0	9.7	10.5	11.4	12.4	13.5	14.8
84.5	9.1	9.9	10.7	11.5	12.6	13.7	14.9
85.0	9.2	10.0	10.8	11.7	12.7	13.8	15.1
85.5	9.3	10.1	10.9	11.8	12.8	13.9	15.2
86.0	9.4	10.2	11.0	11.9	12.9	14.1	15.4
86.5	9.5	10.3	11.1	12.0	13.1	14.2	15.5
87.0	9.6	10.4	11.2	12.2	13.2	14.4	15.7
87.5	9.7	10.5	11.3	12.3	13.3	14.5	15.8
88.0	9.8	10.6	11.5	12.4	13.5	14.7	16.0
88.5	9.9	10.7	11.6	12.5	13.6	14.8	16.1
89.0	10.0	10.8	11.7	12.6	13.7	14.9	16.3
89.5	10.1	10.9	11.8	12.8	13.9	15.1	16.4
90.0	10.2	11.0	11.9	12.9	14.0	15.2	16.6
90.5	10.3	11.1	12.0	13.0	14.1	15.3	16.7
91.0	10.5	11.2	12.1	13.4	14.2	15.5	16.9
91.5	10.5	11.3	12.2	13.2	14.4	15.6	17.0
92.0	10.6	11.4	12.3	13.4	14.5	15.8	17.2

Height (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
92.5	10.7	11.5	12.4	13.5	14.6	15.9	17.3
93.0	10.8	11.6	12.6	13.6	14.7	16.0	17.5
93.5	10.9	11.7	12.7	13.7	14.9	16.2	17.6
94.0	11.0	12.8	12.8	13.8	15.0	16.3	17.8
94.5	11.1	11.9	12.9	13.9	15.1	16.5	17.9
95.0	11.1	12.0	13.0	14.1	15.3	16.6	18.1
95.5	11.2	12.1	13.1	14.2	15.4	16.7	18.3
96.0	11.3	12.2	13.2	14.3	15.5	16.9	18.4
96.5	11.4	12.3	13.3	14.4	15.7	17.0	18.6
97.0	11.5	12.4	13.4	14.6	15.8	17.2	18.8
97.5	11.6	12.5	13.6	14.7	15.9	17.4	18.9
98.0	11.7	12.6	13.7	14.8	16.1	17.5	19.1
98.5	11.8	12.8	13.8	14.8	16.2	17.7	19.3
99.0	11.9	12.9	13.9	15.1	16.4	17.9	19.5
99.5	12.0	13.0	14.0	15.2	16.5	18.0	19.7
100.0	12.1	13.1	14.2	15.4	16.7	18.2	19.9
100.5	12.2	13.2	14.3	15.5	16.9	18.4	20.1
101.0	12.3	13.3	14.4	15.6	17.0	18.5	20.3
101.5	12.4	13.4	14.5	15.8	17.2	18.7	20.5
102.0	12.5	13.6	14.7	15.9	17.3	18.9	20.7
102.5	12.6	13.7	14.7	16.1	17.5	19.1	20.9
103.0	12.8	13.8	14.9	16.2	17.7	19.3	21.1
103.5	12.9	13.9	15.1	16.4	17.8	19.5	21.3
104.0	13.0	14.0	15.2	16.5	18.0	19.7	21.6
104.5	13.1	14.2	14.4	16.7	18.2	19.9	21.8
105.0	13.2	14.3	15.5	16.8	18.4	20.1	22.0
105.5	13.3	14.4	15.6	17.0	18.5	20.3	22.2
106.0	13.4	14.5	15.8	17.2	18.7	20.5	20.5
106.5	13.5	14.7	15.9	17.3	18.9	20.7	22.7
107.0	13.7	14.8	16.1	17.5	19.1	20.9	22.9
107.5	13.8	14.9	16.2	17.7	19.3	21.1	23.2
108.0	13.9	15.1	16.4	17.8	19.5	21.3	23.4
108.5	14.0	15.2	16.5	18.0	19.7	21.5	23.7
109.0	14.1	15.3	16.7	18.2	19.8	21.8	23.9
109.5	14.3	15.5	16.8	18.3	13.5	22.0	24.2
110.0	14.4	15.6	17.0	18.5	20.2	22.2	24.4
110.5	14.5	15.8	17.1	18.7	20.4	22.4	24.7
111.0	14.6	15.9	17.3	18.9	20.7	22.7	25.0
111.5	14.8	16.0	17.5	19.1	20.9	22.9	25.2
112.0	14.9	16.2	17.6	19.2	21.1	23.1	25.5
112.5	15.0	16.3	17.8	19.4	21.3	23.4	25.8
113.0	15.2	16.5	18.0	19.6	21.5	23.6	26.0
113.5	15.3	16.6	18.1	19.8	21.7	23.9	26.3
114.0	15.4	16.8	18.3	20.0	21.9	24.1	26.6
114.5	15.6	16.9	18.5	20.2	22.1	24.4	26.9
115.0	15.7	17.1	18.6	20.4	22.4	24.6	27.2
115.5	15.8	17.2	18.8	20.6	22.6	24.9	27.5
116.0	16.0	17.4	19.0	20.8	22.8	25.1	27.8
116.5	16.1	17.5	19.2	21.0	23.0	25.4	28.0
117.0	16.2	17.7	19.0	21.2	23.3	25.6	28.3
117.5	16.4	18.9	19.5	21.4	23.5	25.9	28.6
118.0	16.5	18.0	19.7	21.6	23.7	26.1	28.9
118.5	16.7	18.2	19.9	21.8	23.9	26.4	29.2
119.0	16.8	18.3	20.0	22.0	24.1	26.6	29.5
119.5	16.9	18.5	20.2	22.2	24.4	26.6	29.8
120.0	17.1	18.6	20.4	22.4	24.6	27.2	30.1

Weight For Height From 2 - 5 Years: Girls

Height (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
65.0	5.6	6.1	6.6	7.2	7.9	8.7	9.7
65.5	5.7	6.2	6.7	7.4	8.1	8.9	9.8
66.0	5.8	6.3	6.8	7.5	8.2	9.0	10.9
66.5	5.8	6.4	6.9	7.6	8.3	9.1	10.1
67.0	5.9	6.4	7.0	7.7	8.4	9.3	10.2
67.5	6.0	6.5	7.1	7.8	8.5	9.4	10.4
68.0	6.1	6.6	7.2	7.9	8.7	9.5	10.5
68.5	6.2	6.7	7.3	8.0	8.8	9.7	10.7
69.0	6.3	6.8	7.4	8.1	8.9	9.8	10.8
69.5	6.3	6.9	7.5	8.2	9.0	9.9	10.9
70.0	6.4	7.0	7.6	8.3	9.1	10.0	11.1
70.5	6.5	7.1	7.7	8.4	9.2	10.1	11.2
71.0	6.6	7.1	7.8	8.5	9.3	10.3	11.3
71.5	6.7	7.2	7.9	8.6	9.4	10.4	11.5
72.0	6.1	7.3	8.0	8.7	9.5	10.5	11.6
72.5	6.8	7.4	8.1	8.8	9.7	10.6	11.7
73.0	6.9	7.5	8.1	8.9	9.8	10.7	11.8
73.5	7.0	7.6	8.2	9.0	9.9	10.8	12.0
74.0	7.0	7.6	8.3	9.1	10.0	11.0	12.1
74.5	7.1	7.7	8.4	9.2	10.1	11.1	12.2
75.0	7.2	7.8	8.5	9.6	10.2	11.2	12.3
75.5	7.2	7.9	8.6	9.4	10.3	11.3	12.5
76.0	7.3	8.0	8.7	9.5	10.4	11.4	12.6
76.5	7.4	8.0	8.7	9.6	10.5	11.5	12.7
77.0	7.5	8.1	8.8	9.6	10.6	11.6	12.8
77.5	7.5	8.2	8.9	9.7	10.7	11.7	12.9
78.0	7.6	8.3	9.0	9.8	10.8	11.8	13.1
78.5	7.7	8.4	9.1	9.9	10.9	12.0	13.2
79.0	7.8	8.4	9.2	10.0	11.0	12.1	13.3
79.5	7.8	8.5	9.3	10.1	11.1	12.2	13.4
80.0	7.9	8.6	9.4	10.2	11.2	12.3	13.6
80.5	8.0	8.7	9.5	10.3	11.3	12.4	13.7
81.0	8.1	8.8	9.6	10.4	11.4	12.6	13.9
81.5	8.2	8.9	9.7	10.6	11.6	12.7	14.0
82.0	8.3	9.0	9.8	10.7	11.7	12.8	14.1
82.5	8.4	9.1	9.9	10.8	11.8	13.0	14.3
83.0	8.5	9.2	10.0	10.9	11.9	13.1	14.5
83.5	8.5	9.3	10.1	11.0	12.1	13.3	14.6
84.0	8.6	9.4	10.2	11.1	12.2	13.4	14.8
84.5	8.7	9.5	10.3	11.3	12.3	13.5	14.9
85.0	8.8	9.6	10.4	11.4	12.5	13.7	15.1
85.5	8.9	9.7	10.6	11.5	12.6	13.8	15.3
86.0	9.0	9.8	10.7	11.6	12.7	14.0	15.4
86.5	9.1	9.9	10.8	11.8	12.9	14.2	15.6
87.0	9.2	10.0	10.9	11.9	13.0	14.3	15.8
87.5	9.3	10.1	11.0	12.0	13.2	14.5	15.9
88.0	9.4	10.2	11.1	12.1	13.3	14.6	16.1
88.5	9.5	10.3	11.2	12.3	13.4	14.8	16.3
89.0	9.6	10.4	11.4	12.4	13.6	14.9	16.4
89.5	9.7	10.5	11.5	12.5	13.7	15.1	16.6
90.0	9.8	10.6	11.6	12.6	13.8	15.2	16.8
90.5	9.9	10.7	11.7	12.8	14.0	15.4	16.9
91.0	10.0	10.9	11.8	12.9	14.1	15.5	17.1
91.5	10.1	11.0	11.9	13.0	14.3	15.7	17.3
92.0	10.2	11.1	12.0	13.1	14.4	15.8	17.4

Height (cm)	-3 SD	-2 SD	-1 SD	Median	1 SD	2 SD	3 SD
92.5	10.3	11.2	12.1	13.3	14.5	16.0	17.6
93.0	10.4	11.3	12.3	13.4	14.7	16.1	17.8
93.5	10.5	11.4	12.4	13.5	14.8	16.3	17.9
94.0	10.6	11.5	12.5	13.6	14.9	16.4	18.1
94.5	10.7	11.6	12.6	13.8	15.1	16.6	18.3
95.0	10.8	11.7	12.7	13.9	15.2	16.7	18.5
95.5	10.8	11.8	12.8	14.0	15.4	16.9	18.6
96.0	10.9	11.9	12.9	14.1	15.5	17.0	18.8
96.5	11.0	12.0	13.1	14.3	15.6	17.2	19.0
97.0	11.1	12.1	13.2	14.4	15.8	17.4	19.2
97.5	11.2	12.2	13.3	14.5	15.9	17.5	19.3
98.0	11.3	12.3	13.4	14.7	16.1	17.7	19.5
98.5	11.4	12.4	13.5	14.8	16.2	17.9	19.7
99.0	11.5	12.5	13.7	14.9	16.4	18.0	19.9
99.5	11.6	12.7	13.8	15.1	16.5	18.2	20.1
100.0	11.7	12.8	13.9	15.2	16.7	18.4	20.3
100.5	11.9	12.9	14.1	15.4	16.9	18.6	20.5
101.0	12.0	13.0	14.2	15.5	17.0	18.7	20.7
101.5	12.1	13.1	14.3	15.7	17.2	18.9	20.9
102.0	12.2	13.3	14.5	15.8	17.4	19.1	21.1
102.5	12.3	13.4	14.6	16.0	17.5	19.3	21.4
103.0	12.4	13.5	14.7	16.1	17.7	19.5	21.6
103.5	12.5	13.6	14.9	16.3	17.9	19.7	21.8
104.0	12.6	13.8	15.0	16.4	18.1	19.9	22.0
104.5	12.8	13.9	15.2	16.6	18.2	20.1	22.3
105.0	12.9	14.0	15.3	16.8	18.4	20.3	22.5
105.5	13.0	14.2	15.5	16.9	18.6	20.5	22.7
106.0	13.1	14.3	15.6	17.1	188	20.8	23.0
106.5	13.3	14.5	15.8	17.3	19.0	21.0	23.2
107.0	13.4	14.6	15.9	17.5	19.2	21.2	23.5
107.5	13.5	14.7	16.1	17.7	19.4	21.4	23.7
108.0	13.7	14.9	16.3	17.8	19.6	21.7	24.0
108.5	13.8	15.0	16.4	18.0	19.8	21.9	24.3
109.0	13.9	15.2	16.6	18.2	20.0	22.1	24.5
109.5	14.1	15.4	16.8	18.4	20.3	22.4	24.8
110.0	14.2	15.5	17.0	18.6	20.5	22.6	25.1
110.5	14.4	15.7	17.1	18.8	20.7	22.9	25.4
111.0	14.5	15.8	17.3	19.0	20.9	23.1	25.7
111.5	14.7	16.0	17.5	19.2	21.2	23.4	26.0
112.0	14.8	16.2	17.7	19.4	21.4	23.6	26.2
112.5	15.0	16.3	17.9	19.6	21.6	23.9	26.5
113.0	15.1	16.5	18.0	19.8	21.8	24.2	26.8
113.5	15.3	16.7	18.2	20.0	22.1	24.4	27.1
114.0	15.4	16.8	18.4	20.2	22.3	24.7	27.4
114.5	15.6	17.0	18.6	20.5	22.6	25.0	27.8
115.0	15.7	17.2	18.8	20.7	22.8	25.2	28.1
115.5	15.9	17.3	19.0	20.9	23.0	25.5	28.4
116.0	16.0	17.5	19.2	21.1	23.3	25.8	28.7
116.5	16.2	17.7	19.4	21.3	23.5	26.1	29.0
117.0	16.3	17.8	19.6	21.5	23.8	26.3	29.3
117.5	16.5	18.0	19.8	21.7	24.0	26.6	29.6
118.0	16.6	18.2	19.9	22.0	24.2	26.9	28.9
118.5	16.8	18.4	20.1	22.2	24.5	27.4	30.3
119.0	16.9	18.5	20.3	22.4	24.7	27.4	30.6
119.5	17.1	18.7	20.5	22.6	25.0	27.7	30.9
120.0	17.3	18.9	20.7	22.8	25.2	28.0	31.2

Calculating a child's weight for height

- Locate the appropriate table for boys or girls.
- Locate 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 height of the child.

MINISTRY OF HEALTH

ALGORITHM FOR PULMONARY TB DIAGNOSIS IN CHILDREN

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

Examine the child and check for:
- Temparature >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 abormal 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

Printed with the support of USAID through the Tuberculosis Accelerated Response and Care (TB ARC) Activity
July 2016

MINISTRY OF HEALTH

REGIMEN FOR TREATMENT OF TB IN CHILDREN

TB disease category	Recommended regimen	
	Intensive phase	Continuation phase
All forms of TB (Except TB meningitis and TB of the bones and joints)	2 months RHZE	4 months RH
TB meningitis, TB of the bones and joints	2 months RHZE	10 months RH
Drug resistant TB	Refer to a DR TB specialist and inform CTLC	

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

Weight band (Kgs)	Number of Tablets				
	Intensive Phase			Continuation Phase	
	RHZ (75/50/150mg)	E(100mg)	How to reconstitute the medicines	RH(75/50mg)	How to reconstitute the medicines
Less than 2kg	1/4	1/4	Dissolve **one (1)** tablet of RHZ in **20 ml** of safe drinking water. Once fully dissolved, add the completely crushed **one (1)** tablet of Ethambutol and give **5ml (1/4)** of this solution measured with a syringe	1/4	Dissolve **one (1)** tablet of RH in **20 ml** of safe drinking water. Once fully dissolved, give **5ml (1/4)** of this solution measured with a syringe
2-2.9	1/2	1/2	Dissolve **one (1)** tablet of RHZ in **20 ml** of safe drinking water. Once fully dissolved, add the completely crushed **one (1)** tablet of Ethambutol and give **10ml (1/2)** of this solution measured with a syringe	1/2	Dissolve **one (1)** tablet of RH in **20 ml** of safe drinking water. Once fully dissolved, give **10ml (1/2)** of this solution measured with a syringe
3-3.9	3/4	3/4	Dissolve **one (1)** tablet of RHZ in **20 ml** of safe drinking water. Once fully dissolved, add the completely crushed **one (1)** tablet of Ethambutol and give **15ml (3/4)** of this solution measured with a syringe	3/4	Dissolve **one (1)** tablet of RH in **20 ml** of safe drinking water. Once fully dissolved, give **15ml (3/4)** of this solution measured with a syringe

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

Weight band (Kgs)	Number of Tablets				
	Intensive Phase			Continuation Phase	
	RHZ (75/50/150mg)	E(100mg)	How to reconstitute the medicines	RH(75/50mg	How to reconstitute the medicines
4 - 7.9	1	1	Dissolve the tablet(s) of RHZ in **20 m**l of safe drinking water. Once fully dissolved, add the completely crushed tablet(s) of Ethambutol and give **ALL** of this solution to the child	1	Dissolve the tablet(s) of RH in **20 ml** of safe drinking water. Once fully dissolved give **ALL** of this solution to the child
8 - 11.9	2	2		2	
12 - 15.9	3	3		3	
16 - 24.9	4	4		4	
25kg and above	Use adult dosages and preparations				

DOSAGES FOR A CHILD ABOVE 25KGS: ADULT FORMULATION DOSAGE TABLE

Weight band (Kgs)	Number of tablets	
	Intensive Phase	Continuation Phase
	RHZE (150/75/400/275mg)	RH(150/75mg)
25 - 39.9	2	2
40 - 54.9	3	3
55kg and above	4	4

PYRIDOXINE (VITAMIN B6) DOSING FOR CHILDREN ON TB TREATMENT

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

Printed with the support of USAID through the Tuberculosis Accelerated Response and Care (TB ARC) Activity
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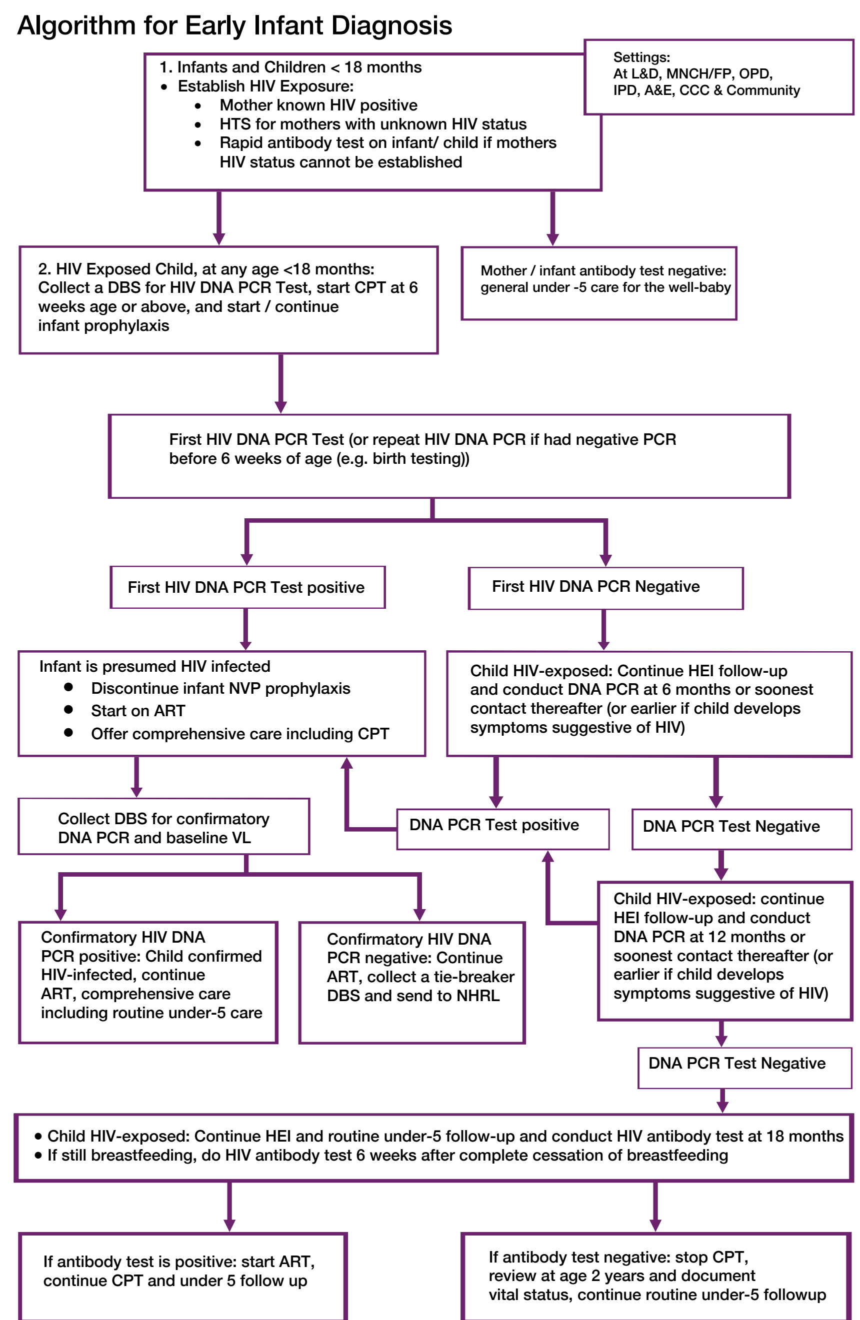
HIV CARE FOR CHILDREN: EID AND DUAL PROPHYLAXIS

Algorithm for Early Infant Diagnosis



ARV Prophylaxis for HIV-Exposed Infants

TABLE :49

	Infant Prophylaxis	Maternal ART
HIV exposed Infant	- 12 weeks of infant prophyslaxis: - AZT + NVP for 6 weeks, followed by NVP for 6 weeks - DBS for PCR at first contact, following EID algorithm	If mother not on ART, initiate ART as soon as possible (preferably same day)
1. If a breastfeeding mother refuses to start ART but agrees to provide infant ARV prophylaxis, provide 6 weeks of AZT+NVP, followed by daily NVP until 6 weeks after complete cessation of breasfeeding. Perform DBS for PCR at first contact with the infant and follow the EID algorithm Note: If child has contraindication or unable to tolerate NVP or AZT then continue the other drug to complete a total of 12 weeks of infant prophylaxis		

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

TABLE :50

Age/Weight	Dosing of NVP (10mg/mL) OD	Dosing of AZT (10mg/mL) BD
Birth to 6 weeks		
Birth weight < 2000 g	2 mg /kg per dose	4 mg /kg per dose
Birth weight 2000-2499 g	10 mg (1 ml of syrup)	10 mg (1 ml of syrup)
Birth weight ≥2500 g	15 mg (1.5 ml of syrup)	15 mg (1.5 ml of syrup)
> 6weeks to 12 weeks		
Any weight	20 mg (2 ml of syrup)	60 mg (6 ml of syrup)

>12 weeks refer to the two tables below

NVP Dosing for Infant Prophylaxis beyond 12 Weeks of Age*

TABLE :51

Age	Dosing of NVP (10mg/mL) Once Daily
12 weeks - 14 weeks	20 mg (2 ml of syrup)
15 weeks - 6 months	25 mg (2 ml of syrup)
7 months - 9 months	30 mg (2 ml of syrup)
10 months - 12 months	40 mg (2 ml of syrup)
>12 months	50 mg (2 ml of syrup)

AZT Dosing for Infant Prophylaxis beyond 12 Weeks of Age*

TABLE :52

Weight	Dosing of AZT: (10mg/mL) Twice Daily
3.0-5.9 kg	6 ml of syrup
6.0-9.9 kg	9 ml of syrup
10.0-13.9 kg	12 ml of syrup
14.0-19.9 kg	15 ml of syrup

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

Integrated MCH Flow Chart

ENTRY

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
  - DBS
  - TB screen
- If Child HIV Positive
  - on ART
- If 6 months EBF
- If > 6 months appropriate complementary feeding

Antenatal

- Birth plan
- Antenatal profile
- Tetanus Toxoid
- Mother knows HIV status
- Mother on ART
- Retested after 3 months
- IPTp in malaria endemic areas
- Blood Pressure (BP)
- Oedema
- TB Screening
- Anaemia
- Slept under LLIN in malaria endemic areas
- Danger signs during pregnancy assessed
- De-worming

If NO to any → Counsel and take necessary action → To appropriate MCH services

If Yes to all → Positive encouragement with appropriate counseling → To appropriate MCH services

Service offered at MCH

1. MCH Handbook
2. ANC - PMTCT
3. PNC
4. FP
5. HIV Testing/ DBS & Psycho-social support
   - -adherence
   - -disclosure
   - -condom 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 sugar, 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, IFAS

EXIT

Abbreviations

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

MINISTRY OF HEALTH

Division of Family Health

Neonatal, Child and Adolescent Health Unit (NCAHU)