# Assess and classify the sick child aged 2 months up to 5 years

## ASSESS AND CLASSIFY



## TREAT THE CHILD



## FOLLOW-UP



## COUNSEL THE MOTHER

# Assess, classify and treat the sick young infant aged up to 2 months

## ASSESS AND CLASSIFY



## TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER



## FOLLOW-UP



# Annex

## Annex 1: Skin and Mouth Conditions



## Annex 2: WHO Paediatric Staging For HIV



## Annex 3: Where referral is not possible

# Assess and classify the sick child aged 2 months up to 5 years

## ASSESS AND CLASSIFY

### ASSESS

### CLASSIFY

### IDENTIFY TREATMENT

**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:

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

**CHECK FOR GENERAL DANGER SIGNS**

***Ask:***

- Is the child **able to drink or breastfeed?**
- Does the child vomit everything?
- Has the child had convulsions during the present illness? If Yes:
  - How many times? ___
  - How long? ___minutes

***Look:***

- See if the child is lethargic or unconscious.
- Is the child convulsing now?

**URGENT attention**

| | | |
|---|---|---|
| • Any general danger sign | ***Pink:*** **VERY SEVERE DISEASE** | ■ **Give Diazepam if convulsing now**<br>■ **Quickly complete the assessment**<br>■ **Give any pre-referral treatment immediately**<br>■ **Treat to prevent low blood sugar**<br>■ **Keep the child warm**<br>■ **Refer URGENTLY.** |

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

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

***If yes, ask:***

- For how long?

***Look, listen, feel*:***

- Count the breaths in one minute.
- Look for chest indrawing.
- Look and listen for stridor.
- Look and listen for wheezing.

CHILD MUST BE CALM

**If wheezing and either fast breathing or chest indrawing:**

Give a trial of rapid acting inhaled bronchodilator for up to three times 15-20 minutes apart. Count the breaths and look for chest indrawing again, and then classify.

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

***Classify COUGH or DIFFICULT BREATHING***

| | | |
|---|---|---|
| • Any general danger sign or<br>• Stridor in calm child. | ***Pink:***<br>**SEVERE PNEUMONIA OR VERY SEVERE DISEASE** | ■ **Give first dose of Benzylpenicillin**<br>■ **Refer URGENTLY to hospital**** |
| • Fast breathing or<br>• Chest indrawing | ***Yellow:***<br>**PNEUMONIA** | ■ **Give oral Amoxicillin for 5 days**<br>■ If wheezing (even if it disappeared after giving rapidly acting bronchodilator) give an oral bronchodilator for 5 days***<br>■ Soothe the throat and relieve the cough with a safe remedy<br>■ If coughing for more than 2 weeks or if having recurrent wheezing, assess for TB or asthma<br>■ Advise mother when to return immediately<br>■ Follow-up on day 3 |
| No signs of pneumonia or very severe disease. | ***Green:***<br>**COUGH OR COLD** | ■ If wheezing (even if it disappeared after giving rapidly acting bronchodilator) give an oral bronchodilator for 5 days<br>■ Soothe the throat and relieve the cough with a safe remedy<br>■ If coughing for more than 2 weeks or if having recurrent wheezing, assess for TB or asthma.<br>■ Advise mother when to return immediately<br>■ Follow-up on day 5 if not improving |

** If pulse oximeter is available, determine oxygen saturation and refer if < 90%.*

***If referral is not possible, manage the child as described in **Integrated Management of Newborn and Childhood Illness**, Treat the Child, Annex: Where Referral is Not Possible*

****In settings where inhaled bronchodilator is not available, oral salbutamol may be the second choice.*

## Does the child have diarrhoea?

***If yes, ask:***

- For how long?
- Is there blood in the stool?

***Look and feel:***

- Look at the child's general condition. 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?

***Classify DIARRHOEA***

**for DEHYDRATION**

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

**and if diarrhoea 14 days or more**

| | | |
|---|---|---|
| • Dehydration present. | ***Pink:***<br>**SEVERE PERSISTENT DIARRHOEA** | ■ Treat dehydration before referral unless the child has another severe classification<br>■ Refer to hospital |
| • No dehydration. | ***Yellow:***<br>**PERSISTENT DIARRHOEA** | ■ Advise the mother on feeding a child who has PERSISTENT DIARRHOEA<br>■ Give multivitamins and minerals for 14 Days<br>■ Give Zinc for 10 days<br>■ Follow-up on day 5 |

**and if blood in stool**

| | | |
|---|---|---|
| • Blood in the stool. | ***Yellow:***<br>**DYSENTERY** | ■ **Give Ciprofloxacin for 3 days**<br>■ Follow-up on day 3 |

## Does the child have fever?

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

***If yes:***

***Then ask:***

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

***Look and feel:***

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

**Do mRDT if NO general danger sign, stiff neck or severe classification.**

**If the child has measles now or within the last 3 months:**

- Look for mouth ulcers. Are they deep and extensive?
- Look for pus draining from the eye.
- Look for clouding of the cornea.

***Classify FEVER***

| | | |
|---|---|---|
| • Any general danger sign or<br>• Stiff neck. | ***Pink:***<br>**VERY SEVERE FEBRILE DISEASE** | ■ **Give first dose of Artesunate, if not available give Quinine for severe malaria**<br>■ **Give first dose of Benzylpenicillin**<br>■ **Treat the child to prevent low blood sugar**<br>■ **Give one dose of Paracetamol in clinic for high fever (38.5°C or above)**<br>■ **Refer URGENTLY to hospital** |
| • mRDT POSITIVE.*** | ***Yellow:***<br>**MALARIA** | ■ **Give LA**<br>■ **Give one dose of Paracetamol in clinic for high fever (38.5°C or above)**<br>■ Advise mother when to return immediately<br>■ Follow-up on day 3 if fever persists<br>■ If fever is present every day for more than 7 days, refer for assessment |
| • mRDT NEGATIVE<br>• Other cause of fever PRESENT. | ***Green:***<br>**FEVER:**<br>**NO MALARIA** | ■ **Give one dose of Paracetamol in clinic for high fever (38.5°C or above)**<br>■ **Give appropriate antibiotic treatment** for any identified bacterial cause of fever<br>■ Advise mother when to return immediately<br>■ Follow-up on day 2 if fever persists<br>■ If fever is present every day for more than 7 days, refer for assessment |

***If MEASLES now or within last 3 months, Classify***

| | | |
|---|---|---|
| • Any general danger sign or<br>• Clouding of cornea or<br>• Deep or extensive mouth ulcers. | ***Pink:***<br>**SEVERE COMPLICATED MEASLES****** | ■ **Give Vitamin A treatment**<br>■ **Give first dose of an appropriate antibiotic**<br>■ **If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment**<br>■ **Refer URGENTLY to hospital** |
| • Pus draining from the eye or<br>• Mouth ulcers. | ***Yellow:***<br>**MEASLES WITH EYE OR MOUTH COMPLICATIONS****** | ■ **Give Vitamin A treatment**<br>■ **If pus draining from the eye, treat eye infection with Tetracycline eye ointment**<br>■ If mouth ulcers, treat with gentian violet<br>■ Follow-up on day 3 |
| • Measles now or within the last 3 months. | ***Green:***<br>**MEASLES** | ■ **Give Vitamin A treatment** |

** These temperatures are based on axillary temperature.*

** 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

****If no malaria test available and no obvious cause of fever: Classify as MALARIA.*

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

## Does the child have an ear problem?

***If yes, ask:***

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

***Look and feel:***

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

***Classify EAR PROBLEM***

| | | |
|---|---|---|
| • Tender swelling behind the ear. | ***Pink:*** **MASTOIDITIS** | ■ **Give first dose of an appropriate antibiotic**<br>■ **Give first dose of Paracetamol for pain**<br>■ **Refer URGENTLY to hospital** |
| • Pus is seen draining from the ear and discharge is reported for less than 14 days, or<br>• Ear pain. | ***Yellow:*** **ACUTE EAR INFECTION** | ■ **Give Amoxicillin for 5 days**<br>■ **Give Paracetamol for pain**<br>■ Dry the ear by wicking<br>■ Follow-up on day 5 |
| • Pus is seen draining from the ear and discharge is reported for 14 days or more. | ***Yellow:*** **CHRONIC EAR INFECTION** | ■ Dry the ear by wicking<br>■ Follow-up on day 5 |
| • No ear pain and<br>No pus seen draining from the ear. | ***Green:*** **NO EAR INFECTION** | ■ No treatment |

## THEN CHECK FOR ACUTE MALNUTRITION

Do mRDT for every child who has signs of malnutrition

***CHECK FOR MALNUTRITION***

LOOK AND FEEL:

Look for signs of acute malnutrition

- Determine WFH/L* ___ z-score.
- Look for oedema
- Measure MUAC**____ cm in a child 6 months or older.

**If WFH/L less than -3 z-score or MUAC less than 11.5 cm or oedema + or ++ , then:**

- Check for any medical complication present:
  - Any general danger signs
  - Any severe classification
  - Anorexia, lack of appetite
  - High fever (> 39 oC)
  - Hypothermia
  - Vomiting
  - Moderate - to - severe skin lesions
- If child is 6 months or older, offer RUTF*** to eat. Is the child:
  - Not able to finish RUTF portion?
  - Able to finish RUTF portion?
- If child is less than 6 months:
  - Does the child have a breastfeeding problem?

***CLASSIFY NUTRITIONAL STATUS***

| | | |
|---|---|---|
| • Oedema +++ OR<br>• WFH/L less than -3 z-score or MUAC less than 11.5 cm or oedema + or ++ AND any one of the following:<br>  ◦ Danger sign or Medical complication present or<br>  ◦ Not able to finish RUTF OR<br>• Referral from OTP due to various reasons | ***Pink:***<br>**COMPLICATED SEVERE ACUTE MALNUTRITION** | ■ **Give first dose of Benzyl penicillin**<br>■ **Treat the child to prevent low blood sugar**<br>■ **Keep the child warm**<br>■ **Refer URGENTLY to hospital** |
| • MUAC less than 11.5 cm OR<br>• WFH/L less than -3 z-score OR<br>• Bilateral pitting oedema + or ++<br>AND<br>  ◦ Able to finish RUTF<br>  ◦ No medical complications<br>  ◦ Clinicaly well | ***Yellow:***<br>**UNCOMPLICATED SEVERE ACUTE MALNUTRITION** | ■ **Give Amoxicillin for 5 days**<br>■ Give vitamin A, folic acid albendazole (if aged > 1 year and has not had a dose in previous 6 months)<br>■ Refer to OTP for RUTF<br>■ Give LA if mRDT positive<br>■ Re-establish effective breast feeding for a child aged less than 6 months<br>■ Counsel the mother on how to feed the child<br>■ Assess for possible TB infection<br>■ Advise when to return immediately<br>■ Follow up on day 7 |
| • MUAC 11.5cm up to 12.5 cm OR<br>• WFH/L between -3 Z and -2 Z scores.OR<br>• Discharged from Severe Acute Malnutrition in OTP or NRU | ***Yellow:***<br>**MODERATE ACUTE MALNUTRITION** | ■ Refer to nearest supplementary feeding(**SF)** Centre<br>■ Where there is no **SF** centre:<br>  ◦ Give appropriate dosages of Albendazole and Vitamin A if not given in the previous 6 months.<br>  ◦ Give feeding recommendations as on mother's card<br>■ Give LA if mRDT positive<br>■ Assess for possible TB infection<br>■ Advise mother to seek HTC for herself (and the child)<br>■ If feeding problem, follow up on day 7<br>■ Advise mother when to return immediately<br>■ Follow up on day 14 |
| • MUAC 12.5 cm or more OR<br>• WFH/L - 2 Z scores or more. | ***Green:***<br>**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<br>■ Advise mother to return for monthly growth monitoring<br>■ If feeding problem, follow-up on day 7 |

*WFH/L is Weight-for- height / Weight-for- Length is determined 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 therapeutic feeding and conducting the appetite test for all children with WFH/L less than -3 z-score or oedema + or ++ or MUAC less than 11.5 cm.

## THEN CHECK FOR ANAEMIA

***LOOK AND FEEL***

- Look for palmar pallor. Is it:
  - Severe palmar pallar?
  - Some palmar pallor? If yes, do mRDT*
  - No palmar pallor?

***CLASSIFY ANAEMIA***

| | | |
|---|---|---|
| Severe palmar pallor | ***Pink:*** **SEVERE ANAEMIA** | ■ ***Refer URGENTLY to hospital with blood donor***<br>■ ***Give first dose of Artesunate, if not available give quinine*** |
| Some palmar pallor | ***Yellow:*** **ANAEMIA** | ■ Give iron**<br>■ Give LA if mRDT is positive<br>■ Give Albendazole if child has not had a dose in the previous 6 months<br>■ Advise mother when to return immediately<br>■ Follow up on day 14 |
| No palmar pallor | ***Green:*** **NO ANAEMIA** | ■ If child is less than 2 years old, assess the child's feeding and counsel the mother according to the feeding recommendations<br>■ If feeding problem, follow-up on day 7 |

* A child with anaemia could be having malaria as well. If mRDT is positive, give recommended antimalarial.

** If child has severe acute malnutrition and recieving RUTF, DO NOT give iron because there is already adequate amount of iron in RUTF.

## THEN ASSESS FOR HIV INFECTION*

**1. Routinely ascertain the mother's HIV status for all children under 5 year of age seen at the underfive clinic. regardless of whether the child is healthy or sick:**

**2. Routine ascertainment of HIV exposure status for children under 5 years of age**

**3. Review mother's health passport (page 6) for the latest HIV test result**

**Initiate a new HIV rapid test**

- o F**or the mother,** - if she has never been tested or tested negative before delivery
- o F**or any child,** - if the mother is not available / has died
  - If the child is sick, even if the mother was tested negative during pregnancy or delivery. (This is to rule out new HIV infection in the child).

In case a caretaker declines HIV test for a child, The child should be treated for the presenting condition and health worker should emphasise on the benefits of HIV Testing.

***ASK***

- Has the mother and/or child had an HIV test?

**IF YES: Then note mother's and/or child's HIV status:-**

- Mother's HIV status:
  - POSITIVE or
  - NEGATIVE
- Child's HIV status:
  - DNA-PCR** test POSITIVE or
  - DNA-PCR test NEGATIVE or
  - HIV rapid test POSITIVE or
  - HIV rapid test NEGATIVE

**IF NO: Mother and child status unknown, then TEST mother.**

- If positive, then test the child.

**If mother is HIV positive and child is negative or unknown, ASK:**

- Was the child breastfeeding at the time or 6 weeks before the test?
- Is the child breastfeeding now?
- If breastfeeding ASK: Is the mother on ARVs? Has the child taken ARV prophylaxis?

**Classify HIV Status**

| | | |
|---|---|---|
| • Positive DNA-PCR test at 6 weeks to 12 months of age OR<br>• Positive HIV rapid test in a child 12 months or older. OR<br>• Positive HIV rapid test in a child less than 12 months with presumed severe HIV disease (PSHD) | ***Yellow:*** **HIV INFECTED** | ■ Refer to ART Clinic for initiation of treatment and follow up<br>■ Perform confirmatory test according to age<br>■ Manage child's presenting illness<br>■ Ensure mother is tested and started on ART if positive<br>■ Assess the child's feeding and provide appropriate counselling to the mother<br>■ Advise the mother on home care |
| • Mother HIV-positive AND negative DNA-PCR test in Child breastfeeding or if only stopped less than 6 weeks ago OR<br>• Mother HIV-positive, child not yet tested OR<br>• Positive HIV test in a child less than 12 months old without signs of PSHD | ***Yellow:*** **HIV EXPOSED** | ■ Refer to HIV Care Clinic (HCC) for management and follow up<br>■ Treat, counsel and follow up existing infection<br>■ Assess for TB and start INH preventive therapy*** if no active TB<br>■ Do DNA-PCR test as soon as possible to confirm HIV status** in a child less than 24 months of age.<br>■ Ensure mother is started on ART<br>■ Assess the child's feeding and provide appropriate counselling to the mother<br>■ Advise the mother on home care |
| HIV test not done for mother or infant | ***Green:*** **HIV INFECTION STATUS UNKNOWN** | Encourage HIV testing where it is available |
| Negative HIV test in mother or child | ***Green:*** **NOT HIV INFECTED** | Treat, counsel and follow up existing infection |

* A child who is on ART does not need to enter this HIV box.

** DNA-PCR is a onfirmatory test in a child less than 24 months of age. If DNA-PCR is negative, Perform rapid test at 12 months of age and at 24 months of age (6 weeks after the breatfeeding has stopped); If HIV rapid test is positive in a child with presumed severe HIV disease (PSHD) start ART and do a DNA-PCR test as soon as possible.

*** INH prophylaxis should only be given if child is HIV positive and living in high TB burden district or if under 5 years of age in all districts living with pulmonary TB patient.

## ASSESS MOUTH AND GUM CONDITIONS

(FOR CHILDREN ON ART, HIV EXPOSED OR CONFIRMED HIV INFECTION)

**Does the child have mouth ulcers?**

***If yes ask:***

- Is the child unable to eat due to painful mouth ulcers ?

***Look:***

- Look for mouth or gum ulcers?
  - are they deep or extensive?
- Look for oral thrush

***Classify*** **MOUTH or GUM CONDITIONS**

| | | |
|---|---|---|
| • Deep or extensive ulcers of mouth or gums or<br>• Unable to eat due to painful mouth ulcers. | ***Pink:***<br>**SEVERE GUM OR MOUTH INFECTION** | ■ **Refer URGENTLY to hospital**<br>■ **If possible, give first dose of Acyclovir pre-referral**<br>■ Start Metronizadole if referral is not possible *(see doses in annex 3)*<br>■ If the child is on anti retroviral therapy this may be a drug reaction so refer to secondary level for assessment |
| • Ulcers of mouth or gums<br>• Oral thrush | ***Yellow:***<br>**GUM OR MOUTH ULCERS** | ■ Show the mother how to clean the ulcers with saline or peroxide or sodium bicarbonate solution<br>■ If lips or anterior gums are involved, give Acyclovir, if not possible refer (s*ee doses in annex 3)*<br>■ If the child received Cotrimoxazole or anti retroviral drugs or Isoniazid (INH) prophylaxis for TB within the last month, this may be a drug rush especially if the child has a skin rash so refer<br>■ If thrush, teach the mother to treat oral thrush at home *(see annex 3)*<br>■ Provide pain relief<br>■ Follow up on day 3 |
| • No ulcers of the mouth or gums | ***Green:***<br>**NO GUM OR MOUTH ULCERS** | ■ Treat, counsel and follow up existing infections<br>■ Advise the mother about feeding and her health |

# THEN CHECK THE CHILD'S IMMUNIZATION, VITAMIN A AND DEWORMING STATUS

| IMMUNIZATION SCHEDULE: | AGE | VACCINE | | | | |
|---|---|---|---|---|---|---|
| | **Birth** | BCG | OPV- 0* | | | **VITAMIN A SUPPLEMENTATION**<br>Give every child a dose of Vitamin A every six months from the age of 6 months. Record the dose on the child's chart. |
| | **6 weeks** | DPT-HepB-Hib 1 | OPV-1 | Rotavirus-1 | PCV-1 | |
| | **10 weeks** | DPT-HepB-Hib 2 | OPV-2 | Rotavirus-2 | PCV-2 | |
| | **14 weeks** | DPT-HepB-Hib 3 | OPV-3 and IPV** | | PCV-3 | **ROUTINE WORM TREATMENT**<br>Give every child Albendazole every 6 months from the age of one year. Record the dose on the child's card. |
| | **9 months** | Measles -Rubella 1 | | | | |
| | **15 Months** | Measles - Rubella 2 | | | | |

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

** IPV is an Injectable Polio Vaccine

***ASSESS OTHER PROBLEMS:***

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

## HIV TESTING AND INTERPRENTING RESULTS

**HIV testing is RECOMMENDED** for:

- All children born to HIV-positive mothers
- All children that do not have a known test result and you do not know and cannot ascertain the mother's status (If you do not know the mother's status, test the mother first, if possible)

| Types of HIV Tests | | |
|---|---|---|
| | **What does the test detect?** | **How to interpret the test?** |
| **SEROLOGICAL TESTS** (HIV rapid tests) | These tests **detect antibodies made by immune cells in response to HIV**. They do not detect the HIV virus itself. | HIV antibodies pass from the mother to the child. Most antibodies have gone by 12 months of age, but in some instances they do not disappear until the child is 18 months of age. This means that a positive HIV rapid test in children under 12 months of age is not a reliable way to check for infection of the child. |
| **VIROLOGICAL TESTS** (DNA-PCR test) | These tests **directly detect the presence of the HIV virus** or products of the virus in the blood. | Positive DNA-PCR tests reliably detect HIV infection at any age, even before the child is 12 months old. If the tests are negative and the child has been breastfeeding, this does not rule out infection. The baby may have just become infected. Tests should be done six weeks or more after breastfeeding has completely stopped—only then do the tests reliably rule out infection. |

**For HIV exposed children >12 months**, a positive HIV antibody test result means the child is infected.

**For HIV exposed children <12 months of age**:

- If DNA-PCR test is available, test from 6 weeks of age.
  - A positive result means the child is infected.
  - A negative result means the child is not infected, but could become infected if they are still breast feeding.
- If DNA-PCR test is not available, use HIV rapid antibody test. A positive result is consistent with the fact that the child has been exposed to HIV, but does not tell us if the child is definitely infected.

| Interpreting the HIV Antibody Test Results in a Child < 12 Months of Age | | |
|---|---|---|
| Breastfeeding status | POSITIVE (+) test | NEGATIVE (-) test |
| NOT BREASTFEEDING, and has not in last 6 weeks | HIV EXPOSED and/or HIV infected - Manage as if they could be infected. Repeat test at 12 months. | HIV negative Child is not HIV infected |
| BREASTFEEDING | HIV EXPOSED and/or HIV infected - Manage as if they could be infected. Repeat test at 12 months or once breastfeeding has been discontinued for more than 6 weeks. | Child can still be infected by breastfeeding. Repeat test once breastfeeding has been discontinued for more than 6 weeks. |

# TREAT THE CHILD

## CARRY OUT THE TREATMENT STEPS IDENTIFIED ON THE *ASSESS AND CLASSIFY* CHART

### TEACH THE MOTHER 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 the reason for giving the drug to the child.**
- **Demonstrate how to measure a dose.**
- **Watch the mother practise measuring a dose by herself.**
- **Ask the mother to give the first dose to her 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 understanding before she leaves the clinic.**

### *Give an appropriate oral antibiotic*

**FOR PNEUMONIA, ACUTE EAR INFECTION:**

- FIRST-LINE ANTIBIOTIC: _____AMOXICILLIN*
- SECOND-LINE ANTIBIOTIC: ___ ERYTHROMYCIN

| **AGE or WEIGHT** | **AMOXICILLIN** *Give twice daily for 5 days for Pneumonia and Acute ear infection* | | **ERYTHROMYCIN** *Give four times daily for 5 days* | |
|---|---|---|---|---|
| | **ADULT TABLET** 250 mg | **SYRUP** 125 mg/5 ml | **ADULT TABLET** 250 mg | **SYRUP** 125 mg/5 ml |
| 2 months up to 12 months (4 - <10 kg) | 1 | 10 ml | 1/2 | 5 ml |
| 12 months up to 3 years (10 - <14 kg) | 2 | 20 ml | 1 | 10 ml |
| 3 years up to 5 years (14 - 19 kg) | 3 | | 1 | 10 ml |

* Amoxicillin is the recommended first-line drug of choice in the treatment of pneumonia due to its efficacy and increasing high resistance to cotrimoxazole. Give 40mg/kg twice daily for 5 days if child has pneumonia or acute ear infection in high HIV setting such as Malawi.

FOR CHOLERA:

- Give ERYTHROMYCIN

| **AGE or WEIGHT** | **ERYTHROMYCIN** *Give four times daily for 3 days* | **ERYTHROMICIN** *Give four times daily for 3 days* |
|---|---|---|
| | **TABLET** 250mg | **SYRUP** 125mg/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 ml |
| 12 months up to 5 years (10 - 19 kg) | 1 | 10 ml |

**FOR DYSENTERY**

- Give Ciprofloxacin

| **AGE** | **Ciprofloxacin** 15mg/kg/day - 2 times a day for 3 days | |
|---|---|---|
| | 250mg TABLET (Dose in Tablets) | 500 mg TABLET (Dose in Tablets) |
| Less than 6 months | 1/2 | 1/4 |
| 6 months up to 5 years | 1 | 1/2 |

## TEACH THE MOTHER 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.**

### *Give oral Salbutamol*

- **For PNEUMONIA With WHEEZING or NO PNEUMONIA: COUGH OR COLD with WHEEZING**
  - After a trial of rapid acting bronchodilator give maintenance dose as follows.

| AGE | SALBUTAMOL (4mg tablet) *Give three times daily for 5 days.* |
|---|---|
| 2 months up to 12 momths (4kg -<10) | 1/4 |
| 12 months up to 5 years (10kg-<19) | 1/2 |

### *Give inhaled Salbutamol for wheezing*

**USE OF A SPACER***

A spacer is a way of delivering the bronchodilator drugs effectively into the lungs. No child under 5 years should be given an inhaler without a spacer. A spacer works as well as a nebuliser if correctly used.

- From salbutamol metered dose inhaler (100 µg/puff) give 2 puffs.
- Repeat up to 3 times every 15 minutes before classifying pneumonia.

**Spacers can be made in the following way:**

- Use a 500ml drink bottle or similar.
- Cut a hole in the bottle base in the same shape as the mouthpiece of the inhaler. This can be done using a sharp knife.
- Cut the bottle between the upper quarter and the lower 3/4 and disregard the upper quarter of the bottle.
- Cut a small V in the border of the large open part of the bottle to fit to the child's nose and be used as a mask.
- Flame the edge of the cut bottle with a candle or a lighter to soften it.
- In a small baby, a mask can be made by making a similar hole in a plastic (not polystyrene) cup.
- Alternatively commercial spacers can be used if available.

**To use an inhaler with a spacer:**

- Remove the inhaler cap. Shake the inhaler well.
- Insert mouthpiece of the inhaler through the hole in the bottle or plastic cup.
- The child should put the opening of the bottle into his mouth and breath in and out through the mouth.
- A carer then presses down the inhaler and sprays into the bottle while the child continues to breath normally.
- Wait for three to four breaths and repeat.
- For younger children place the cup over the child's mouth and use as a spacer in the same way.

** If a spacer is being used for the first time, it should be primed by 4-5 extra puffs from the inhaler.*

### *Give oral antimalarial for MALARIA*

**FIRST LINE ANTIMALARIAL: LA**

**SECOND LINE ANTIMALARIAL: AS+AQ**

- **Lumefantrine-Artemether (LA)**
  - Give the first dose of Lumefantrine-Artermether (LA) in the clinic and observe for one hour. If the child vomits within an hour repeat the dose.
  - Give second dose at home after 8 hours.
  - Then twice daily for further two days as shown below.
  - Lumefantrine-Artermether should be taken with food.

**Dosage Schedule for Lumefantrine-Artemether (LA 120mg/20mg) Tablets**

| AGE or WEIGHT | Lumefantrine-Artemether (LA 120mg/20mg) Tablets Day 1 | | Lumefantrine-Artemether (LA 120mg/20mg) Tablets Day 2 | | Lumefantrine-Artemether (LA 120mg/20mg) Tablets Day 3 | |
|---|---|---|---|---|---|---|
| | Start | After 8 hrs | AM | PM | AM | PM |
| 5 up to 15 kg (Less than 3 Years) | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 up to 25 kg (3 to 8 Years) | 2 | 2 | 2 | 2 | 2 | 2 |

**If Artesunate Amodiaquine (AS+AQ)**

- Give first dose in the clinic and observe for an hour, if a child vomits within an hour repeat the dose.
- Then daily for two days as per table below using the fixed dose combination.

Dosage schedule for Amodiaquine-Artesunate (AS+AQ) Number of tablets.

| AGE or WEIGHT | AS+AQ Give once a day for 3 days (25mg AS/ 67.5mg AQ) | | | AS+AQ Give once a day for 3 days (50mg AS/ 135mg AQ) | | |
|---|---|---|---|---|---|---|
| | Day 1 | Day 2 | Day 3 | Day 1 | Day 2 | Day 3 |
| 5.0 - 8.9kg (2 up to 12 months) | 1 | 1 | 1 | | | |
| 9.0 - 17.9kg (12 months up to 5 years) | | | | 1 | 1 | 1 |

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

- Give paracetamol every 6 hours until high fever or ear pain is gone.

| AGE or WEIGHT | PARACETAMOL TABLET (500 mg) |
|---|---|
| 2 months up to 3 years (4 - <14 kg) | 1/4 |
| 3 years up to 5 years (14 - <19 kg) | 1/2 |

## TEACH THE MOTHER 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.**

### *Give Cotrimoxazole for PCP prophylaxis and Isoniazid for TB prevention*

**Give Cotrimoxazole and Isoniazid to HIV infected or HIV Exposed children**

- Give once daily from the age of 6 weeks until definitely ruled out in exposed chidren and for life if HIV confimmed

| WEIGHT | Cotrimoxazole 120mg dispersible tablets | | Isoniazid (INH) 100mg tablets | |
|---|---|---|---|---|
| | AM | PM | AM | PM |
| 3 - 5.9 kg | 0 | 1 | 0 | 1/2 |
| 6 - 9.9 kg | 1 | 1 | 0 | 1 |
| 10 - 13.9 kg | 1 | 1 | 0 | 11/2 |
| 14 - 19.9 kg | 2 | 2 | 0 | 2 |
| 20 - 24.9 kg | 2 | 2 | 0 | 21/2 |

### *Give Iron**

- Give one dose daily for 14 days.

| AGE or WEIGHT | IRON/FOLATE TABLET | IRON SYRUP |
|---|---|---|
| | Ferrous sulfate 200 mg + 250 µg Folate (60 mg elemental iron) | Ferrous fumarate 100 mg per 5 ml (20 mg elemental iron per ml) |
| 2 months up to 4 months (4 - <6 kg) | | 1.00 ml (< 1/4 tsp.) |
| 4 months up to 12 months (6 - <10 kg) | | 1.25 ml (1/4 tsp.) |
| 12 months up to 3 years (10 - <14 kg) | 1/2 tablet | 2.00 ml (<1/2 tsp.) |
| 3 years up to 5 years (14 - 19 kg) | 1/2 tablet | 2.5 ml (1/2 tsp.) |

**Do not give iron to a child with sickle cell anaemia**

*** Children with severe acute malnutrtion who are receiving ready-to-use therapeutic food (RUTF) should not be given Iron.**

### *Give Albendazole or Mebendazole*

Give single dose in the clinic if the child has not had a dose in the previous 6 months

| AGE | Albendazole | Mebendazole |
|---|---|---|
| | Tablet | Tablet |
| < 2 years | 200mg | 500mg |
| > 2 years | 400mg | 500mg |

### *Give First Line Anti retro viral Therapy (ARVs)*

**FOR CHILDREN ELIGIBLE FOR ART**

**LEAD IN (STARTER PACK) AND CONTINUATION PHASE OF FIRST LINE REGIMEN IN CHILDREN**

- **AZT/ 3TC/ NVP (Zidovudine 60mg/ Lamivudine 30mg/ Nevirapine 50mg).** This regimen is used for ART initiation in children
- Give starter pack daily for the first 15 days followed by daily continuation doses.
- Offer adherence counselling for compliance.
- Below are formulations used in standard first and second line ART regimens

| Drug | Tablets per tin | 3 - 3.9kg | | 4 - 5.9kg | | 6 - 9.9kg | | 10 -13.9kg | | 14 -9.9kg | | 20- 24.9kg | | 25- 29.9kg | | 30 - 34.9kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| NVP | 60 | 1 | 1 | 1 | 1 | 1 ½ | 1 ½ | 2 | 2 | 2 ½ | 2 ½ | 3 | 3 | | | | |
| AZT / 3TC | 60 | 1 | 1 | 1 | 1 | 1 ½ | 1 ½ | 2 | 2 | 2 ½ | 2 ½ | 3 | 3 | | | | |
| AZT / 3TC / NVP | 60 | 1 | 1 | 1 | 1 | 1 ½ | 1 ½ | 2 | 2 | 2 ½ | 2 ½ | 3 | 3 | | | | |
| ABC / 3TC | 60 | 1 | 1 | 1 | 1 | 1 ½ | 1 ½ | 2 | 2 | 2 ½ | 2 ½ | 3 | 3 | | | | |
| LPV / r liquid / tabs | 60 | 1 ml | 1 ml | 1.5ml | 1.5ml | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| LPV / r pellets (in caps) | 120 | 2 | 2 | 2 | 2 | | | | | | | | | | | | |
| EFV | 90 | | | | | | | 0 | 1 | 0 | 1 ½ | 0 | 1 ½ | 0 | 2 | 0 | 2 |

### *Give Vitamin A for treatment of measles*

- **Give 3 doses**
- **Give first dose in clinic**
- **Give mother one dose to give at home the next day and mother to return after 2 weeks for third dose**

| AGE GROUP | VITAMIN A DOSE 200,000 IU | |
|---|---|---|
| Up to 6 months | 1/4 capsule | 50,000 IU |
| 6 months up to 12 months | 1/2 capsule | 100,000 IU |
| 12 months up to 60 months | 1 capsule | 200,000 IU |

## TEACH THE MOTHER TO TREAT LOCAL INFECTIONS AT HOME

- **Explain to the mother what the treatment is and why it should be given.**
- **Describe the treatment steps listed in the appropriate box.**
- **Watch the mother as she does the first treatment in the clinic (except for remedy for cough or sore throat).**
- **Tell her how often to do the treatment at home.**
- **If needed for treatment at home, give mother the tube of tetracycline ointment or a small bottle of gentian violet.**
- **Check the mothers understanding before she leaves the clinic.**

### *Treat eye infection with Tetracycline eye ointment*

- **Clean both eyes 4 times daily**.
  - Wash hands.
  - Use clean cloth and water to gently wipe away pus.
- **Then apply tetracycline eye ointment in both eyes 4 times daily.**
  - Squirt a small amount of ointment on the inside of the lower lid.
  - Wash hands again.
- **Treat until there is no pus discharge.**
- **Do not put anything else in the eye.**

### *Clear the ear by dry wicking and give ear drops*

- **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.

### *Treat for mouth ulcers with Gentian Violet (GV)*

- **Treat for mouth ulcers twice daily.**
  - Wash hands.
  - Wash the child's mouth with clean soft cloth wrapped around the finger and wet with salt water.
  - Paint the mouth with half-strength gentian violet (0.25% dilution).
  - Wash hands again.
  - Continue using GV for 48 hours after the ulcers have been cured.
  - Give paracetamol for pain relief.

### *Soothe the throat, relieve the cough with a safe remedy*

- **Safe remedies to recommend:**
  - Breast milk for a breastfed infant.
  - Fresh fruit Juice
  - Water (More fluids)
- **Harmful remedies to discourage:**
  - Cough Syrups
  - Antihistaminics
  - Codein containing medicines
  - Comercial soft drinks
  - Local herbs

### *Treat thrush with Nystatin*

**Treat thrush four times daily for 7 days**

- Wash hands
- Wet a clean soft cloth with salt water and use it to wash the child’s mouth
- Instill nystatin 1ml four times a day
- Avoid feeding for 20 minutes after medication
- If breastfed check mother’s breasts for thrush. If present treat with nystatin
- Advise mother to wash breasts after feeds. If bottle fed advise change to cup and spoon
- Give paracetamol if needed for pain

## GIVE THESE TREATMENTS IN THE CLINIC ONLY

- **Explain to the mother why the drug is given.**
- **Determine the dose appropriate for the child's weight (or age).**
- **Use a sterile needle and sterile syringe when giving an injection.**
- **Measure the dose accurately.**
- **Give the drug as an intramuscular injection.**
- **If child cannot be referred, follow the instructions provided.**

### *Give an Intramuscular Antibiotic*

**GIVE TO CHILDREN BEING REFERRED URGENTLY**

- Give the first dose of intramuscular Benzyl Penicillin and **refer chid urgently** to hospital

**BENZYL PENICILLIN**

- IF REFERRAL IS NOT POSSIBLE OR DELAYED, repeat the Benzyl Penicillin injection every 6 hours and Gentamicin Once Daily
- Where there is a strong suspicion of meningitis, the dose of Benzyl Penicillin can be increased 2 times**.**

| AGE or WEIGHT | BENZYL PENICILLIN 50,000 units/kg/dose every 6 Hours | BENZYL PENICILLIN Dose in mls | Gentamycin **Give Gentamicin 7.5 mg per kg Once a day.** Dose in mls (2mls/40mg/vial) |
|---|---|---|---|
| 2 up to 4 months (4 - <6 kg) | 250,000 IU | 0.3 mls | 0.5 - 1.0 ml |
| 4 up to 9 months (6 -<8 kg) | 350,000 IU | 0.4 mls | 1.1 - 1.4 mls |
| 9 up to 12 months (8 - <10 kg) | 450,000 IU | 0.5 mls | 1.5 - 1.8 mls |
| 12 months up to 3 years (10 - <14 kg) | 600,000 IU | 0.6 mls | 1.9 - 2.6 mls |
| 3 years up to 5 years (14 - 19 kg) | 800,000 IU | 0.8 mls | 2.8 - 3.5 mls |

### *Give Intramuscular Artesunate or Suppository Artesunate for Severe Malaria*

**FOR CHILDREN BEING REFERRED WITH VERY SEVERE FEBRILE DISEASE:**

- Check which pre-referral treatment is available in your clinic (rectal artesunate suppositories, artesunate injection or quinine)
- Check the formulation available in your clinic.
- Artesunate suppository: Insert first dose of the suppository and refer child urgently
- Intramuscular artesunate or quinine: Give first dose and refer child urgently to hospital.

**IF REFERRAL IS NOT POSSIBLE:**

- For artesunate suppository:
  - Give first dose of suppository
  - Repeat the same dose of suppository every 24 hours until the child can take oral antimalarial.
  - Give full dose of oral antimalarial as soon as the child is able to take orally
- For artesunate injection:
  - Give first dose of artesunate intramuscular injection
  - Repeat dose after 12 hrs and daily until the child can take orally
  - Give full dose of oral antimlarial as soon as the child is able to take orally.
- • **Dosage for Artesunate**

| AGE or WEIGHT | Intramuscular Artesunate | Rectal Artesunate Suppository | |
|---|---|---|---|
| | 60mg vial (20mg/ml) 2.4mg/kg | 50mg suppositories Dosage 10mg/kg | 200mg suppositories Dosage 10mg/kg |
| **2 months up to 4 months (4 - <6kg)** | **1/2** | **1** | |
| **4 months up to 12 months (6 - <10kg)** | **1ml** | **2** | |
| **12 months up to 2 years (10 - < 12kg)** | **1.5ml** | **2** | |
| **2 years up to 3 years (12 - < 14kg)** | **1.5ml** | **3** | **1** |
| **3 years up to 5 years (14 - 19kg0** | **2ml** | **3** | **1** |

## GIVE THESE TREATMENTS IN THE CLINIC ONLY

### *Give Intramuscular Quinine for Severe Malaria*

**FOR CHILDREN BEING REFERRED WITH VERY SEVERE FEBRILE DISEASE:**

- Check which pre-referral treatment is available in your clinic (rectal artesunate suppositories, artesunate injection or quinine)
- Check the formulation available in your clinic.
- Intramuscular quinine: Give first dose and refer child urgently to hospital.

**IF REFERRAL IS NOT POSSIBLE:**

For quinine:

- Give first dose of intramuscular quinine and **refer child urgently to hospital**
- The child should remain lying down for one hour.
- Repeat the quinine injection at 4 and 8 hours later, and then every 12 hours until the child is able to take an oral antimalarial. Do not continue quinine injections for more than 1 week..
- Give LA for 3 days if the child did not take it in the last 14 days Or ASAQ if child had a full course of LA in the last 4 days

**HOW TO GIVE INTRAMUSCULAR QUININE**

- Weight the child (where there is no scale, estimate weight of the child by
- using the following: Age (in years) 2 + 8 = weight in kg)
- Use a 10ml sterile syringe, draw up 5mls of sterile water for injection, then into the same syringe draw up 300 mg (1ml) from an ampoule of quinine. The syringe now contains 50 mg per ml.
- Give 10mg (0.2ml) per kg body weight by intramuscular injection into the upper outer thigh. If the volume to be injected exceeds 3ml, give half into each thigh.
  - **An example of body weights and dose (ml) of injection is given below.**
  - **Dosage of Parenteral Quinine per Body Weight.**

| **BODY WEIGHT** | **Quinine** 50mg/ml | | | | |
|---|---|---|---|---|---|
| | Amount in ml | Number of injection sites | BODY WEIGHT | Amount in ml | Number of injection sites |
| <5kg | 1.0 | 1 | 17.6-20kg | 4.0 | 2 |
| 5-7.5kg | 1.5 | 1 | 20.1-22.5kg | 4.5 | 2 |
| 7.6-10kg | 2.0 | 1 | 22.6-25kg | 5.0 | 2 |
| 10.1-12.5kg | 2.5 | 1 | 25.1-27.5kg | 5.5 | 2 |
| 12.6-15kg | 3.0 | 1 | 27.6-30kg | 6.0 | 2 |
| 15.1-17.5kg | 3.5 | 2 | | | |

### *Give Diazepam to Stop Convulsions*

- Turn the child to his/her side and clear the airway. Avoid putting things in the mouth.
- Give 0.5mg/kg diazepam injection solution per rectum using a small syringe without a needle (like a tuberculin syringe) or using a catheter.
- Check for low blood sugar, then treat or prevent.
- If convulsions have not stopped after 10 minutes repeat diazepam dose.

| **AGE or WEIGHT** | **DIAZEPAM** 10mg/2mls: Dose 0.5 mg/kg Give Rectally |
|---|---|
| 1 month - 4 months (3- <6 kg) | 0.5 ml (2.5 mg) |
| 4 months up to 12months (6-<10 kg) | 1.0 ml (5 mg) |
| 12 months up to 3 years (10-<14 kg) | 1.25 ml (6.25 mg) |
| 3 years up to 5 years (14-19 kg) | 1.5 ml (7.5 mg) |

### *Treat the Child to Prevent Low Blood Sugar*

- **If the child is able to breastfeed:**
  - Ask the mother to breastfeed the child.
- **If the child is not able to breastfeed but is able to swallow:**
  - Give expressed breast milk.
  - If neither of these is available, give sugar water*.
  - Give 30 - 50 ml of milk or sugar water* before departure.
- **If the child is not able to swallow:**
  - Give 50 ml of milk or sugar water* by nasogastric tube.
  - If no nasogastric tube available, give 1 teaspoon of sugar moistened with 1-2 drops of water sublingually and repeat doses every 20 minutes to prevent relapse

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

## GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

***(See FOOD advice on COUNSEL THE MOTHER chart)***

### *Plan A: Treat Diarrhoea at Home*

**Counsel the mother on the 4 Rules of Home Treatment:**

1. **Give Extra Fluid**
2. **Give Zinc Supplements (age 2 months up to 5 years)**
3. **Continue Feeding**
4. **When to Return.**

1. ***GIVE EXTRA FLUID*** **(as much as the child will take)**
   - **TELL THE MOTHER:**
     - Breastfeed frequently and for longer at each feed.
     - If the child is exclusively breastfed, give ORS or clean water in addition to breast milk.
     - If the child is not exclusively breastfed, give one or more of the following: ORS solution, food-based fluids (such as soup, rice water, and yoghurt drinks), or clean water.
   - **It is especially important to give ORS at home when:**
     - *the child has been treated with Plan B or Plan C during this visit.*
     - *the child cannot return to a clinic if the diarrhoea gets worse.*
   - **TEACH THE MOTHER HOW TO MIX AND GIVE ORS. GIVE THE MOTHER 2 PACKETS OF ORS TO USE AT HOME.**
   - **SHOW THE MOTHER 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 |

   **Tell the mother to:**
     - Give frequent small sips from a cup.
     - If the child vomits, wait 10 minutes. Then continue, but more slowly.
     - Continue giving extra fluid until the diarrhoea stops.
2. ***GIVE ZINC*** **(age 2 months up to 5 years)**
   - **TELL THE MOTHER HOW MUCH ZINC TO GIVE (20 mg tab):**

| | |
|---|---|
| 2 months up to 6 months | 1/2 tablet daily for 10 days |
| 6 months or more | 1 tablet daily for 10 days |

   - **SHOW THE MOTHER HOW TO GIVE ZINC SUPPLEMENTS**
     - Infants - dissolve tablet in a small amount of expressed breast milk, ORS or clean water in a cup.
     - Older children - tablets can be chewed or dissolved in a small amount of water
3. **Follow up in 5 days if child does not improve**
4. **CONTINUE FEEDING** (exclusive breastfeeding if age less than 6 months): REFER to COUNSEL THE MOTHER CHART
5. ***WHEN TO RETURN:*** **REFER to COUNSEL THE MOTHER CHART.**

### *Plan B: Treat Some Dehydration with ORS*

**In the clinic, give recommended amount of ORS over 4-hour period**

- **DETERMINE AMOUNT OF ORS TO GIVE DURING FIRST 4 HOURS**

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

  ** Use the child's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the child's weight (in kg) times 75.*
  - If the child wants more ORS than shown, give more.
  - For infants under 6 months who are not breastfed, also give 100 - 200 ml clean water during this period if you use standard ORS. This is not needed if you use new low osmolarity ORS.
- **SHOW THE MOTHER HOW TO GIVE ORS SOLUTION.**
  - Give frequent small sips from a cup.
  - If the child vomits, wait 10 minutes. Then continue, but more slowly.
  - Continue breastfeeding whenever the child wants.
- **AFTER 4 HOURS:**
  - Reassess the child and classify the child for dehydration.
  - Select the appropriate plan to continue treatment.
  - Begin feeding the child in clinic.
- **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 packets to complete rehydration. Also give her 2 packets as recommended in **Plan A**.
  - Explain the 4 Rules of Home Treatment:
  - GIVE ZINC (age 2 months up to 5 years)

1. **GIVE EXTRA FLUID**
2. **CONTINUE FEEDING (exclusive breastfeeding if age less than 6 months)**

} **Refer to Plan A for recommended fluids**

**REFER to COUNSEL THE MOTHER CHART**

3. **WHEN TO RETURN**

## GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

### *Plan C: Treat Severe Dehydration Quickly*

**FOLLOW THE ARROWS. IF ANSWER IS "YES", GO ACROSS. IF "NO", GO DOWN.**

**See food advise on counsel the mother card**

**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, normal saline), divided as follows

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

  * 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→

- **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 or give ORS by naso-gastric tube.

NO ↓

Are you trained to use a naso-gastric (NG) tube for rehydration? YES→

- **Start rehydratin by 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 while waiting for transfer:**
  - 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 ↓

Can the child drink? YES→

NO ↓

Refer URGENTLY to hospital for IV or NG treatment

**NOTE:**

- If the child is not referred to hospital, observe the child at least 6 hours after rehydration to be sure the mother can maintain hydration giving the child ORS solution by mouth.

NOTE: If a child has severe malnutrition do not give IV fluids instead give ReSoMal 5ml/kg every 30 minutes for the first 2 hours orally or by nasogastric tube, much more slowly than you would when rehydrating a well-nourished child

# FOLLOW-UP

## 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 and treat the new problem as on the *ASSESS AND CLASSIFY* chart.**

### *PNEUMONIA*

**On day 3:**

Check the child for general danger signs.
Assess the child for cough or difficult breathing. } See *ASSESS & CLASSIFY* chart.

**Ask:**

- Is the child breathing slower?
- Is there chest indrawing?
- Is there less fever?
- Is the child eating better?

**Treatment:**

- If ***chest indrawing or a general danger sign***, Give Benzyl Penicillin and Gentamycin IM and refer urgently to Hospital.
- If ***breathing rate, fever and eating are the same***, change to the second-line antibiotic and advise the mother to return in 2 days or refer if second line antibiotic is not available.
- If ***breathing slower, less fever, or feeding better***, complete the 5 days of antibiotic.

### *PERSISTENT DIARRHOEA*

**On day 5:**
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. Treat for dehydration if present. 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 ag

### *DYSENTERY*

**On day 3:**

- Assess the child for diarrhoea. > See *ASSESS & CLASSIFY* chart.

**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.
- If *number of stools, amount of blood in stools, fever, abdominal pain, or eating are worse or the same,* REFER to hospital.

**Exceptions - if the child:**
- is less than 12 months old, or
- was dehydrated on the first visit, } REFER to hospital.

- If ***fewer stools, less blood in the stools, less fever, less abdominal pain, and eating better***, continue giving ciprofloxacin until finished.

**Ensure that mother understands the oral rehydration method fully and that she also understands the need for an extra meal each day for a week.**

### *MALARIA*

**On day 3 if fever persists:**
Do a full reassessment of the child. > See *ASSESS & CLASSIFY* chart.

DO NOT REPEAT the Rapid Diagnostic Test if it was positive on the initial visit.

**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 there is ***no other apparent cause of fever***:
  - If fever has been present for 7 days, refer for assessment.
  - Do a microscopy to look for malaria parasites. If parasites are present and the child has finished a full course of the first line antimalarial, give the second-line antimalarial, if available, or refer the child to a hospital.
  - If there is no other apparent cause of fever and you do not have a microscopy to check for parasites, refer the child to a hospital.

## GIVE FOLLOW-UP CARE

### *FEVER: NO MALARIA*

**On day 2 if fever persists:**
Do a full reassessment of the child. > See *ASSESS & CLASSIFY* chart.
Repeat the malaria test.

**Treatment:**

- If the child has ***any general danger sign or stiff neck***, treat as VERY SEVERE FEBRILE DISEASE.
- If a child has a ***positive malaria test***, give first-line oral antimalarial. Advise the mother to return in 3 days if the fever persists.
- If the child has any ***cause of fever other than malaria***, provide treatment.
- If there is ***no other apparent cause*** of fever:
  - If the fever has been present for 7 days, refer for assessment.

### *MEASLES WITH EYE OR MOUTH COMPLICATIONS, GUM OR MOUTH ULCERS, OR THRUSH*

**On day 3:**
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 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 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 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 nystatine for a total of 7 days.

### *EAR INFECTION*

**On day 5:**
Reassess for ear problem. > See *ASSESS & CLASSIFY* chart.
Measure the child's temperature.

**Treatment:**

- If there is ***tender swelling behind the ear or high fever (38.5°C or above)***, refer URGENTLY to hospital.
- ***Acute ear infection: if ear pain 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 and giving quinolone drops three times a day. Encourage her to continue.
- 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 all of it before stopping.

### *FEEDING PROBLEM*

**On day 5:**
Reassess feeding. > See questions at the top of the *COUNSEL* chart.
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 child back again.
- If the child has moderate acute malnutrition, ask the mother to return 14 days after the initial visit to measure the child's weight gain.

### *ANAEMIA*

**On day 14:**

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

## GIVE FOLLOW-UP CARE

### *UNCOMPLICATED SEVERE ACUTE MALNUTRITION*

**On day 7 or during regular follow up:**
Assess the child using the same measurement (WFH/L or MUAC) that was used on the initial visit to determine if the child still has severe acute malnutrition.

- If WFH/L, weigh the child, measure his or her height or length and determine if WFH/L is still less than -3z-score.
- If MUAC, measure and determine if still less than 11.5 cm.
- Check the child for oedema of both feet.
- Check for any medical complication (any general danger sign or severe classification or Anorexia, lack of appetite, high fever, hypothermia, vomiting, severe dehydration, severe anaemiamoderate - to - severe skin lesions and pneumonia with indrawing).
- Check the child's appetite by offering ready-to use therapeutic food if child is 6 months or older.

**Treatment:**

If child still has WFH/L less than -3 z-score or MUAC is less than 11.5 cm or oedema of both feet with a medical complication or fails
appetite test, and is classified as COMPLICATED SEVERE ACUTE MALNUTRITION, give pre-referral treatment and refer urgently to
hospital.
If the child has no signs to clasify as UNCOMPLICATED SEVERE ACUTE MALNUTRITION, praise the mother and continue with ready-to use therapeutic food for at least two weeks of no oedema of both feet.
If the child is still classified as UNCOMPLICATED SEVERE ACUTE MALNUTRITION, counsel the mother on feeding ready-to use therapeutic food. Ask the mother to return again in 7 days. The the child should continue to be regularly seen until the oedema disappears or his or her WFH/L is no longer below -2 z-score curve or MUAC less than 12.5 cm.

**When to stop giving ready-to-use therapeutic food treatment:**
The decision to stop nutritional treatment should be based on the same anthropometric measurements or oedema of both feet that were
used to decide if a child had severe acute malnutrition as follows:

- WFH/L is equal or more than -2 z-score and has had no oedema for at least 2 weeks,
- MUAC is equal or more than 12.5cm and has had no oedema for at least 2 weeks.

### *MODERATE ACUTE MALNUTRITION*

**On day 14:**
Assess the child using the same measurement (WFH/L or MUAC) that was used on the initial visit to determine if the child still has moderate acute malnutrition:

- If WFH/L, weigh the child, measure his or her height or length and determine if WFH/L is still between -3z-score and -2z scores curve.
- If MUAC, measure and determine if still between 11.5 cm and 12.5 cm.
- Check the child for oedema of both feet.

Reassess feeding. See questions at the top of the COUNSEL 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 one month. Continue to see the child monthly until the child is feeding well and gaining weight regularly or his or her WFH/L is no longer below -2 z-score curve or MUAC < 12.5 cm.

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

# GIVE FOLLOW-UP CARE FOR HIV INFECTION

## *HIV EXPOSED*

**Follow up on day 14, then monthly for 3 months, then every three months.**

At each follow-up visit follow these instructions:

- Ask the mother: Does the child have any problems?
- Do a full assessment including checking for mouth or gum problems, treat, counsel and follow up any new problem
- Provide routine child health care: Vitamin A, deworming, immunization, and feeding assessment and counselling on feeding practices according to the reccomendations in training unit "Counsel the mother".
- Continue cotrimoxazole prophylaxis
- Ask about the mother's health. Provide HIV counselling and testing and referral if necessary
- Plan for the next follow-up visit

**HIV testing:**

- If new HIV test result became available since the last visit, reclassify the child for HIV according to the test result.
- Recheck child's HIV status six weeks after cessation of breastfeeding. Reclassify the child according to the test result.

**If child is confirmed HIV infected**

- Any child with confirmed HIV infection should be enrolled in chronic HIV care and initiated on ART.
- Continue follow-up according to instructions for CONFIRMED HIV INFECTION NOT ON ART

**If child is confirmed uninfected**

- Stop co-trimoxazole
- Counsel mother on preventing HIV infection through breastfeeding and about her own health

**Note:** Any HIV exposed child with confirmed symptomatic HIV infection, should be registered in the Care and Treatment Unit with good services for chronic care for HIV infected children.

## *HIV INFECTED*

**Follow up on day 14, then monthly for 3 months in the first year and then three monthly**

At each follow-up visit follow these instructions:

- Ask the mother: Does the child have any problems?
- Do a full assessment including checking for mouth or gum problems, treat, counsel and follow up any new problem
- Follow up feeding
- Continue cotrimoxazole prophylaxis if indicated
- Start or continue ART
- Home care:
  - Counsel the mother about any new or continuing problems
  - If appropriate, put the family in touch with organizations or people who could provide support
  - Advise the mother about hygiene in the home, in particular when preparing food
  - Plan for the next follow-up visit

# COUNSEL THE MOTHER

## FEEDING

### *Assess appetite if achild 6 months or older has WFH/L less than -3 z-score or oedema + or ++ or MUAC less than 11.5cm*

**Appetite is assessed on the initial visit and at each follow-up visit to the health facility. Arrange a quiet corner where the child and mother can take their time to get accustomed to eating the RUTF. Usually the child will eat the RUTF portion in 30 minutes:**

**Explain to the mother:**
What is ready-to-use therapeutic food (RUTF).
The purpose of assessing the child's appetite.

**Advise the mother to:**
Wash hands before giving the RUTF.
Sit with the child on the lap and gently offer the child RUTF to eat.
Encourage the child to eat the RUTF without feeding by force.
Offer plenty of clean cup of water to drink when the child is eating the RUTF.

Check if the child is able to finish or not able to finish the amount of RUTF given:
Observe the child eating the RUTF for 30 minutes and decide if the child passes or fails the test.
**Passes Appetite Test**: The child eats at least 2 teaspoons of RUTF without hesitation and is eager for more.
**Fails Appetite Test**: The child is reluctatant to eat the 2 teaspoonful of RUTF or refuses the RUTF

### *Assess Feeding if Child is Less Than 2 Years Old, Has MODERATE ACUTE MALNUTRITION, ANAEMIA, HIV INFECTED, or HIV EXPOSED*

Ask questions about the child's usual feeding and feeding during this illness. Compare the mother's answers to the ***Feeding Recommendations*** for the child's age.

**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?

- **Does the child take any other food or fluids?**
  - 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 HIV INFECTION fails to gain weight or loses weight between monthly measurements, ASK:**
  - How large are servings?
  - Does the child receive his own serving?
  - Who feeds the child and how?
  - What foods are available in the home?
- **During this illness, has the child's feeding changed?**
  - If yes, how?

**In addition, for HIV EXPOSED child:**

- **ASK:**
  - **Do you take ARV drugs? 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 breastfeeding has stopped)? Does he or she take all doses, missed doses, does not take medication?**

# FEEDING

## *Feeding Recommendations During Sickness and Health*

**These feeding recommendations are FOR ALL CHILDREN including HIV EXPOSED who are on ARV prophylaxis and their mothers on ARV therapy or prophylaxis.**

### Up to 6 months

- Breastfeed as often as the child wants, day and night,at least 8 times in 24 hours.
- DO NOT give other foods or fluids. This is especially important for infants of HIV-positive mothers. Mixed feeding increases the risk of HIV mother-tochild transmission when compared to exclusive breastfeeding.
- 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.

### 6 up to 12 monts

- Breastfeed as often as the child wants.
- Give adequate servings of freshly prepared nutritious foods from six groups for example:
  - Enriched mgaiwa phala with groundnuts, or beans or peas or eggs or cooking oil
    In addition give mashed fruit or fresh fruit juice with the meal
  - Mashed nsima or cassava or rice or potatoes with beans or peas and vegetables made with groundnuts flour or cooking oil.
  - 3 times per day if breastfed
  - 5 times per day if not breastfed.
- Take child for vitamin A supplementation
- Offer 1-2 snacks each day when the child seems hungry.

### 12 months up to 2 years

- Breastfeed as often as the child wants.
- Give adequate servings of freshly prepared nutritious foods from the six food groups as recommended in the 6-12 months category or family foods 5 times per day. Or
- Family foods 3 or 4 times per day
- Offer 1-2 snacks between meals.
- Give vitamin A supplementation

**HIV EXPOSED child:**

- Breastfeed for at least the first 12 months of life. Only stop BF when you can provide an adequate and safe diet without breastfeeding.
- Give 1-2 cups (250 - 500 ml) of boiled, then cooled, full cream milk or infant formula.
- Give milk with a cup, not a bottle.

### 2 years and older

- Give family foods at 3-4 times each day. Also, twice daily, give nutritious food between meals, such as:
  - Chikondamoyo, banana, pawpaw, tangerine, mangoes.
- Food combinations should be based on the six food groups.
- Offer 1-2 snacks between meals.
- If your child refuses a new food, offer "tastes" several times. Show that you like the food. Be patient.
- Talk with your child during a meal, and keep eye contact.

** A good daily diet should be adequate in quantity and include an energy-rich food (for example, thick cereal with added oil); meat, fish, eggs, or pulses; and fruits and vegetables.*

## *Counsel the Mother About Feeding Problems*

**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 breastfeeding, assess breastfeeding. (See *YOUNG INFANT* chart.)**
- **As needed, show the mother correct positioning and attachment for breastfeeding.**
- **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 breastfeeds 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.
  - Finish prepared milk within an hour.
- **If the mother is using a bottle to feed the child:**
  - Recommend substituting a cup for bottle.
  - Show the mother how to feed the child with a cup.
- **If the child is not feeding well during illness, counsel the mother to:**
  - Breastfeed more frequently and for longer if possible.
  - Use soft, varied, appetizing, favourite foods to encourage the child to eat as much as possible, and offer frequent small feedings.
  - Clear a blocked nose if it interferes with feeding.
  - Expect that appetite will improve as child gets better.
- **If the child has a poor appetite:**
  - Plan small, frequent meals.
  - Give milk rather than other fluids except where there is diarrhoea with some dehydration.
  - Give snacks between meals.
  - Give high energy foods.
  - Check regularly.
- **If the child has sore mouth or ulcers:**
  - Give soft foods that will not burn the mouth, such as eggs, mashed potatoes, pumpkin or avocado.
  - Avoid spicy, salty or acid foods.
  - Chop foods finely.
  - Give cold drinks or ice, if available.

## *Feeding Recommendations For a Child Who Has PERSISTENT DIARRHOEA*

- If still breastfeeding, give more frequent, longer breastfeeds, day and night.
- If taking other milk:
  - replace with increased breastfeeding OR
  - replace with fermented milk products, such as yoghurt OR
  - replace half the milk with nutrient-rich semisolid food.
- For other foods, follow feeding recommendations for the child's age.

## FLUIDS

### *Advise the Mother to Increase Fluid During Illness*

- **FOR ANY SICK CHILD:**
  - If child is breastfeeding, 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. For example, give soup, rice water, yoghurt drinks or clean water.

- **FOR CHILD WITH DIARRHOEA:**
  - Giving extra fluid can be lifesaving. Give fluid according to Plan A or Plan B on *TREAT THE CHILD* chart.

# WHEN TO RETURN

## *Advise the mother when to return to health worker*

**FOLLOW-UP VISIT:** Advise the mother to come for follow-up at the earliest time listed for the child's problems.

| If the child has: | Return for follow-up in: |
|---|---|
| PNEUMONIA<br>FEVER: NO MALARIA, if fever persists | 2 days |
| ■ DYSENTERY<br>■ MALARIA, if fever persists<br>■ MEASLES with eye or mouth complications<br>■ MOUTH OR GUM ULCERS OR THRUSH | 3 days |
| ■ PERSISTENT DIARRHOEA<br>■ ACUTE EAR INFECTION<br>■ CHRONIC EAR INFECTION<br>■ COUGH OR COLD, if not improving | 5 days |
| ■ FEEDING PROBLEM | 7 days |
| ■ ANAEMIA<br>■ MODERATE ACUTE MALNUTRITION | 14 days |

**NEXT WELL-CHILD VISIT:** Advise the mother to return for next immunization according to immunization schedule.


**WHEN TO RETURN IMMEDIATELY**

| Advise mother to return immediately if the child has any of these signs: | |
|---|---|
| Any sick child | ■ Not able to drink or breastfeed<br>■ Becomes sicker<br>■ Develops a fever |
| If child has COUGH OR COLD, also return if: | ■ Fast breathing<br>■ Difficult breathing |
| If child has Diarrhoea, also return if: | ■ Blood in stool<br>■ Drinking poorly |

## MOTHER'S HEALTH

### *Counsel the mother about her own health*

- If the mother is sick, provide care for her, or refer her for help.
- If she has a breast problem (such as engorgement, sore nipples, breast infection), provide care for her or refer her for help.
- Advise her to eat well to keep up her own strength and health.
- Check the mother's immunization status and give her tetanus toxoid if needed.
- Make sure she has access to:
  - Family planning
  - Counselling on STIs and HIV prevention.
- Encourage her to seek HIV counselling and Testing

# Assess, classify and treat the sick young infant aged up to 2 months

## ASSESS AND CLASSIFY

### ASSESS

**<u>DO A RAPID APRAISAL OF ALL WAITING INFANTS</u>**

**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.
  - if initial visit, assess the child as follows:

### CLASSIFY

**USE ALL BOXES THAT MATCH THE INFANT'S SYMPTOMS AND PROBLEMS TO CLASSIFY THE ILLNESS**

### IDENTIFY TREATMENT

## CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE, PNEUMONIA AND LOCAL INFECTION

***ASK:***

- Is the infant having difficulty in feeding?
- Has the infant had convulsions (fits)?

***LOOK AND FEEL:***

- Count the breaths in one minute. Repeat the count if 60 or more breaths per minute.
- Look for severe chest indrawing.

} YOUNG INFANT MUST BE CALM

- Convulsing now
- Measure axillary temperature.
- Look at the umbilicus. Is it red or draining pus?
- Look for skin pustules.
- Look at the infants movements. *If sleeping, ask the mother to wake him/her.*
  - Does the infant move on his/her own?
- *If the infant not moving, gently stimulate him/her.*
  - Does the infant not move at all?

***Classify ALL YOUNG INFANTS***

| | | |
|---|---|---|
| **Any one of the following signs**<br>• Not able to feed since birth, stopped feeding well or not feeding at all or<br>• Convulsions or<br>• Fast breathing (60 breaths per minute or more) in infants less than 7 days oldor<br>• Severe chest indrawing or<br>• Fever (38°C* or above) or<br>• Low body temperature (less than 35.5°C) or<br>• Movement only when stimulated or no movement at all. | ***Pink:***<br>**POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE** | ■ **Give first dose of intramuscular Benzylpenicllin and Gentamicin**<br>■ **Treat to prevent low blood sugar**<br>■ **Refer URGENTLY to hospital ****<br>■ **Advise/ teach the mother how to keep the infant warm on the way to the hospital** |
| • Fast breathing (60 breaths per minute or more) in infants 7 to 59 days old | ***Yellow:***<br>**PNEUMONIA** | ■ Give amoxicillin for 7 days.<br>■ Advise mother to give home care for the young infant.<br>■ Follow up on day 4 of treatment. |
| • Umbilicus red or draining pus<br>• Skin pustules | ***Yellow:***<br>**LOCAL INFECTION** | ■ **Give Amoxicillin for 5 days**<br>■ Teach mother to treat local infections at home.<br>■ Advise mother to give home care for the young infant.<br>■ Follow up on day 3. |
| • No signs of posible serious bacterial infection or very severe disease, pneumonia or local infection | ***Green:***<br>**POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE, PNEUMONIA OR LOCAL INFECTION UNLIKELY** | ■ Advise mother to give home care for the young infant. |

** These thresholds are based on axillary temperature.*

*** If referral is not possible, see **Integrated Management of Newborn and Childhood Illnesses**, Management of the sick young infant module, Annex 3 "Where referral is not possible".*

## CHECK FOR NEONATAL TETANUS

***ASK:***

- Was the young infant born at home?
- Any substance applied to the umbilical cord?
- Is Mother not immunized against tetanus?
- Is the infant having difficulty feeding?

***LOOK AND FEEL:***

- Look for lockjaw
- Look for stiff neck
- Is infant in opisthotonous position
- Does infant have sardonic smile
- Does infant have rigid abdomen
- Look for periods of apnoea
- Does infant have disphagia
- Look for dirt/ dung on umbilicus

***CLASSIFY*** **NEONATAL TETANUS**

| | | |
|---|---|---|
| • Difficulty feeding <u>or</u><br>• Lock jaw <u>or</u><br>• Stiff neck <u>or</u><br>• Opisthotonous position <u>or</u><br>• Sardonic smile <u>or</u><br>• Apnoenic attacks | ***Pink:***<br>**NEONATAL TETANUS** | ■ **Give first dose of intramuscular Benzylpenicllin**<br>■ **Give diazepam to control spasms**<br>■ **Minimise handling**<br>■ **Refer URGENTLY to hospital** |
| No signs of tetanus in the young infant | ***Green:***<br>**NO NEONATAL TETANUS** | ■ Advise the mother to give home care for the young infant and bring the infant for immunisation at appropriate times. |

## CHECK FOR JAUNDICE

***If jaundice present, ASK:***

- When did the jaundice appear first?

***LOOK AND FEEL:***

- Look for yellow eyes or skin
- Look at the young infant's palms and soles. Are they yellow?

***CLASSIFY*** **JAUNDICE**

| | | |
|---|---|---|
| • Any jaundice if age less than 24 hours <u>or</u><br>• Yellow palms and soles at any age | ***Pink:***<br>**SEVERE JAUNDICE** | ■ ***Treat to prevent low blood sugar***<br>■ ***Refer URGENTLY to hospital***<br>■ ***Advise mother how to keep the infant warm on the way to the hospital*** |
| • Yellow eyes and skin after 24 hours of age <u>and</u><br>• Palms and soles not yellow | ***Yellow:***<br>**JAUNDICE** | ■ Advise the mother to give home care for the young infant<br>■ Advise mother to return immediately if palms and soles appear yellow.<br>■ If the young infant is older than 3 weeks, refer to a hospital for assessment<br>Follow-up on day 2 |
| • Eyes, skin, palms and soles not yellow | ***Green:***<br>**NO JAUNDICE** | ■ Advise the mother to give home care for the young infant |

**THEN ASK: Does the young infant have diarrhoea*?**

***IF YES, LOOK AND FEEL:***

- Look at the young infant's general condition:
  Infant's movements
  - Does the infant move on his/her own?
  - Does the infant not 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)?
  - or slowly?

***Classify DIARRHOEA*** **for DEHYDRATION**

| | | |
|---|---|---|
| Two of the following signs:<br>• Movement only when stimulated or no movement at all<br>• Sunken eyes<br>• Skin pinch goes back very slowly. | ***Pink:***<br>**SEVERE DEHYDRATION** | If infant has no other severe classification:<br>■ Give fluid for severe dehydration (Plan C)<br>OR<br>■ If infant also has another severe classification:<br>○ ***Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way***<br>***Advise the mother to continue breastfeeding***<br>■ Teach the mother how to keep the infant warm on the way to the hospital |
| Two of the following signs:<br>• Restless and irritable<br>• Sunken eyes<br>• Skin pinch goes back slowly. | ***Yellow:***<br>**SOME DEHYDRATION** | • Give fluid and breast milk for some dehydration (Plan B)<br>OR<br>• **If infant has any severe classification:**<br>○ **Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way**<br>○ **Advise the mother to continue breastfeeding**<br>• Advise mother when to return immediately<br>• Follow-up on day 3 if not improving |
| Not enough signs to classify as some or severe dehydration. | ***Green:***<br>**NO DEHYDRATION** | ■ Give fluids to treat diarrhoea at home and continue breastfeeding (Plan A)<br>■ Advise mother when to return immediately<br>■ Follow-up on day 3 if not improving |

*** What is diarrhoea in a young infant?**

A young infant has diarrhoea if the stools have changed from usual pattern and are many and watery (more water than fecal matter).

The normally frequent or semi-solid stools of a breastfed baby are not diarrhoea.

## THEN CHECK FOR HIV INFECTION

***ASK:***

- Has the mother had an HIV test?

  **If yes:**
  - When?
  - Rapid Antibody test POSITIVE or NEGATIVE?
- Has the infant had an HIV test?

  **If yes:**
  - DNA-PCR test POSITIVE or NEGATIVE?
  - Rapid Antibody test POSITIVE or NEGATIVE?

**If mother's is HIV positive and there is no positive DNA-PCR test in infant**

**ASK:**

- Is the mother on ART and young infant on Nevirapine prophylaxix?

**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.

***Classify HIV status***

| | | |
|---|---|---|
| • Positive DNA-PCR test in young infant | ***Yellow:*** **HIV INFECTED** | ■ Give Cotrimoxazole prohylaxis from age 6 weeks<br>■ Refer or give HIV care/ ART<br>■ Assess the infant's feeding and counsel as necessary<br>■ Advise the mother on home care.<br>■ Folllow-up monthly |
| • Mother HIV positive AND negative DNA-PCR test in young infant.<br>OR<br>• Mother HIV positive, young infant not yet tested<br>OR<br>• Positive rapid antibody test (HIV test) in young infant | ***Yellow:*** **HIV EXPOSED** | ■ Give Cotrimoxazole prophylaxis from age 6 weeks<br>■ Start or continue ARV prophylaxis***<br>■ Assess the infant's feeding and give appropriate feeding advice<br>■ If DNA-PCR test is unknown, test as soon as possible starting from 6 weeks of age<br>■ Advise the mother on home care<br>■ Follow-up regularly |
| • HIV test not done for mother or infant | ***Green:*** **HIV INFECTION STATUS UNKNOWN** | ■ Encourage HIV testing where it is available |
| • Negative HIV test in mother or young infant | ***Green:*** **NOT HIV INFECTED** | ■ Treat, counsel and follow-up existing infections<br>■ Advise the mother about feeding and her own health |

* Prevention of Mother-To-Child-Transmission (PMTCT) ART prophylaxis.

*** INH preventive therapy should be started if young infant lives with a patient with **pulomonary TB** who has not yet completed 2 months of TB treatment

***Initiate ART for all pregnant and lactating women with HIV infection, and put their infants on ART prophylaxis:**
OPTION B+: Mother on lifelong triple ART regimen, young infant on NVP prophylaxis from birth for 6 weeks if breastfeeding.

## THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE IN BREASTFED INFANTS

**If an infant has no indications to refer urgently to hospital:**

***Ask:***

- Does the infant breastfeed? If yes,
  - How many times in 24 hours?
- Does the infant usually receive any other foods or drinks?

If yes:

- how often?
- What do you use to feed the infant

***LOOK, FEEL:***

- Determine the weight for age.
  - Weight less than 1.5 kg?
  - Weight for age less than -3 Z-score?
- Look for ulcers or white patches in the mouth (thrush)

***ASSESS BREASTFEEDING:***

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

*Not well attached* *Good attachment*

TO CHECK ATTACHMENT, LOOK FOR:

- Chin touching breast
- Mouth wide open
- Lower lip turned outwards
- More areola visible above than below the mouth

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

- 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 breastfeeding

***Classify FEEDING***

| | | |
|---|---|---|
| • Weight < 1.5 kg or<br>• Weight < -3 Z Score | ***Pink:***<br>**VERY LOW WEIGHT** | ■ **Treat to prevent low blood sugar**<br>■ **Refer URGENTLY to hospital**<br>■ **Teach the mother to keep the young infant warm on the way to hospital** |
| • Not well attached to breast or<br>• Not suckling effectively or<br>• Less than 8 breastfeeds in 24 hours or<br>• Receives other foods or drinks or<br>• Low weight for age or<br>• Thrush (ulcers or white patches in mouth). | ***Yellow:***<br>**FEEDING PROBLEM OR LOW WEIGHT** | ■ If not well attached or not suckling effectively, teach correct positioning and attachment<br>  ○ If not able to attach well immediately, teach the mother to express breast milk and feed by a cup<br>■ If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding. Advise the mother to breastfeed as often and as long as the infant wants, day and night<br>■ If receiving other foods or drinks, counsel the mother about breastfeeding more, reducing other foods or drinks, and using a cup<br>■ If not breastfeeding at all:<br>  ○ Refer for breastfeeding counselling and possible relactation<br>  ○ Advise about correctly preparing breast-milk substitutes and using a cup<br>■ Advise the mother how to feed and keep the low weight infant warm at home<br>■ If thrush, teach the mother to treat thrush at home<br>■ Advise mother to give home care for the young infant<br>■ Follow-up any feeding problem or thrush on day 3<br>■ Follow-up low weight for age on day 14 |
| • Not low weight for age and no other signs of inadequate feeding. | ***Green:***<br>**NO FEEDING PROBLEM** | ■ Advise mother to give home care for the young infant<br>■ Praise the mother for feeding the infant well |

## THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE INFANTS NOT BREASTFEEDING

**Use this chart when an infant is not breastfed for other reasons:**

***Ask:***

- What milk are you giving?
- How many times during the day and night?
- How much is given at each feed?
- How are you prepairing the milk?
  - Let mother explain how a feed is prepared, and how it is given to the infant
- How is the milk being given?
  - Cup or bottle?
- How are you cleaning the feeding utensils?
- Are you giving any breast milk at all?
- What foods and fluids in addition to replacement feeds are given?

***LOOK AND FEEL:***

- Determine the weight for age.
  - Weight less than 1.5 kg?
  - Weight for age less than -3 Z-score?
- Look for ulcers or white patches in the mouth (thrush)

***Classify FEEDING***

| | | |
|---|---|---|
| • Weight < 1.5 kg or<br>• Weight < -3 Z Score | ***Pink:***<br>**VERY LOW WEIGHT** | ■ **Treat to prevent low blood sugar**<br>■ **Refer URGENTLY to hospital**<br>■ **Teach the mother to keep the young infant warm on the way to hospital** |
| • Giving inappropriate replacement feeds or<br>• Giving insufficient replacement feeds or<br>• Milk incorrectly and unhygienically prepared or<br>• Using a feeding bottle or<br>• Low weight for age or<br>• Thrush | ***Yellow:***<br>**FEEDING PROBLEM OR LOW WEIGHT** | ■ Counsel about feeding<br>■ Explain the guidelines for safe replacement feeding<br>■ Identify concerns of mother and family about feeding<br>■ If mother is using a bottle,teach cup feeding<br>■ If thrush, teach the mother to treat thrush at home<br>■ Advise mother to give home care for the young infant<br>■ Follow-up any feeding problem or thrush on day 3<br>■ Follow-up low weight for age on day 7 |
| • Not low weight for age and no other signs of inadequate feeding. | ***Green:***<br>**NO FEEDING PROBLEM** | ■ Advise mother to give home care for the young infant<br>■ Praise the mother for feeding the infant well |

# CHECK THE NEW BORN /YOUNG INFANT'S IMMUNIZATION STATUS:

| IMMUNIZATION SCHEDULE: | AGE | VACCINE | | | |
|---|---|---|---|---|---|
| | **Birth** | BCG | OPV-0* | | |
| | **6 weeks** | DPT-HepB-Hib-1 | OPV-1 | ROTAVIRUS-1 | PCV-1 |

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

- Immunise all sick infants unless being referred
- Advise the caretaker when to return for the next dose

## *ASSESS OTHER PROBLEMS AND COUNSEL MOTHER ABOUT HER OWN HEALTH*

- Check the mother if she had Vitamin A Postnatally
- Check if her TTV Schedule is up to date
- Check her Nutritional status, anaemia and contraception.
- Check hygienic practices.

# TREAT THE YOUNG INFANT

## IF THE YOUNG INFANT IS CLASSIFIED AS POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE, GIVE PRE-REFERRAL TREATMENTS AND REFER URGENTLY

### *Give first doses of intramuscular gentamicin and ampicillin.*

**For possible serious bacterial infection or very severe disease***

- **Give intramuscular gentamicin:** 5 - 7.5 mg/kg body weight per day.
- **Give intramuscular ampicillin:** 50mg/kg body weight

| WEIGHT | **Benzyl Penicillin** 5 MU | **Gentamicin** Strength of 20 mg/ml |
|---|---|---|
| | 50,000 Units/kg | 7.5 mg/kg if >7 days of age or 5mg/kg if <7 days of age |
| 1kg - <1.5kg | 60,000 iu | 0.3 ml |
| 1.5kg - <2.5kg | 100,000 iu | 0.4 ml |
| 2.5kg - <4kg | 160,000 iu | 0.8 ml |
| 4kg - <6kg | 250,000 iu | 1.2 ml |

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

- Referral is the best option for a young infant classified with POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE. If referral is not possible, continue to give gentamicin for 2 days and amoxicillin for 7 days.

### *Treat the young infant to prevent low blood sugar*

- ***If the young infant is able to breastfeed:***
  Ask the mother to breastfeed the young infant.
- ***If the young infant is not able to breastfeed but is able to swallow:***
  Give 20-50 ml (10 ml/kg) expressed breast milk before departure.

***If the young infant is not able to swallow:***

- Give 20-50 ml (10 ml/kg) of expressed breast milk or sugar water by nasogastric tube.

# TREAT THE YOUNG INFANT

### *Teach the mother how to keep the infant warm*

To keep the young infant warm on the way to hospital, the mother should:

- Provide skin to skin contact (Kangaroo mother care)
  OR
- Keep the young infant clothed or covered as much as possible all the time. Dress the young infant with extra clothing including hat, gloves, socks and wrap the infant in a soft dry cloth and cover with a blanket.

### *Refer urgently*

- **Write a referral note for the mother to take to the hospital.**
- ***If the infant also has SOME DEHYDRATION OR SEVERE DEHYDRATION and is able to drink:***
  - Give the mother some prepared ORS and ask her to give frequent sips of ORS on the way.
  - Advise mother to continue breastfeeding.

# TREAT THE YOUNG INFANT

## *Treat the young infant with severe dehydration quickly with PLAN C*

**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 young infant can drink, give ORS by mouth while the drip is set up.
- ·Give 100 ml/kg Ringer's Lactate Solution (or, if not available, normal saline), divided as follows:

| AGE | First give 30 ml/kg in: | Then give 70 ml/kg in: |
|---|---|---|
| Infants (under 12 months) | 1 hour* | 5 hours |

- Reassess the young infant 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 young infant can drink: usually after 3–4 hours.
- Reassess a young infant after 6 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→

- **Refer URGENTLY to hospital for IV treatment.**
- If the infant can drink, provide the mother with ORS solution and show her how to give frequent sips during the trip or give ORS by naso-gastric tube.

NO ↓

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

YES→

- **Start rehydratin by tube (or mouth) with ORS solution:** give 20 ml/kg/hour for 6 hours (total of 120 ml/kg).
- **Reassess the young infant every 1-2 hours while waiting for transfer:**
  - 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 ↓

Can the young infant drink?

YES→

NO ↓

Refer URGENTLY to hospital for IV or NG treatment

**NOTE:**

- If the young infant is not referred to hospital, observe the child at least 6 hours after rehydration to be sure the mother can maintain hydration giving the child ORS solution by mouth.

# TREAT THE YOUNG INFANT

## *Give intramuscular gentamicin to infants with clinical severe infection where referral is refused or not possible*

**Gentamicin:** Desired range is 5 - 7.5 mg/kg per day once daily. In low birth weight infants, give 3 - 4 mg per kg per day once daily for 2 days. To prepare the injection: From a 2 ml ampoule containing 40 mg/ml, remove 1 ml gentamicin from the ampoule and add 1 ml water for injection to make the required 20 mg/ml.

| **WEIGHT (Kg)** | **Gentamicin**<br>(Strength of 20 mg/ml) once daily for 2 days |
|---|---|
| 1.0 - <1.5 | 0.3 ml |
| 1.5 - <2.5 | 0.4 ml |
| 2.5 - <4.0 | 0.8 ml |
| 4.0 - <6.0 | 1.2 ml |

## *Give oral Amoxicillin to young infants with CLINICAL SEVERE INFECTION or PNEUMONIA* where referral is refused or not possible*

Teach the mother how to give oral medicines at home

| **WEIGHT (kg)** | **AMOXICILLIN**<br>75 - 100 mg/kg twice daily for 7 days | | |
|---|---|---|---|
| | Dispersible tablet (250 mg) | Dispersible tablet (125 mg) | Syrup (125 mg/5ml) |
| 1.5 - <2.5 | 1/2 | 1 | 5 ml |
| 2.5 - <4.0 | 1/2 | 1 | 5 ml |
| 4.0 - <6.0 | 1 | 2 | 10 ml |

* Give amoxicillin to young infants less than 7 days old if presenting with fast breathing alone

# TREAT THE YOUNG INFANT

## *Give pre-referral treatment for CRITICAL ILLNESS*

Give first dose of IM gentamicin and benzyl penicillin to young infants with CRITICAL ILLNESS and REFER URGENTLY* to hospital

Gentamicin

**Gentamicin**: Desired range is 5 - 7.5 mg/kg per day once daily. In low birth weight infants, give 3 - 4 mg per kg per day once daily for 2 days. To prepare the injection: From a 2 ml ampoule containing 40 mg/ml, remove 1 ml gentamicin from the ampoulel and add 1 ml water for injectionn to make the required 20 mg/ml.

**Benzyl penicillin**: Desired dose is 50,000 IU/kg twice daily. To prepare the injection: Dilute a 5 MU vial with 10ml of sterile water

| **WEIGHT (Kg)** | Benzyl penicillin<br>5 MU | **Gentamicin**<br>Strength of 20 mg/ml |
|---|---|---|
| | 50,000 units/kg | 7.5 mg/kg if > 7 days of age or 5 mg/kg if < 7 days of age |
| 1.0 - <1.5 | 60,000 iu | 0.3 ml |
| 1.5 - <2.5 | 100,000 iu | 0.4 ml |
| 2.5 - <4.0 | 160,000 iu | 0.8 ml |
| 4.0 - <6.0 | 250,000 iu | 1.2 ml |

* If after additionaL counselling and problem solving, referral is still not possible, administer IM gentamicin once daily and IM benzyl penicillin twice daily until referral becomes possible

## *Give oral Amoxicillin for pneumonia and local infection*

Pneumonia: Give twice daily for 7 days in infants 7 - 59 days of age

Local infection: Give twice daily for 5 days

| **WEIGHT (Kg)** | **AMOXICILLIN**<br>75 - 100 mg/kg/day twice daily | | |
|---|---|---|---|
| | Dispersible tablet (250 mg) | Dispersible tablet (125 mg) | Syrup (125 mg/5ml) |
| 1.5 - <2.5 | 1/2 | 1 | 5 ml |
| 2.5 - <4.0 | 1/2 | 1 | 5 ml |
| 4.0 - <6.0 | 1 | 2 | 10 ml |

## *Give Nevirapine for HIV prophylaxis*

| **WEIGHT** | **Nevirapine**<br>Syrup |
|---|---|
| | once daily for 6 weeks |
| < 2500g | 1.0ml |
| > 2500g | 1.5ml |

# TREAT THE YOUNG INFANT

## *Teach the mother to give oral medicines at home*

**Follow the instructions below to teach the mother about each oral medicine to be given at home. Also follow the instructions listed with each medicine's dosage table.**

- Determine the appropriate medicines and dosage for the infant's age or weight.
- Tell the mother the reason for giving the medicine to the infant.
- Demonstrate how to measure a dose.
- Watch the mother practise measuring a dose by herself.
- Ask the mother to give the first dose to her infant.
- Explain carefully how to give the medicine, then label and package the medicine.
- If more than one medicine will be given, collect, count and package each medicine separately.
- Explain that all the tablets or syrups must be used to finish the course of treatment,even if the infant gets better.
- Check the mother's understanding before she leaves the clinic.

## *Teach the mother how to treat Local Infections at home*

- Explain how the treatment is given.
- Watch her as she does the first treatment in the clinic.
- Tell her to return to the clinic if the infection worsens.

| **To Treat Skin Pustules or Umbilical Infection** | **To Treat Thrush (ulcers or white patches in mouth)** |
|---|---|
| The mother should provide the treatment twice daily for 5 days:<br>■ Wash hands<br>■ Gently wash off pus and crusts with soap and water<br>■ Dry the area<br>■ Paint the skin or umbilicus/cord with full strength gentian violet (0.5%)<br>■ Wash hands | The mother should provide the treatment four times daily for 7 days:<br>■ Wash hands<br>■ Paint the mouth with half-strength gentian violet (0.25%) using a soft cloth wrapped around the finger<br>■ Apply oral Nystatin 2 drops four times daily for 7 days<br>■ Wash hands again |

## GIVE EXTRA FLUIDS AND CONTINUE FEEDING TO TREAT DIARRHOEA

### *Plan A: Treat diarrhoea at home*

**Counsel the mother on the 4 Rules of Home Treatment:**

1. **Give Extra Fluid**
2. **Continue Feeding**
3. **When to Return.**

1. ***GIVE EXTRA FLUID* (as much as the young infant will take)**

   **TELL THE MOTHER:**

   - Breastfeed frequently and for longer at each feed.
   - Also give ORS or clean water in addition to breastmilk

   **It is especially important to give ORS at home when:**

   - the young infant has been treated with Plan B or Plan C during this visit.
   - the young infant cannot return to a clinic if the diarrhoea gets worse.

   **TEACH THE MOTHER HOW TO MIX AND GIVE ORS.**

   **GIVE THE MOTHER 2 PACKETS OF ORS TO USE AT HOME.**

   **SHOW THE MOTHER HOW MUCH FLUID TO GIVE IN ADDITION TO THE USUAL FLUID INTAKE:**

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

   **Tell the mother to:**

   - Give frequent small sips from a cup.
   - If the young infant vomits, wait 10 minutes. Then continue, but more slowly.
   - Continue giving extra fluid until the diarrhoea stops

2. **CONTINUE FEEDING (exclusive breastfeeding)**
3. **WHEN TO RETURN**

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

- **In the clinic, give recommended amount of ORS over 4-hour period**
- **Determine amount of ORS to give during first 4 hours**

| | |
|---|---|
| **WEIGHT** | **< 6 kg** |
| **AGE*** | **Up to 4 months** |
| **In ml** | 200 - 450 |

** Use the age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the child's weight (in kg) times 75.*

If the infant wants more ORS than shown, give more.

**SHOW THE MOTHER HOW TO GIVE ORS SOLUTION.**

- Give frequent small sips from a cup.
- If the young infant vomits, wait 10 minutes. Then continue, but more slowly.
- Continue breastfeeding whenever the young infant wants.

**AFTER 4 HOURS:**

- Reassess the young infant and classify the child for dehydration.
- Select the appropriate plan to continue treatment.
- Begin feeding the young infant in clinic.

**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 packets to complete rehydration. Also give her 2 packets as recommended in **Plan A**.

**Explain the Rules of Home Treatment for Young Infant:**

1. **GIVE EXTRA FLUID**
2. **BREASTFEED FREQUENTLY AND FOR LONGER AT EACH FEED**
3. **WHEN TO RETURN**

## COUNSEL THE MOTHER

### *Teach correct positioning and attachment for breastfeeding*

- Show the mother how to hold her infant.
  - with the infant's head and body straight
  - newborn facing to the breast.
  - infant's abdomen close to the mother's abdomen
  - 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.

### *Teach the mother how to express breast milk*

Ask the mother to:

- Wash her hands thoroughly.
- Make herself comfortable.
- Hold a wide necked container under her nipple and areola.
- Place her thumb on top of the breast and the first finger on the under side of the breast so they are opposite each other (at least 4 cm from the tip of the nipple).
- Compress and release the breast tissue between her finger and thumb a few times.
- If the milk does not appear she should re-position her thumb and finger closer to the nipple and compress and release the breast as before.
- Compress and release all the way around the breast, keeping her fingers the same distance from the nipple. Be careful not to squeeze the nipple or to rub the skin or move her thumb or finger on the skin.
- Express one breast until the milk just drips, then express the other breast until the milk just drips.
- Alternate between breasts 5 or 6 times, for at least 20 to 30 minutes.
- Stop expressing when the milk no longer flows but drips from the start.

### *Counsel the mother or caregiver is not breast feeding*

- The mother or caretaker should have received full counselling before making this decision
- Ensure that the mother or caretaker has an adequate supply of appropriate breastmilk substitute replacement feed.
- Ensure that the mother or caretaker knows how to prepare milk correctly and hygienically and has the facilities and resources to do so.
- Demonstrate how to feed with a cup and spoon rather than a bottle.
- Make sure that the mother or caretaker understands that prepared feed must be finished within an hour after preparation.
- Make sure that the mother or caretaker understands that mixing breastfeeding with replacement feeding may increase the risk of HIV infection and should not be done.

### *Teach the mother how to feed by a cup*

- Put a cloth on the infant's front to protect his clothes as some milk can spill.
- Hold the infant semi-upright on the lap.
- Put a measured amount of milk in the cup.
- Hold the cup so that it rests lightly on the infant's lower lip.
- Tip the cup so that the milk just reaches the infant's lips.
- Allow the infant to take the milk himself. DO NOT pour the milk into the infant's mouth.

### *Teach the mother how to keep the low weight infant warm at home*

- Keep the young infant in the same bed with the mother.
- Keep the room warm (at least 25°C) with home heating device and make sure that there is no draught of cold air.
- Avoid bathing the low weight infant. When washing or bathing, do it in a very warm room with warm water, dry immediately and thoroughly after bathing and clothe the young infant immediately.
- Change clothes (e.g. nappies) whenever they are wet.
- Provide skin to skin contact as much as possible, day and night (Kangaroo Mother Care). For skin to skin contact:
  - Dress the infant in a warm shirt open at the front, a nappy, hat and socks.
  - Place the infant in skin to skin contact on the mother's chest between her breasts. Keep the infat's head turned to one side.
  - Cover the infant with mother's clothes (and an additional warm blanket in cold weather).
- When not in skin to skin contact, keep the young infant clothed or covered as much as possible at all times. Dress the young infant with extra clothing including hat and socks, loosely wrap the young infant in a soft dry cloth and cover with a blanket.
- Check frequently if the hands and feet are warm. If cold, re-warm the baby using skin to skin contact.
- Breastfeed the infant frequently (or give expressed breast milk by cup).

## COUNSEL THE MOTHER

### *Advise the mother to give home care for the young infant*

1. **EXCLUSIVELY BREASTFEED THE YOUNG INFANT**
   - Give only breastfeeds to the young infant.
   - Breastfeed frequently, as often and for as long as the infant wants, day and night, during sickness and health**.**
2. **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.
3. **WHEN TO RETURN:**

| **Follow up visit** | |
|---|---|
| **If the infant has:** | **Return for first follow-up in:** |
| ▪ JAUNDICE | 2 day |
| ▪ LOCAL BACTERIAL INFECTION<br>▪ FEEDING PROBLEM<br>▪ THRUSH<br>▪ DIARRHOEA | 3 days |
| ▪ PNEUMONIA<br>▪ PNEUMONIA where referral is refused or not possible | 4 days |
| ▪ LOW WEIGHT FOR AGE in breastfed infant | 14 days |
| ▪ LOW WEIGHT FOR AGE in infant receiving no breast milk | 7 days |
| ▪ HIV INFECTED OR HIV EXPOSED | 6 weeks and monthly |

**WHEN TO RETURN IMMEDIATELY:**

| **Advise the mother to return immediately if the young infant has any of these signs:** |
|---|
| ▪ Breastfeeding poorly<br>▪ Reduced activity<br>▪ Becomes sicker<br>▪ Develops a fever<br>▪ Feels unusually cold<br>▪ Develops fast breathing<br>▪ Develops difficult breathing<br>▪ Palms and soles appear yellow |

# FOLLOW-UP

## GIVE FOLLOW-UP CARE FOR THE YOUNG INFANT

### *CLINICAL SEVERE INFECTION where referral is not possible*

- Follow up at the next contact for injection (day 2) and on day 4 of treatment.
- At each contact, reassess the young infant as indicated in annex 3.
- Refer ***young infant if:***
  - Infant develops critical illness signs after treatment is started or
  - Any new sign of CLINICAL SEVERE INFECTION appears while on treatment or
  - If no improvement on day 4 after 3 full days of treatment.
- 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.

### *PNEUMONIA*

- **Follow up** on day 4 of treatment.
- Reassess the young infant for POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE, PNEUMONIA AND LOCAL INFECTION as on page 30.
- **Refer *young infant if:***
  - Infant develops critical illness signs after treatment is started or
  - Any new sign of VERY SEVERE DISEASE appears while on treatment
- If the young infant is improving, ask the mother to continue giving the oral amoxicillin twice daily until all the tablets are finished.
- Young infants with fast breathing alone should be checked as often as possible but it is mandatory to do so on day 4 of treatment.

### *LOCAL INFECTION*

**On day 3 of treatment:**

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

**Treatment:**

- If umbilical ***pus or redness remains same 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 skin pustules are ***same or worse***, refer to hospital. If ***improved***, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.

# GIVE FOLLOW-UP CARE FOR THE YOUNG INFANT

## *JAUNDICE*

**On day 2 of treatment:**

- Look for jaundice. Are palms and soles yellow?

**Treatment:**

- If palms and soles are yellow, refer to hospital.
- If palms and soles are not yellow, but jaundice has not decreased, advise the mother home care and ask her to return for follow up in the next day.
- If jaundice has started decreasing, reassure the mother and ask her to continue home care. Ask her to return for follow up at 3 weeks of age.
- If jaundice continues beyond 3 weeks of age, refer the young infant to a hospital for further assessment.

## *DIARRHOEA*

**On day 3:**

Ask: Has the diarrhoea stopped?

**Treatment**

- If the diarrhoea has not stopeed, assess and treat the young infant for diarrhoea. >SEE "Does the Young Infant Have Diarrhoea?"
- If the diarrhoea has stopeed, tell the mother to continue exclusive breastfeeding.

## *FEEDING PROBLEM*

**On day 3:**

Reassess feeding. > See "Then Check for Feeding Problem or Low Weight".

Ask about any feeding problems found on the initial visit.

- Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the young infant back again.
- If the young infant is low weight for age, ask the mother to return 14 days of this follow up visit. Continue follow-up until the infant is gaining weight well.

***Exception:***

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

# GIVE FOLLOW-UP CARE FOR THE YOUNG INFANT

## *LOW WEIGHT FOR AGE*

**On day 14:**

Weigh the young infant and determine if the infant is still low weight for age.

Reassess feeding. > See "Then Check for Feeding Problem or Low Weight".

- If the infant is ***no longer low weight for age***, praise the mother and encourage her to continue.
- If the infant is ***still low weight for age, but is feeding well***, praise the mother. Ask her to have her infant weighed again within 14 days or when she returns for immunization, whichever icomes first.
- 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 14 days). Continue to see the young infant every few weeks until the infant is feeding well and gaining weight regularly and 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*

**On day 3:**

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

Reassess feeding. > See "Then Check for Feeding Problem or Low Weight".

- If ***thrush is worse*** check that treatment is being given correctly.
- If ***thrush is the same or better***, and if the infant is ***feeding well***, continue nystatin for a total of 5 days.

## *HIV INFECTED or HIV EXPOSED:*

- Should return for follow-up regularly
- Follow the instructions for follow-up care for child aged 2 months up to 5 years

# Annex

## Annex 1: Skin and Mouth Conditions

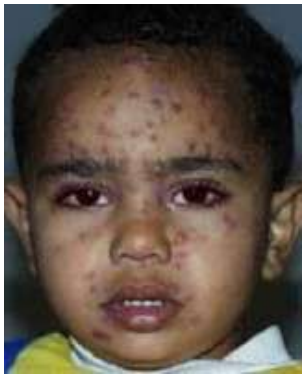
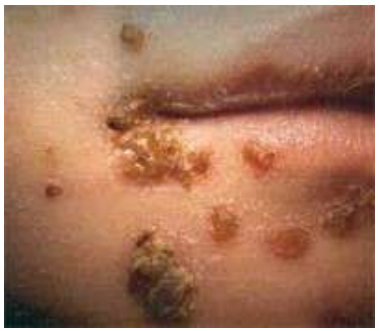
## Identify Skin Problem

If skin is itching

| | SIGNS | CLASSIFY AS: | TREATMENT | UNIQUE FEATURES IN HIV |
|---|---|---|---|---|
|  | Rash with small papules, scratch marks and dark spots with pale centres | **PAPULAR ITCHING RASH (PRURIGO)** | ■ Treat itching with Calamine lotion or oral Antihistamine<br>■ If no improvement, 1% hydrcortisone | Can be early sign of HIV and needs assessment for HIV<br>**Is a clinical stage 2 defining case** |
|  | An itchy circular lesion with a raised edge and fine scaly area in the centre of body, web of feet and scalp with loss of hair. | **RING WORM (TINEA)** | Whitfield ointment or other antifungal cream if few patches<br>If extensive refer, if not give: Ketokonazole 6-10mg/kg/day.<br>Alternatively, give Griseofulvin 10mg/kg/day. | Extensive: There is a high incidence of co existing nail infection which has to be treated adequately to prevent reccurencies of tinea infections of skin.<br>**Fungal nail infection is a clinical stage 2 defining disease** |
|  | Rash and excoriations on torso; burrows in web space and wrists. face spared | **SCABIES** | Treat itching and manage with 25% topical Benzyl Benzoate at night, repeat for 3 days after washing. Wash off after 12 hours | In HIV positive individuals scabies may manaifest as crust scabies. |

# Identify Skin Problem

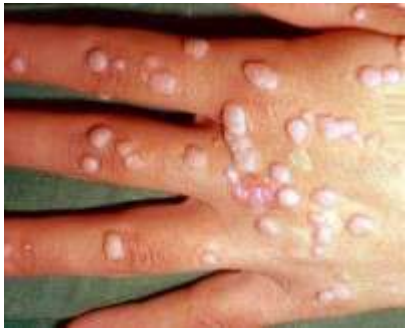
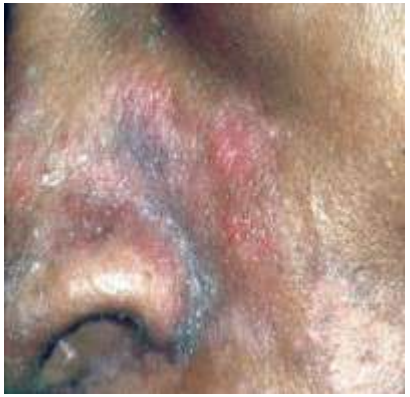
If skin has blisters/sores/pustules

| | SIGNS | CLASSIFY AS: | TREATMENT | UNIQUE FEATURES IN HIV |
|---|---|---|---|---|
|  | Vesicles over body.<br>Vesickles appear progressively over days and<br>formscabs after they rupture | **CHIKEN POX** | Treat itching as above<br>Refer URGENTLY if pneumonia or jaundice appear | Presentation atypical only if child is immunocompromised<br>Duration of disease longer<br>Complications more frequent<br>Chronic infection with continued appearance of new lesions for >1 month; typical vesicles evolve into nonhealing ulcers that become necrotic, crusted, and hyperkeratotic. |
|  | Vesicles in one area on one side of<br>body with intense pain or scars<br>plus shooting pain.<br>Herpes zoster is uncommon in children except where they are immuno-compromised, for example<br>if infected with HIV | **HERPES ZOSTER** | ▪ Keep lesions clean and dry. Use local antiseptic<br>▪ If eye involved give acyclovir 20 mg /kg 4 times daily for 5 days<br>▪ Give pain relief<br>▪ Follow-up in 7 days | Duration of disease longer<br>Hemorrhagic vesicles, necrotic ulceration<br>Rarely recurrent, disseminated or mult idermatomal<br><br>**Is a Clinical stage 2 defining disease** |
|  | Red, tender, warm crusts or small lesions | **IMPETIGO OR FOLLICULITIS** | Clean sores with antiseptic<br>Drain pus if fluctuant<br>Start cloxacillin if size >4cm or red streaks or tender nodes or multiple abscesses for 5 days ( 25-50 mg/kg every 6 hours)<br>Refer URGENTLY if child has fever and /<br>or if infection extends to the muscle. | |

**SEE BELOW FOR MORE INFORMATION ABOUT THE DRUG REACTION**

# Identify Papular Lesions

Non-itchy

| | SIGNS | CLASSIFY AS: | TREATMENT | UNIQUE FEATURES IN HIV |
|---|---|---|---|---|
|  | Skin colored pearly white papules with a central umblication. It is most commonly seen on the face and trunk in children. | **MOLLUSCUM CONTAGIOSUM** | Can be treated by various modalities:<br>Leave them alone unless superinfected<br>Use of phenol: Pricking each lesion with a needle or sharpened orange stick and dabbing the lesion with phenol<br>Electrodesiccaton<br>Liquid nitrogen application (using orange stick)<br>Curettage | Incidence is higher<br>Giant molluscum (>1cm in size), or coalescent Pouble or triple lesions may be seen<br>More than 100 lesions may be seen.<br>Lesions often chronic and difficult to eradicate<br>Extensive molluscum contagiosum is a Clinical stage 2 defining disease |
|  | The common wart appears as papules or nodules with a rough (verrucous) surface | **WARTS** | Treatment:<br>Topical salicylic acid preparations ( eg. Duofilm)<br>Liquid nitrogen cryotherapy.<br>Electrocautery | Lesions more numerous and recalcitrant to therapy<br>Extensive viral warts is a Clinical stage 2 defining disease |
|  | Greasy scales and redness on central face, body folds | **SEBBHORREA** | Ketoconazole shampoo<br>If severe, refer or provide tropical steroids<br>For seborrheic dermatitis: 1% hyrdocortisone cream X 2 daily<br>If severe, refer | Seborrheic dermatitis may be severe in HIV infection.<br>Secondary infection may be common |

# Mouth Problems

**Thrush**

| Presenting signs | CLASSIFY AS: | TREATMENT |
|---|---|---|
| Not able to swallow | SEVERE OESOPHAGEAL THRUSH | ■ Refer URGENTLY to hospital. If not able to refer, give fluconazole.<br>■ If mother is breasfeeding, check and treat the mother for breast thrush.<br>(Stage 4 disease) |
| Pain or difficulty swallowing | OESOPHAGEAL THRUSH | ■ Give fluconazole<br>■ Give oral care to young infant or child.<br>■ If mother is breasfeeding, check and treat the mother for breast thrush.<br>■ Tell the mother when to come back immediately.<br>■ Once stabilized, refer for ART initiation<br>(Stage 4 disease) |
| White patches in mouth which can be scraped off  | ORAL THRUSH | ■ Teach the mother to treat oral thrush at home. The mother should:<br>● Wash hands<br>● Wash the young infant/child's mouth with a soft clean cloth wrapped around her finger and wet with salt water<br>● Instill 1 ml of nystatin four times per day or paint with 1/2 strength gentian violet for 7 days<br>● Wash her hands after providing treatment for the young infant or child<br>● Avoid feeding for 20 minutes after medication<br>■ If breastfed, check mother's breast for thrush. If present (dry, shiny scales on nipple and areola) treat with nystatin or GV<br>■ Advise the mother to wash hands breasts after feeds. If bottle fed, advise to change to cup and spoon<br>■ If severe, recurrent or pharyngeal thrush, consider symptomatic HIV<br>■ Give paracetamol if needed for pain<br>(Stage 3 disease) |
| White patches in mouth most frequently seen on the sides of the tongue, a white plaquewith a a corrugated appearance.  | ORAL HAIRY LEUCOPLAKIA | Does not independently require treatment, but resolves with ART and Acyclovir<br>(Stage 2 disease) |

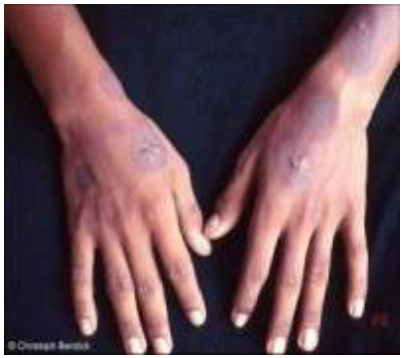
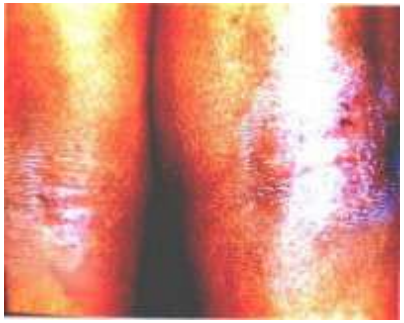
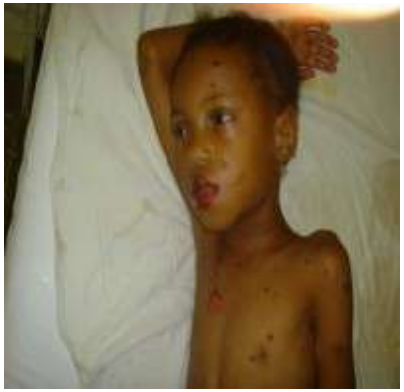
# Mouth Problems

Herpes simplex

| | SIGNS | CLASSIFY AS: | TREATMENT | UNIQUE FEATURES IN HIV |
|---|---|---|---|---|
| | Vesicular lesion or sores, also involving lips, mouth and or gums. The lesions can be deep and extensive | HERPES SIMPLEX | ■ If child is unable to feed, and classified as SEVERE MOUTH/GUM INFECTION, give first dose of acyclovir then refer<br>■ If referal is not possible give oral Metronidazole 7.5 mg/kg 8 hourly for 7 days<br>■ If it is a first episode and lesions are not severe give acyclovir 20 mg/kg 4 times daily for 5 days | Extensive area of involvement<br>Large ulcers<br>Delayed healing (often greater than a month)<br>Resistance to Acyclovir common. Therefore continue treatment till complete healing of ulcer<br>Chronic HSV infection (>1 month) is a Clinical stage 4 defining disease |

# Clinical reaction

## *Drug and Allergic Reactions*

| | SIGNS | CLASSIFY AS: | TREATMENT | UNIQUE FEATURES IN HIV |
|---|---|---|---|---|
|  | Generalized red, wide spread with small bumps or blisters; or<br>one or more dark skin areas (fixed drug reactions) | **FIXED DRUG REACTIONS** | Stop medications give oral antihistamines, if pealing rash refer | Could be a sign of reactions to ARVs |
|  | Wet, oozing sores or escoriated, thick patches | **ECZEMA** | Soak sores with clean water to remove crusts(no soap)<br>Dry skin gently<br>Short time use of topical steriod cream not on face.<br>Treat itching | |
|  | Severe reaction due to cotrimoxazole or NVP involving the skin as well as the eyes and the mouth. Might cause difficulty in breathing | **STEVEN JOHNSON SYNDROME** | Stop medication refer urgently | **The most lethal reaction to NVP, Cotrimoxazolen or even Efavirens** |

# Annex 2: WHO Paediatric Staging For HIV

**WHO PAEDIATRIC STAGING FOR HIV INFECTION**

This is used for monitoring children during follow up to determine clinical response to ARV treatment. Determine the clinical stage by assessing the child's signs and symptoms. Look at the classification for each stage. Decide what is the highest stage applicable to the child where one or more of the child's symptoms are represented.

| | **Stage 1**<br>**Asymptomatic** | **Stage 2**<br>**Mild Disease** | **Stage 3**<br>**Moderate Disease** | **Stage 4**<br>**Severe Disease (AIDS)** |
|---|---|---|---|---|
| | | | Unexplained acute malnutrition not responding to standard therapy | Severe unexplained wasting/stunting/severe acute malnutrition not responding to standard therapy |
| Symptoms/Signs | No symptoms, or only: Persistent generalized lymphadenopathy (PGL) | • Enlarged liver and/or spleen<br>• Enlarged parotid<br>• Skin conditions (prurigo, seborraic dermatitis, extensive molluscum contagiosum or warts, fungal nail infection herpes zoster)<br>• Mouth conditions recurrent mouth ulcerations, linea gingival Erythema)<br>• Recurrent or chronic upper respiratory tract infections (sinusitis, ear infection, tonsilitis, ortorrhea) | • Oral thrush (outside neonatal period).<br>• Oral hairy leukoplakia.<br>• Unexplained and unresponsive to standard therapy:<br>  ○ Diarhoea for over 14 days<br>  ○ Fever for over 1 month<br>  ○ Thrombocytopenia*(under 50,000/mm3 for 1month<br>  ○ Neutropenia* (under 500/mm3 for 1 month)<br>  ○ Anaemia for over 1 month (haemoglobin under 8 gm)*<br>• Recurrent severe bacterial pneumonia<br>• Pulmonary TB<br>• Lymp node TB<br>• Symptomatic lymphoid interstitial pneumonitis (LIP)*<br>• Acute necrotising ulcerative gingivitis/periodontitis<br>• Chronic HIV associated lung diseses including bronchiectasis* | • Oesophageal thrush<br>• More than one month of herpes simplex ulcerations.<br>• Severe multiple or recurrent bacteria infections > 2 episodes in a year (not including pneumonia) pneumocystis pneumonia (PCP)*<br>• Kaposi's sarcoma.<br>• Extrapulmonary tuberculosis.<br>• Toxoplasma brain abscess*<br>• Cryptococcal meningitis*<br>• Acquired HIVassociated rectal fistula<br>• HIV encephalopathy* |

*Conditions requiring diagnosis by a doctor or medical officer - should be referred for appropriate diagnosis and treatment.

# Annex 3: Where referral is not possible

**Possible Serious Bacterial Infection when referral is not possible**

| Assess | Classify | Identify Treatment |
|---|---|---|
| Does the young infant have any one of the following?<br>● Convulsions<br>● Unable to feed at all<br>● No movement on stimulation<br>● Unable to cry<br>● Bulging fontanelle<br>● Cyanosis<br>● Unconscious<br>● Persistent vomiting<br>● Apnoea<br>● O2 saturation less than 90% | **CRITICAL ILLNESS** | ● ***Give first dose of both benzyl penicillin and gentamicin intramuscularly.***<br>● ***Explain to the caregiver that the infant is very sick and needs urgent referral for hospital care.***<br>● ***Treat to prevent low blood sugar.***<br>● ***Teach the mother how to keep the young infant warm on the way to the hospital.***<br>● ***Refer URGENTLY to hospital.***<br>● ***If referral is still not possible, continue treatment with daily IM gentamicin and twice-daily IM benzyl penicillin until referral is possible (up to 7 days).*** |
| Does the young infant have any one of the following:<br>● Not feeding well on observation<br>● Temperature 38oC or more<br>● Temperature less than 35.5o C<br>● Severe chest indrawing<br>● Movement only when stimulated | **CLINICAL SEVERE INFECTION** | ● ***Explain to the caregiver that the infant is very sick and needs urgent referral for hospital care.***<br>● ***Treat to prevent low blood sugar.***<br>● ***Teach the mother how to keep the young infant warm on the way to the hospital.***<br>● ***Refer URGENTLY to hospital.***<br>● ***If referral still is not possible,***<br>◦ Treat at outpatient clinic with daily intramuscular gentamicin.<br>◦ Give oral amoxicillin for 7 days.<br>◦ Teach the mother how to give the oral amoxicillin twice daily.<br>◦ Advise mother to come for the next injection the following day.<br>◦ Treat also for any other classifications that the young infant has.<br>◦ Reassess the young infant at each visit (see Follow-up Care, p. 46). |
| Does the young infant have:<br>● Fast breathing (60 breaths per minute or more) in infants less than 7 days old? | **SEVERE PNEUMONIA** | ● Give oral amoxicillin for 7 days.<br>● Teach the mother how to give the oral amoxicillin twice daily.<br>● Treat also for any other classifications that the young infant has.<br>● Advise the mother to return for follow up on day 4. |

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

Name:_____ Age:_____ Weight:___kg Height/Length:___cm Temp:___°C Initial Visit __ F/up Visit?__

Ask: What are the child's problems?_____

| **ASSESS** (Circle all signs present) | **CLASSIFY** |
|---|---|
| **Check for general danger signs**<br>• NOT ABLE TO DRINK OR BREASTFEED<br>• VOMITS EVERYTHING<br>• CONVULSIONS: If yes:<br>  ○ How many times?___ How long?_____min<br>• LETHARGIC OR UNCONSCIOUS<br>• CONVULSING NOW | **Remember to use Danger sign when selecting other classifications** |
| **Does the child have cough or difficult breathing? Yes ___No___**<br>• For how long? ___ Days<br>• Count the breaths in one minute<br>___ breaths per minute. Fast breathing?<br>• Look for chest indrawing<br>• Look and listen for stridor<br>• Look and listen for wheezing | |
| **Does the child have diarrhoea? Yes ___ No___**<br>• For how long? ___ Days<br>• Is there blood in the stool?<br>• Look at the child's general condition. Is the child:<br>  ○ Lethargic or unconscious? Restless and irritable?<br>• Look for sunken eyes.<br>• Offer the child fluid. Is the child:<br>  ○ Not able to drink /drinking poorly? Drinking eagerly, thirsty?<br>• Pinch the skin of the abdomen. Does it go back:<br>  ○ Very slowly (longer then 2 seconds)? Slowly? | |
| **Does the child have fever? (by history/feels hot/temperature 37.5°C or above) Yes___ No___**<br>For how long? ___ Days<br>• If more than 7 days, has fever been present every day?<br>• Has child had measels within the last 3 months?<br>Do mRDT if NO general danger sign or stiff neck. Test *Positive*? *Negative?*<br>• Look or feel for stiff neck<br>• Look for runny nose<br>• Look for signs of MEASLES:<br>  ○ Generalized rash and<br>  ○ One of these: cough, runny nose, or red eyes<br>• Look for any other cause of fever. | |
| **If the child has measles now or within the last 3 months:**<br>• Look for mouth ulcers. If yes, are they deep and extensive?<br>• Look for pus draining from the eye.<br>• Look for clouding of the cornea. | |
| **Does the child have an ear problem? Yes___ No___**<br>• Is there ear pain?<br>• Is there ear discharge?<br>If Yes, for how long? ___ Days<br>• Look for pus draining from the ear<br>• Feel for tender swelling behind the ear | |
| **Then check for acute malnutrition**<br>• Look for oedema of both feet.<br>• Determine WFH/L z-score:<br>  ○ Less than -3? Between -3 and -2? -2 or more?<br>• For children 6 months or older measure MUAC ____ cm. | |
| **If child has MUAC less than11.5 cm or WFH/L less than -3 Z scores or oedema of both feet:**<br>• Is there any medical complication: General danger sign?<br>Any severe classification? Pneumonia with chest indrawing?<br>• Child 6 months or older: Offer RUTF to eat. Is the child:<br>  ○ Not able to finish? Able to finish?<br>• Child less than 6 months: Is there a breastfeeding problem? | |
| **Then check for anaemia**<br>• Look for palmar pallor<br>  ○ Severe palmar pallor?<br>  ○ Some palmar pallor? mRDT Positive; mRDT Negative<br>  ○ No palmar pallor? | |
| **Then check for HIV infection**<br>• Note mother's and/or child's HIV status<br>  ○ Mother's HIV test: Negative or Positive<br>  ○ Child's DNA-PCR test: Negative or Positive<br>  ○ Child's HIV test: Negative or Postive<br>• If mother is HIV-positive and NO positive DNA-PCR test in child:<br>  ○ Is the child breastfeeding now?<br>  ○ Was the child breastfeeding at the time of test or 6 weeks before?<br>  ○ If breastfeeding: Is the mother and child on ARV prophylaxis? | |
| **Check for mouth and gum conditions (If on ART, HIV exposed OR HIV infected)**<br>• Is the child unable to eat due to painful mouth ulcers?<br>• Look for mouth or gum ulcer<br>  ○ Are they deep or extensive? | |
| **Check the child's Immunization, Vitamin A and deworming status (Circle needed today)**<br>Vaccine<br>_____ BCG; _____ Scar; _____ DPT-HepB-Hib1; _____ DPT-HepB-Hib2; _____ DPT-HepB-Hib3<br>_____ OPV 0; _____ OPV 1; _____ OPV 2<br>_____ PCV 1; _____ PCV 2; _____ PCV 3<br>_____ OPV 3 & IPV<br>____ Rota1; ____ Rota2<br>_____ Measles-Rubella 1<br>_____ Measles-Rubella 2<br>**Vitamin A**<br>____ 6-11; ____ 12-17; ____ 18-23; ____ 24-29; ____ 30-35; ____ 36-41; ____ 42-47; ____ 48-53; ____ 54-59<br>**Albendazole**<br>____ 12-17; ____ 18-23; ____ 24-29; ____ 30-35; ____ 36-41; ____ 42-47; ____ 48-53; ____ 54-59 | Return for next immunization, vitamin A or Albendazole on:<br>_____<br>(Date) |
| **Assess the child's feeding if less than 2 years old, has Moderate acute malnutrition, Anaemia, HIV Infected or is HIV exposed**<br>• Do you breastfeed your child? Yes ___ No ___<br>  ○ If yes, how many times in 24 hours? ___ times. Do you breastfeed during the night? Yes _ No __<br>• Does the child take any other foods or fluids? Yes ___ No ___<br>  ○ If Yes, what food or fluids?<br>  ○ How many times per day? ___ times. What do you use to feed the child?<br>  ○ If very low weight for age: How large are servings?<br>  ○ Does the child receive his or her own serving? ___ Who feeds the child and how?<br>• During this illness, has the child's feeding changed? Yes ___ No ___<br>  ○ If Yes, how? | FEEDING PROBLEMS |
| **Assess other problems:** Ask about mother's own health | |

**TREAT**

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

**Return for follow-up in .....days.**

**Advise when to return immediately.**

**Give immunisations needed today ..... Give feeding advice needed today.....**

**MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS**

Name:_____ Age:_____ Weight:____kg Temperature: ___°C Initial Visit? ___ F/up Visit? ___

ASK: What are the young infant's problems?_____

**ASSESS** (Circle all signs present) **CLASSIFY**

**Check for possible serious bacterial infection or very severe disease, pneumonia and local infection**

- Is the infant having difficulty in feeding?
- Has the infant had convulsions?
- Count the breaths in one minute. ___ breaths per minute
  Repeat if elevated (≥ 60)___ Fast breathing?
- Look for severe chest indrawing.
- Look if child is convulsing now
- Fever (temperature ≥38°C) or body temperature below 35.5°C
- Look at young infant's movements
  - Movement only when stimulated?
  - No movement at all?
  - Infant moves on his or her own?
- Look at the umbiculus. Is it red or draining pus?
- Look for skin pustules. Are there many or severe pustules?

**Then check for jaundice**

- When did the jaundice appear first?
- Look for yellow eyes or skin
- Look at the young infant's palms and soles. Are they yellow?

**Does the young infant have diarrhoea? Yes__ No__**

If yes, ASK:

- For how long? _____ days

Look at the young infant's general condition.

- Does the infant move only when stimulated?
- 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?

**Check for HIV infection**

ASK:

| | | | |
|---|---|---|---|
| HIV status of the mother? | Positive | Negative | Unknown |
| HIV rapid test of the infant? | Positive | Negative | Unknown |
| DNA-PCR test of the infant? | Positive | Negative | Unknown |

**Then check for feeding problem or low weight for age (if there is no indication for urgent referral)**

- Is the infant breastfed? Yes __No __
  If Yes, how many times in 24 hrs? __ times
- Does the infant receive any other foods or drinks?
  Yes ___ No ___
  If Yes, how often?_____ times

If yes, what do you use to feed the infant? _____

Determine weight for age

Ve ry low weight for age (< 1.5 kg or < -3 Z score)___

Low weight for age____

NOT low weight for age ____

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

**Assess breastfeeding: if the infant has difficult feeding, is feeding less than 8 times in 24 hours, is taking any other food or drinks, or is low weight for age, AND has no indication to refer urgently to the hospital:**

- Has the infant breastfed in the previous hour?
- If 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.
- Is the infant able to attach? To check attachment, look for:
  - More areola seen above than below the mouth Yes ___ No ___
  - Mouth wide open Yes ___ No ___
  - Lower lip turned outward Yes ___ No ___
  - Chin touching breast Yes ___ No ___

  *Good attachment Poor attachment*
  *No attachment at all*
- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?
  *Suckling effectively not suckling effectively*
  *not suckling at all*

**Assess feeding when the infant does not breastfeed**

- Is there any difficulty feeding?
- What milk are you giving?_____
- How many times during the day and night? _____
- How much is given at each feed?
- How are you preparing the milk?
  - Let the mother demonstrate or explain how a feed is prepared, and how it is given to the infant
- Are you giving any breastmilk at all?
- What foods or fluids in addition to the replacement feeding are given?
- How is the milk being given? Cup or bottle?
- How are you cleaning the feeding utensils?

- Determine weight for age:
  Very low weight for age (< 1.5 kg or < -3 Z score) __
  Low weight for age ____
  NOT low weight for age _____
- Look for ulcers or white patches in the mouth (thrush).

**Check the child's Immunization status (Circle immunizations needed today)**

| | | | | |
|---|---|---|---|---|
| ____ BCG | _____ DPT-HepB-Hib-1 | _____ PCV -1 | _____ Rotavirus-1 | _____ Vitamin A 200,000 I.U to mother |
| _____ OPV-0 | _____ OPV-1 | | | |

Return for next immunization on: _____ (Date)

**Assess other problems: Ask about mother's own health**

**Counsel the mother about her own health**

**TREAT**

**Return for follow up in .....days**

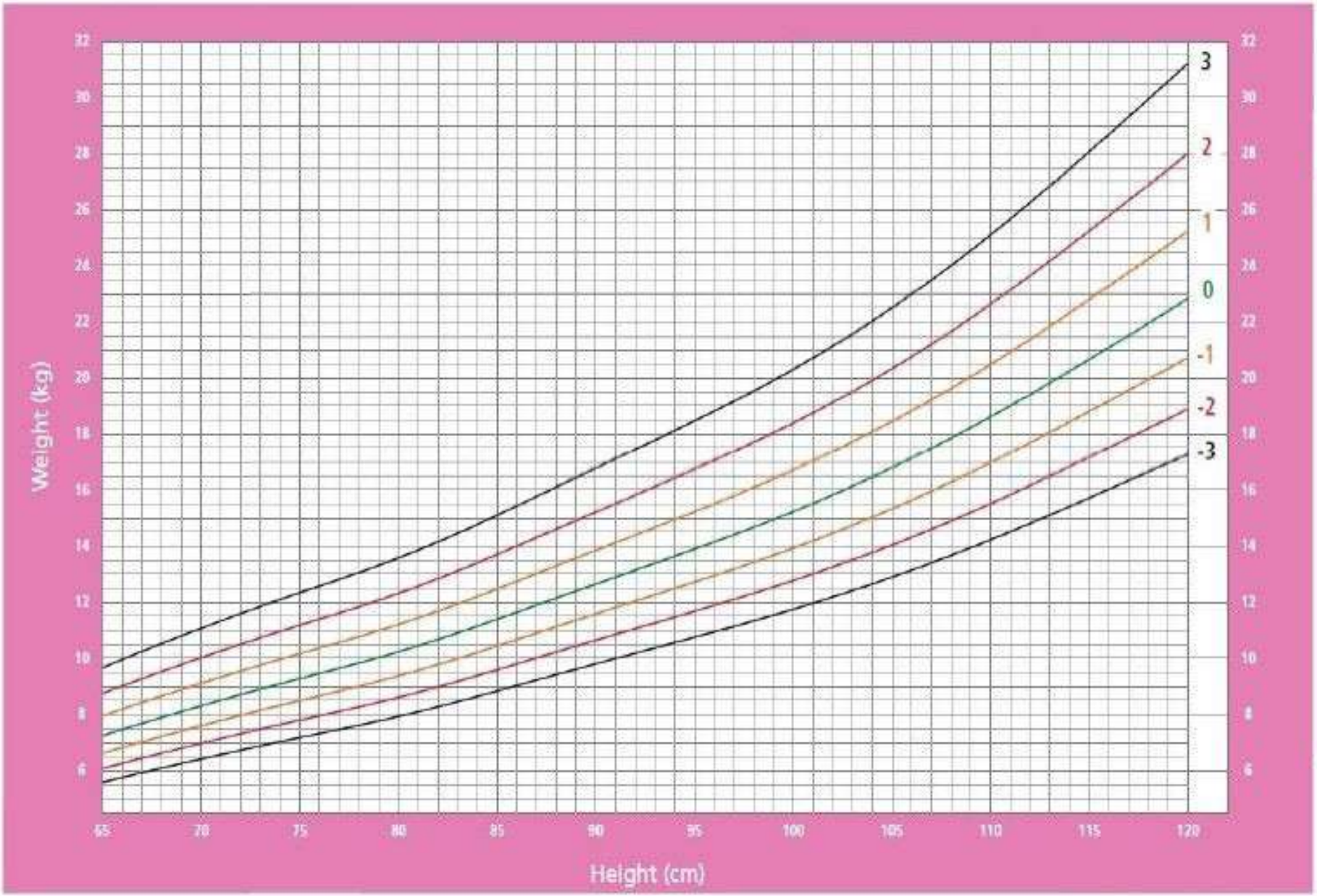
**Advise mother when to return immediately.**

**Give immunizations needed today..... Feeding advice needed today.....**

# Weight-for-Height GIRLS

2 to 5 years (z-scores)

World Health Organization




The chart shows weight relative to height in comparison to the median (Green 0 line).

A child whose WFH is:

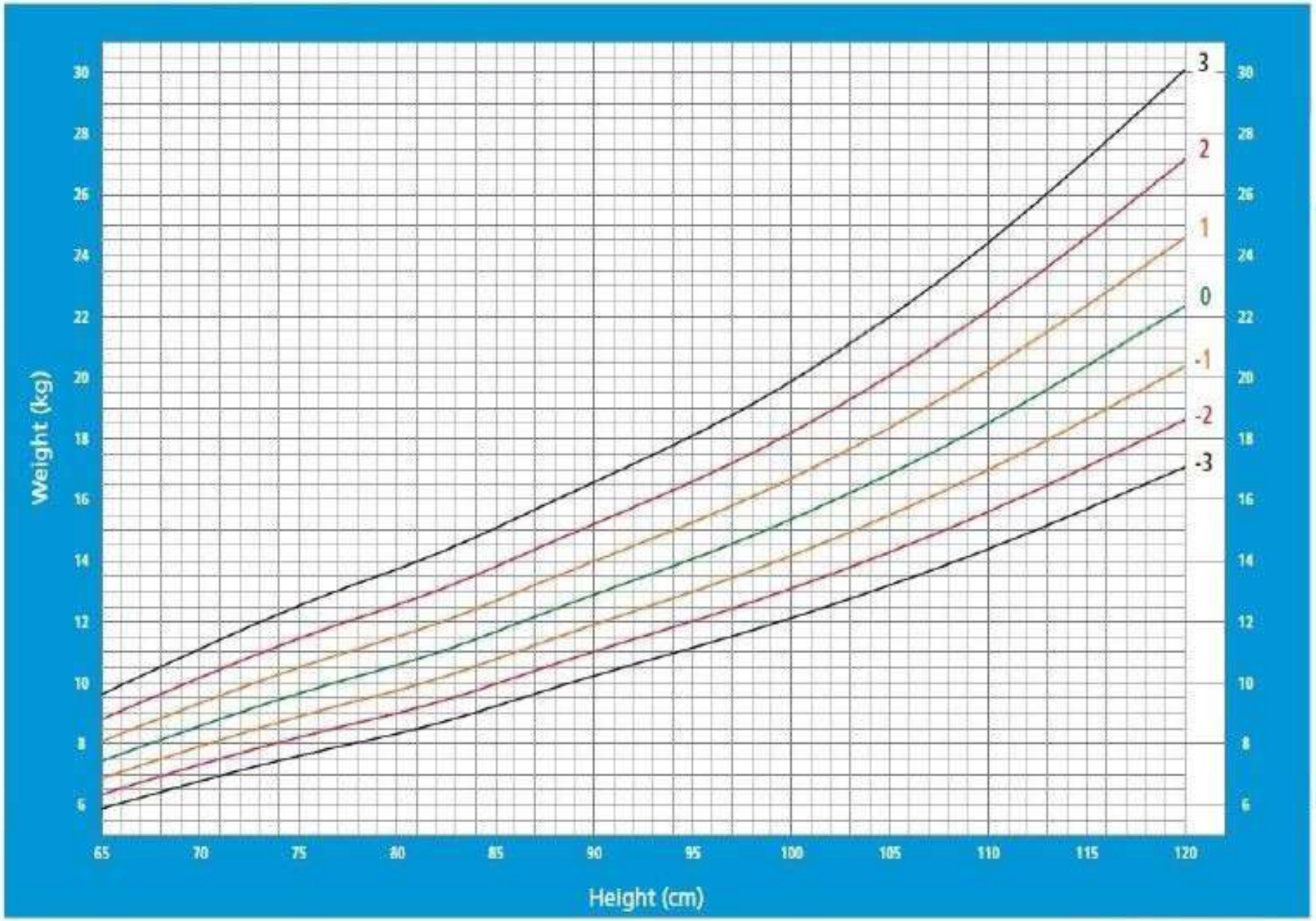
1. Below the line -3 has **Severe Acute Malnutrition**
2. Between line -2 and -3 has **Moderate Acute Malnutrition**
3. Above line -2 has **No Acute Malnutrition**
4. Between line 2 and 3 has **Overweight**
5. Above line 3 has **Obesity**

WHO Child Growth Standards

# Weight-for-height BOYS

2 to 5 years (z-scores)

World Health Organization




The chart shows weight relative to height in comparison to the median (Green 0 line).

A child whose WFH is:

1. Below the line -3 has **Severe Acute Malnutrition**
2. Between line -2 and -3 has **Moderate Acute Malnutrition**
3. Above line -2 has **No Acute Malnutrition**
4. Between line 2 and 3 has **Overweight**
5. Above line 3 has **Obesity**

WHO Child Growth Standards

# MOTHERS CARD

Name:..... M/F..... Date of Birth:.....

Address: .....

*Always bring the card with you to the clinic*

## WHEN TO RETURN IMMEDIATELY

***BRING ANY SICK CHILD IF***

• Not able to drink or breastfeed

• Becomes sicker

• Develops fever

***BRING CHILD WITH COUGH IF***

• Fast breathing

• Difficult breathing


***BRING CHILD WITH DIARRHOEA IF***

• Blood in stool

• Drinking poorly

***BRING YOUNG INFANT TO CLINIC IF ANY OF ABOVE SIGNS OR***

• Breastfeeding poorly

• Feels unusually cold

• Palms and soles appear yellow

## GIVE GOOD HOME CARE FOR YOUR CHILD

FOR ANY SICK CHILD :

- If child is breastfed, breastfeed more frequently and for longer at each feed.
- If child is taking breastmilk 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

EXCLUSIVELY BREASTFEED THE YOUNG INFANT

- Give only breastfeeds 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, yogurt drinks
  - ☐ Clean water
- Give zinc supplement, if the child aged more than 2 months and if zinc is given
- Continue giving extra fluid until the diarrhoea stops

## *IMMUNIZATION SCHEDULE*

| | |
|---|---|
| BCG | At birth |
| DPT+HepB-Hib 1 | 6 weeks of birth or later |
| Rotavirus -1 | 6 weeks of birth |
| PCV-1 | 6 weeks of birth |
| DPT+HepB-Hib 2 | 1 month after the first injection |
| Rotavirus -2 | 1 month after the first immunization |
| PCV-2 | 1 month after the first immunization |
| DPT+HepB-Hib 3 | 1 month after |
| PCV-3 | 1 month after the second immunization |
| OPV-0 | At birth |
| OPV-1 | 6 weeks of birth or later |
| OPV-2 | 1 month after the first immunization |
| OPV-3 | 1 month after the second immunization |
| Measles / Rubella 1 | At 9 months of age |
| Measles / Rubella 2 | At 15 months of age |
| Vitamin A | months to 59 months of age |

# FEEDING RECOMMENDATIONS DURING SICKNESS AND HEALTH

NOTE: These feeding recommendations should be followed for infants of HIV negative mothers.Mothers who do not know there HIV status should be advised to beastfeed but also to be tested so that they can make an informed choice.

## Up to 6 months

- Breastfeed as often as the child wants, day and night, at least 8 times in 24 hours.
- Do not give other foods or fluids.
- Use correct positioning and attachment

## 6 up to 12 months

- Breastfeed as often as the child wants.
- Give adequate servings of: Freshly prepared food nutritious foods from six groups for example:
- Enrinched mgaiwa phala with groundnuts, or beans or peas or eggs or cooking oil
- In addition give mashed fruit or fresh juice with the meal.
- Mashed nsima or cassava or rice or potatoes with beans or peas and vegetables made with groundnuts flour or cooking oil
- Give these foods 3 times per day if breastfed, plus snaks
- Give 5 times per day if not brestfed, plus snacks
- Give vitamin A
- Feed from a individual cup

## 12 months up to 2 years

- Breastfeed as often as the child wants.
- Give adequate servings of:
- Freshly prepared nutritious foods from the six food groups as
- recommended in the 6-12 months category
- or family foods
  - ☐ 3 or 4 times per day, plus snacks
  - ☐ 5 times per day plus snacks, if not breastfed
- Give vitamin A

## 2 years and older

- Breastfeed as often as the child wants.
- Give family foods at 3 meals each day. Also, twice daily, give nutritious food between meals, such as:

Chikondamoyo, banana, pawpaw, tangarine, mangoes.

Food combinations should be based on the six food groups.

## FEEDING RECOMMENDATIONS FOR A CHILD WHO HAS PERSISTENT DIARRHOEA

- If still breastfeeding, give more frequent, longer breastfeeds, day and night.
- If taking other milk:
  - ☐ replace with increased breastfeeding OR
  - ☐ replace with fermented milk products, such as yoghurt OR
  - ☐ replace half the milk with nutrient-rich semisolid food
- For other foods, follow feeding recommendations for the child's age.

# Weight for length tables birth to 2 years old (WHO, 2006)

Ministry of Health

## Weight for length 45.0 - 59.5cm lying down

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 1.9 | 2.0 | 2.2 | 2.4 | 45.0 | 2.5 | 2.3 | 2.1 | 1.9 |
| 1.9 | 2.1 | 2.3 | 2.5 | 45.5 | 2.5 | 2.3 | 2.1 | 2.0 |
| 2.0 | 2.2 | 2.4 | 2.6 | 46.0 | 2.6 | 2.4 | 2.2 | 2.0 |
| 2.1 | 2.3 | 2.5 | 2.7 | 46.5 | 2.7 | 2.5 | 2.3 | 2.1 |
| 2.1 | 2.3 | 2.5 | 2.8 | 47.0 | 2.8 | 2.6 | 2.4 | 2.2 |
| 2.2 | 2.4 | 2.6 | 2.9 | 47.5 | 2.9 | 2.6 | 2.4 | 2.2 |
| 2.3 | 2.5 | 2.7 | 2.9 | 48.0 | 3.0 | 2.7 | 2.5 | 2.3 |
| 2.3 | 2.6 | 2.8 | 3.0 | 48.5 | 3.1 | 2.8 | 2.6 | 2.4 |
| 2.4 | 2.6 | 2.9 | 3.1 | 49.0 | 3.2 | 2.9 | 2.6 | 2.4 |
| 2.5 | 2.7 | 3.0 | 3.2 | 49.5 | 3.3 | 3.0 | 2.7 | 2.5 |
| 2.6 | 2.8 | 3.0 | 3.3 | 50.0 | 3.4 | 3.1 | 2.8 | 2.6 |
| 2.7 | 2.9 | 3.1 | 3.4 | 50.5 | 3.5 | 3.2 | 2.9 | 2.7 |
| 2.7 | 3.0 | 3.2 | 3.5 | 51.0 | 3.6 | 3.3 | 3.0 | 2.8 |
| 2.8 | 3.1 | 3.3 | 3.6 | 51.5 | 3.7 | 3.4 | 3.1 | 2.8 |
| 2.9 | 3.2 | 3.5 | 3.8 | 52.0 | 3.8 | 3.5 | 3.2 | 2.9 |
| 3.0 | 3.3 | 3.6 | 3.9 | 52.5 | 3.9 | 3.6 | 3.3 | 3.0 |
| 3.1 | 3.4 | 3.7 | 4.0 | 53.0 | 4.0 | 3.7 | 3.4 | 3.1 |
| 3.2 | 3.5 | 3.8 | 4.1 | 53.5 | 4.2 | 3.8 | 3.5 | 3.2 |
| 3.3 | 3.6 | 3.9 | 4.3 | 54.0 | 4.3 | 3.9 | 3.6 | 3.3 |
| 3.4 | 3.7 | 4.0 | 4.4 | 54.5 | 4.4 | 4.0 | 3.7 | 3.4 |
| 3.6 | 3.8 | 4.2 | 4.5 | 55.0 | 4.5 | 4.2 | 3.8 | 3.5 |
| 3.7 | 4.0 | 4.3 | 4.7 | 55.5 | 4.7 | 4.3 | 3.9 | 3.6 |
| 3.8 | 4.1 | 4.4 | 4.8 | 56.0 | 4.8 | 4.4 | 4.0 | 3.7 |
| 3.9 | 4.2 | 4.6 | 5.0 | 56.5 | 5.0 | 4.5 | 4.1 | 3.8 |
| 4.0 | 4.3 | 4.7 | 5.1 | 57.0 | 5.1 | 4.6 | 4.3 | 3.9 |
| 4.1 | 4.5 | 4.9 | 5.3 | 57.5 | 5.2 | 4.8 | 4.4 | 4.0 |
| 4.3 | 4.6 | 5.0 | 5.4 | 58.0 | 5.4 | 4.9 | 4.5 | 4.1 |
| 4.4 | 4.7 | 5.1 | 5.6 | 58.5 | 5.5 | 5.0 | 4.6 | 4.2 |
| 4.5 | 4.8 | 5.3 | 5.7 | 59.0 | 5.6 | 5.1 | 4.7 | 4.3 |
| 4.6 | 5.0 | 5.4 | 5.9 | 59.5 | 5.7 | 5.3 | 4.8 | 4.4 |

# Weight for length tables birth to 2 years old (WHO, 2006)

Ministry of Health

**Weight for length** 60.0 - 75.0cm lying down

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 4.7 | 5.1 | 5.5 | 6.0 | 60.0 | 5.9 | 5.4 | 4.9 | 4.5 |
| 4.8 | 5.2 | 5.6 | 6.1 | 60.5 | 6.0 | 5.5 | 5.0 | 4.6 |
| 4.9 | 5.3 | 5.8 | 6.3 | 61.0 | 6.1 | 5.6 | 5.1 | 4.7 |
| 5.0 | 5.4 | 5.9 | 6.4 | 61.5 | 6.3 | 5.7 | 5.2 | 4.8 |
| 5.1 | 5.6 | 6.0 | 6.5 | 62.0 | 6.4 | 5.8 | 5.3 | 4.9 |
| 5.2 | 5.7 | 6.1 | 6.7 | 62.5 | 6.5 | 5.9 | 5.4 | 5.0 |
| 5.3 | 5.8 | 6.2 | 6.8 | 63.0 | 6.6 | 6.0 | 5.5 | 5.1 |
| 5.4 | 5.9 | 6.4 | 6.9 | 63.5 | 6.7 | 6.2 | 5.6 | 5.2 |
| 5.5 | 6.0 | 6.5 | 7.0 | 64.0 | 6.9 | 6.3 | 5.7 | 5.3 |
| 5.6 | 6.1 | 6.6 | 7.1 | 64.5 | 7.0 | 6.4 | 5.8 | 5.4 |
| 5.7 | 6.2 | 6.7 | 7.3 | 65.0 | 7.1 | 6.5 | 5.9 | 5.5 |
| 5.8 | 6.3 | 6.8 | 7.4 | 65.5 | 7.2 | 6.6 | 6.0 | 5.5 |
| 5.9 | 6.4 | 6.9 | 7.5 | 66.0 | 7.3 | 6.7 | 6.1 | 5.6 |
| 6.0 | 6.5 | 7.0 | 7.6 | 66.5 | 7.4 | 6.8 | 6.2 | 5.7 |
| 6.1 | 6.6 | 7.1 | 7.7 | 67.0 | 7.5 | 6.9 | 6.3 | 5.8 |
| 6.2 | 6.7 | 7.2 | 7.9 | 67.5 | 7.6 | 7.0 | 6.4 | 5.9 |
| 6.3 | 6.8 | 7.3 | 8.0 | 68.0 | 7.7 | 7.1 | 6.5 | 6.0 |
| 6.4 | 6.9 | 7.5 | 8.1 | 68.5 | 7.9 | 7.2 | 6.6 | 6.1 |
| 6.5 | 7.0 | 7.6 | 8.2 | 69.0 | 8.0 | 7.3 | 6.7 | 6.1 |
| 6.6 | 7.1 | 7.7 | 8.3 | 69.5 | 8.1 | 7.4 | 6.8 | 6.2 |
| 6.6 | 7.2 | 7.8 | 8.4 | 70.0 | 8.2 | 7.5 | 6.9 | 6.3 |
| 6.7 | 7.3 | 7.9 | 8.5 | 70.5 | 8.3 | 7.6 | 6.9 | 6.4 |
| 6.8 | 7.4 | 8.0 | 8.6 | 71.0 | 8.4 | 7.7 | 7.0 | 6.5 |
| 6.9 | 7.5 | 8.1 | 8.8 | 71.5 | 8.5 | 7.7 | 7.1 | 6.5 |
| 7.0 | 7.6 | 8.2 | 8.9 | 72.0 | 8.6 | 7.8 | 7.2 | 6.6 |
| 7.1 | 7.6 | 8.3 | 9.0 | 72.5 | 8.7 | 7.9 | 7.3 | 6.7 |
| 7.2 | 7.7 | 8.4 | 9.1 | 73.0 | 8.8 | 8.0 | 7.4 | 6.8 |
| 7.2 | 7.8 | 8.5 | 9.2 | 73.5 | 8.9 | 8.1 | 7.4 | 6.9 |
| 7.3 | 7.9 | 8.6 | 9.3 | 74.0 | 9.0 | 8.2 | 7.5 | 6.9 |
| 7.4 | 8.0 | 8.7 | 9.4 | 74.5 | 9.1 | 8.3 | 7.6 | 7.0 |
| 7.5 | 8.1 | 8.8 | 9.5 | 75.0 | 9.1 | 8.4 | 7.7 | 7.1 |

# Weight for length tables birth to 2 years old (WHO, 2006)

Ministry of Health

**Weight for length** 75.5 - 90.5cm lying down

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 7.6 | 8.2 | 8.8 | 9.6 | 75.5 | 9.2 | 8.5 | 7.8 | 7.1 |
| 7.6 | 8.3 | 8.9 | 9.7 | 76.0 | 9.3 | 8.5 | 7.8 | 7.2 |
| 7.7 | 8.3 | 9.0 | 9.8 | 76.5 | 9.4 | 8.6 | 7.9 | 7.3 |
| 7.8 | 8.4 | 9.1 | 9.9 | 77.0 | 9.5 | 8.7 | 8.0 | 7.4 |
| 7.9 | 8.5 | 9.2 | 10.0 | 77.5 | 9.6 | 8.8 | 8.1 | 7.4 |
| 7.9 | 8.6 | 9.3 | 10.1 | 78.0 | 9.7 | 8.9 | 8.2 | 7.5 |
| 8.0 | 8.7 | 9.4 | 10.2 | 78.5 | 9.8 | 9.0 | 8.2 | 7.6 |
| 8.1 | 8.7 | 9.5 | 10.3 | 79.0 | 9.9 | 9.1 | 8.3 | 7.7 |
| 8.2 | 8.8 | 9.5 | 10.4 | 79.5 | 10.0 | 9.1 | 8.4 | 7.7 |
| 8.2 | 8.9 | 9.6 | 10.4 | 80.0 | 10.1 | 9.2 | 8.5 | 7.8 |
| 8.3 | 9.0 | 9.7 | 10.5 | 80.5 | 10.2 | 9.3 | 8.6 | 7.9 |
| 8.4 | 9.1 | 9.8 | 10.6 | 81.0 | 10.3 | 9.4 | 8.7 | 8.0 |
| 8.5 | 9.1 | 9.9 | 10.7 | 81.5 | 10.4 | 9.5 | 8.8 | 8.1 |
| 8.5 | 9.2 | 10.0 | 10.8 | 82.0 | 10.5 | 9.6 | 8.8 | 8.1 |
| 8.6 | 9.3 | 10.1 | 10.9 | 82.5 | 10.6 | 9.7 | 8.9 | 8.2 |
| 8.7 | 9.4 | 10.2 | 11.0 | 83.0 | 10.7 | 9.8 | 9.0 | 8.3 |
| 8.8 | 9.5 | 10.3 | 11.2 | 83.5 | 10.9 | 9.9 | 9.1 | 8.4 |
| 8.9 | 9.6 | 10.4 | 11.3 | 84.0 | 11.0 | 10.1 | 9.2 | 8.5 |
| 9.0 | 9.7 | 10.5 | 11.4 | 84.5 | 11.1 | 10.2 | 9.3 | 8.6 |
| 9.1 | 9.8 | 10.6 | 11.5 | 85.0 | 11.2 | 10.3 | 9.4 | 8.7 |
| 9.2 | 9.9 | 10.7 | 11.6 | 85.5 | 11.3 | 10.4 | 9.5 | 8.8 |
| 9.3 | 10.0 | 10.8 | 11.7 | 86.0 | 11.5 | 10.5 | 9.7 | 8.9 |
| 9.4 | 10.1 | 11.0 | 11.9 | 86.5 | 11.6 | 10.6 | 9.8 | 9.0 |
| 9.5 | 10.2 | 11.1 | 12.0 | 87.0 | 11.7 | 10.7 | 9.9 | 9.1 |
| 9.6 | 10.4 | 11.2 | 12.1 | 87.5 | 11.8 | 10.9 | 10.0 | 9.2 |
| 9.7 | 10.5 | 11.3 | 12.2 | 88.0 | 12.0 | 11.0 | 10.1 | 9.3 |
| 9.8 | 10.6 | 11.4 | 12.4 | 88.5 | 12.1 | 11.1 | 10.2 | 9.4 |
| 9.9 | 10.7 | 11.5 | 12.5 | 89.0 | 12.2 | 11.2 | 10.3 | 9.5 |
| 10.0 | 10.8 | 11.6 | 12.6 | 89.5 | 12.3 | 11.3 | 10.4 | 9.6 |
| 10.1 | 10.9 | 11.8 | 12.7 | 90.0 | 12.5 | 11.4 | 10.5 | 9.7 |
| 10.2 | 11.0 | 11.9 | 12.8 | 90.5 | 12.6 | 11.5 | 10.6 | 9.8 |

# Weight for length tables birth to 2 years old (WHO, 2006)

Ministry of Health

**Weight for length** 91.0 - 106.0 cm lying down

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 10.3 | 11.1 | 12.0 | 13.0 | 91.0 | 12.7 | 11.7 | 10.7 | 9.9 |
| 10.4 | 11.2 | 12.1 | 13.1 | 91.5 | 12.8 | 11.8 | 10.8 | 10.0 |
| 10.5 | 11.3 | 12.2 | 13.2 | 92.0 | 13.0 | 11.9 | 10.9 | 10.1 |
| 10.6 | 11.4 | 12.3 | 13.3 | 92.5 | 13.1 | 12.0 | 11.0 | 10.1 |
| 10.7 | 11.5 | 12.4 | 13.4 | 93.0 | 13.2 | 12.1 | 11.1 | 10.2 |
| 10.7 | 11.6 | 12.5 | 13.5 | 93.5 | 13.3 | 12.2 | 11.2 | 10.3 |
| 10.8 | 11.7 | 12.6 | 13.7 | 94.0 | 13.5 | 12.3 | 11.3 | 10.4 |
| 10.9 | 11.8 | 12.7 | 13.8 | 94.5 | 13.6 | 12.4 | 11.4 | 10.5 |
| 11.0 | 11.9 | 12.8 | 13.9 | 95.0 | 13.7 | 12.6 | 11.5 | 10.6 |
| 11.1 | 12.0 | 12.9 | 14.0 | 95.5 | 13.8 | 12.7 | 11.6 | 10.7 |
| 11.2 | 12.1 | 13.1 | 14.1 | 96.0 | 14.0 | 12.8 | 11.7 | 10.8 |
| 11.3 | 12.2 | 13.2 | 14.3 | 96.5 | 14.1 | 12.9 | 11.8 | 10.9 |
| 11.4 | 12.3 | 13.3 | 14.4 | 97.0 | 14.2 | 13.0 | 12.0 | 11.0 |
| 11.5 | 12.4 | 13.4 | 14.5 | 97.5 | 14.4 | 13.1 | 12.1 | 11.1 |
| 11.6 | 12.5 | 13.5 | 14.6 | 98.0 | 14.5 | 13.3 | 12.2 | 11.2 |
| 11.7 | 12.6 | 13.6 | 14.8 | 98.5 | 14.6 | 13.4 | 12.3 | 11.3 |
| 11.8 | 12.7 | 13.7 | 14.9 | 99.0 | 14.8 | 13.5 | 12.4 | 11.4 |
| 11.9 | 12.8 | 13.9 | 15.0 | 99.5 | 14.9 | 13.6 | 12.5 | 11.5 |
| 12.0 | 12.9 | 14.0 | 15.2 | 100.0 | 15.0 | 13.7 | 12.6 | 11.6 |
| 12.1 | 13.0 | 14.1 | 15.3 | 100.5 | 15.2 | 13.9 | 12.7 | 11.7 |
| 12.2 | 13.2 | 14.2 | 15.4 | 101.0 | 15.3 | 14.0 | 12.8 | 11.8 |
| 12.3 | 13.3 | 14.4 | 15.6 | 101.5 | 15.5 | 14.1 | 13.0 | 11.9 |
| 12.4 | 13.4 | 14.5 | 15.7 | 102.0 | 15.6 | 14.3 | 13.1 | 12.0 |
| 12.5 | 13.5 | 14.6 | 15.9 | 102.5 | 15.8 | 14.4 | 13.2 | 12.1 |
| 12.6 | 13.6 | 14.8 | 16.0 | 103.0 | 15.9 | 14.5 | 13.3 | 12.3 |
| 12.7 | 13.7 | 14.9 | 16.2 | 103.5 | 16.1 | 14.7 | 13.5 | 12.4 |
| 12.8 | 13.9 | 15.0 | 16.3 | 104.0 | 16.2 | 14.8 | 13.6 | 12.5 |
| 12.9 | 14.0 | 15.2 | 16.5 | 104.5 | 16.4 | 15.0 | 13.7 | 12.6 |
| 13.0 | 14.1 | 15.3 | 16.6 | 105.0 | 16.5 | 15.1 | 13.8 | 12.7 |
| 13.2 | 14.2 | 15.4 | 16.8 | 105.5 | 16.7 | 15.3 | 14.0 | 12.8 |
| 13.3 | 14.4 | 15.6 | 16.9 | 106.0 | 16.9 | 15.4 | 14.1 | 13.0 |

# Weight for length tables birth to 2 years old (WHO, 2006)

Ministry of Health

## Weight for length 106.5 - 110.0 cm lying down

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 13.4 | 14.5 | 15.7 | 17.1 | 106.5 | 17.1 | 15.7 | 14.5 | 13.4 |
| 13.5 | 14.6 | 15.9 | 17.3 | 107.0 | 17.3 | 15.9 | 14.6 | 13.5 |
| 13.6 | 14.7 | 16.0 | 17.4 | 107.5 | 17.4 | 16.0 | 14.7 | 13.6 |
| 13.7 | 14.9 | 16.2 | 17.6 | 108.0 | 17.6 | 16.2 | 14.9 | 13.7 |
| 13.8 | 15.0 | 16.3 | 17.8 | 108.5 | 17.8 | 16.3 | 15.0 | 13.8 |
| 14.0 | 15.1 | 16.5 | 17.9 | 109.0 | 17.9 | 16.5 | 15.1 | 14.0 |
| 14.1 | 15.3 | 16.6 | 18.1 | 109.5 | 18.1 | 16.6 | 15.3 | 14.1 |
| 14.2 | 15.4 | 16.8 | 18.3 | 110.0 | 18.3 | 16.8 | 15.4 | 14.2 |

# Weight for height tables for children from 2-5 years old (WHO, 2006)

Ministry of Health

**Weight-for-height** 65.0 - 79.5cm Standing up

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 5.9 | 6.3 | 6.9 | 7.4 | 65.0 | 7.2 | 6.6 | 6.1 | 5.6 |
| 6.0 | 6.4 | 7.0 | 7.6 | 65.5 | 7.4 | 6.7 | 6.2 | 5.7 |
| 6.1 | 6.5 | 7.1 | 7.7 | 66.0 | 7.5 | 6.8 | 6.3 | 5.8 |
| 6.1 | 6.6 | 7.2 | 7.8 | 66.5 | 7.6 | 6.9 | 6.4 | 5.8 |
| 6.2 | 6.7 | 7.3 | 7.9 | 67.0 | 7.7 | 7.0 | 6.4 | 5.9 |
| 6.3 | 6.8 | 7.4 | 8.0 | 67.5 | 7.8 | 7.1 | 6.5 | 6.0 |
| 6.4 | 6.9 | 7.5 | 8.1 | 68.0 | 7.9 | 7.2 | 6.6 | 6.1 |
| 6.5 | 7.0 | 7.6 | 8.2 | 68.5 | 8.0 | 7.3 | 6.7 | 6.2 |
| 6.6 | 7.1 | 7.7 | 8.4 | 69.0 | 8.1 | 7.4 | 6.8 | 6.3 |
| 6.7 | 7.2 | 7.8 | 8.5 | 69.5 | 8.2 | 7.5 | 6.9 | 6.3 |
| 6.8 | 7.3 | 7.9 | 8.6 | 70.0 | 8.3 | 7.6 | 7.0 | 6.4 |
| 6.9 | 7.4 | 8.0 | 8.7 | 70.5 | 8.4 | 7.7 | 7.1 | 6.5 |
| 6.9 | 7.5 | 8.1 | 8.8 | 71.0 | 8.5 | 7.8 | 7.1 | 6.6 |
| 7.0 | 7.6 | 8.2 | 8.9 | 71.5 | 8.6 | 7.9 | 7.2 | 6.7 |
| 7.1 | 7.7 | 8.3 | 9.0 | 72.0 | 8.7 | 8.0 | 7.3 | 6.7 |
| 7.2 | 7.8 | 8.4 | 9.1 | 72.5 | 8.8 | 8.1 | 7.4 | 6.8 |
| 7.3 | 7.9 | 8.5 | 9.2 | 73.0 | 8.9 | 8.1 | 7.5 | 6.9 |
| 7.4 | 7.9 | 8.6 | 9.3 | 73.5 | 9.0 | 8.2 | 7.6 | 7.0 |
| 7.4 | 8.0 | 8.7 | 9.4 | 74.0 | 9.1 | 8.3 | 7.6 | 7.0 |
| 7.5 | 8.1 | 8.8 | 9.5 | 74.5 | 9.2 | 8.4 | 7.7 | 7.1 |
| 7.6 | 8.2 | 8.9 | 9.6 | 75.0 | 9.3 | 8.5 | 7.8 | 7.2 |
| 7.7 | 8.3 | 9.0 | 9.7 | 75.5 | 9.4 | 8.6 | 7.9 | 7.2 |
| 7.7 | 8.4 | 9.1 | 9.8 | 76.0 | 9.5 | 8.7 | 8.0 | 7.3 |
| 7.8 | 8.5 | 9.2 | 9.9 | 76.5 | 9.6 | 8.7 | 8.0 | 7.4 |
| 7.9 | 8.5 | 9.2 | 10.0 | 77.0 | 9.6 | 8.8 | 8.1 | 7.5 |
| 8.0 | 8.6 | 9.3 | 10.1 | 77.5 | 9.7 | 8.9 | 8.2 | 7.5 |
| 8.0 | 8.7 | 9.4 | 10.2 | 78.0 | 9.8 | 9.0 | 8.3 | 7.6 |
| 8.1 | 8.8 | 9.5 | 10.3 | 78.5 | 9.9 | 9.1 | 8.4 | 7.7 |
| 8.2 | 8.8 | 9.6 | 10.4 | 79.0 | 10.0 | 9.2 | 8.4 | 7.8 |
| 8.3 | 8.9 | 9.7 | 10.5 | 79.5 | 10.1 | 9.3 | 8.5 | 7.8 |

# Weight for height tables for children from 2-5 years old (WHO, 2006)

Ministry of Health

**Weight-for-height** 80.0 - 95.0 cm Standing up

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 8.3 | 9.0 | 9.7 | 10.6 | 80.0 | 10.2 | 9.4 | 8.6 | 7.9 |
| 8.4 | 9.1 | 9.8 | 10.7 | 80.5 | 10.3 | 9.5 | 8.7 | 8.0 |
| 8.5 | 9.2 | 9.9 | 10.8 | 81.0 | 10.4 | 9.6 | 8.8 | 8.1 |
| 8.6 | 9.3 | 10.0 | 10.9 | 81.5 | 10.6 | 9.7 | 8.9 | 8.2 |
| 8.7 | 9.3 | 10.1 | 11.0 | 82.0 | 10.7 | 9.8 | 9.0 | 8.3 |
| 8.7 | 9.4 | 10.2 | 11.1 | 82.5 | 10.8 | 9.9 | 9.1 | 8.4 |
| 8.8 | 9.5 | 10.3 | 11.2 | 83.0 | 10.9 | 10.0 | 9.2 | 8.5 |
| 8.9 | 9.6 | 10.4 | 11.3 | 83.5 | 11.0 | 10.1 | 9.3 | 8.5 |
| 9.0 | 9.7 | 10.5 | 11.4 | 84.0 | 11.1 | 10.2 | 9.4 | 8.6 |
| 9.1 | 9.9 | 10.7 | 11.5 | 84.5 | 11.3 | 10.3 | 9.5 | 8.7 |
| 9.2 | 10.0 | 10.8 | 11.7 | 85.0 | 11.4 | 10.4 | 9.6 | 8.8 |
| 9.3 | 10.1 | 10.9 | 11.8 | 85.5 | 11.5 | 10.6 | 9.7 | 8.9 |
| 9.4 | 10.2 | 11.0 | 11.9 | 86.0 | 11.6 | 10.7 | 9.8 | 9.0 |
| 9.5 | 10.3 | 11.1 | 12.0 | 86.5 | 11.8 | 10.8 | 9.9 | 9.1 |
| 9.6 | 10.4 | 11.2 | 12.2 | 87.0 | 11.9 | 10.9 | 10.0 | 9.2 |
| 9.7 | 10.5 | 11.3 | 12.3 | 87.5 | 12.0 | 11.0 | 10.1 | 9.3 |
| 9.8 | 10.6 | 11.5 | 12.4 | 88.0 | 12.1 | 11.1 | 10.2 | 9.4 |
| 9.9 | 10.7 | 11.6 | 12.5 | 88.5 | 12.3 | 11.2 | 10.3 | 9.5 |
| 10.0 | 10.8 | 11.7 | 12.6 | 89.0 | 12.4 | 11.4 | 10.4 | 9.6 |
| 10.1 | 10.9 | 11.8 | 12.8 | 89.5 | 12.5 | 11.5 | 10.5 | 9.7 |
| 10.2 | 11.0 | 11.9 | 12.9 | 90.0 | 12.6 | 11.6 | 10.6 | 9.8 |
| 10.3 | 11.1 | 12.0 | 13.0 | 90.5 | 12.8 | 11.7 | 10.7 | 9.9 |
| 10.4 | 11.2 | 12.1 | 13.1 | 91.0 | 12.9 | 11.8 | 10.9 | 10.0 |
| 10.5 | 11.3 | 12.2 | 13.2 | 91.5 | 13.0 | 11.9 | 11.0 | 10.1 |
| 10.6 | 11.4 | 12.3 | 13.4 | 92.0 | 13.1 | 12.0 | 11.1 | 10.2 |
| 10.7 | 11.5 | 12.4 | 13.5 | 92.5 | 13.3 | 12.1 | 11.2 | 10.3 |
| 10.8 | 11.6 | 12.6 | 13.6 | 93.0 | 13.4 | 12.3 | 11.3 | 10.4 |
| 10.9 | 11.7 | 12.7 | 13.7 | 93.5 | 13.5 | 12.4 | 11.4 | 10.5 |
| 11.0 | 11.8 | 12.8 | 13.8 | 94.0 | 13.6 | 12.5 | 11.5 | 10.6 |
| 11.1 | 11.9 | 12.9 | 13.9 | 94.5 | 13.8 | 12.6 | 11.6 | 10.7 |
| 11.1 | 12.0 | 13.0 | 14.1 | 95.0 | 13.9 | 12.7 | 11.7 | 10.8 |

# Weight for height tables for children from 2-5 years old (WHO, 2006)

Ministry of Health

**Weight-for-height** 95.5- 110.5cm Standing up

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 11.2 | 12.1 | 13.1 | 14.2 | 95.5 | 14.0 | 12.8 | 11.8 | 10.8 |
| 11.3 | 12.2 | 13.2 | 14.3 | 96.0 | 14.1 | 12.9 | 11.9 | 10.9 |
| 11.4 | 12.3 | 13.3 | 14.4 | 96.5 | 14.3 | 13.1 | 12.0 | 11.0 |
| 11.5 | 12.4 | 13.4 | 14.6 | 97.0 | 14.4 | 13.2 | 12.1 | 11.1 |
| 11.6 | 12.5 | 13.6 | 14.7 | 97.5 | 14.5 | 13.3 | 12.2 | 11.2 |
| 11.7 | 12.6 | 13.7 | 14.8 | 98.0 | 14.7 | 13.4 | 12.3 | 11.3 |
| 11.8 | 12.8 | 13.8 | 14.9 | 98.5 | 14.8 | 13.5 | 12.4 | 11.4 |
| 11.9 | 12.9 | 13.9 | 15.1 | 99.0 | 14.9 | 13.7 | 12.5 | 11.5 |
| 12.0 | 13.0 | 14.0 | 15.2 | 99.5 | 15.1 | 13.8 | 12.7 | 11.6 |
| 12.1 | 13.1 | 14.2 | 15.4 | 100.0 | 15.2 | 13.9 | 12.8 | 11.7 |
| 12.2 | 13.2 | 14.3 | 15.5 | 100.5 | 15.4 | 14.1 | 12.9 | 11.9 |
| 12.3 | 13.3 | 14.4 | 15.6 | 101.0 | 15.5 | 14.2 | 13.0 | 12.0 |
| 12.4 | 13.4 | 14.5 | 15.8 | 101.5 | 15.7 | 14.3 | 13.1 | 12.1 |
| 12.5 | 13.6 | 14.7 | 15.9 | 102.0 | 15.8 | 14.5 | 13.3 | 12.2 |
| 12.6 | 13.7 | 14.8 | 16.1 | 102.5 | 16.0 | 14.6 | 13.4 | 12.3 |
| 12.8 | 13.8 | 14.9 | 16.2 | 103.0 | 16.1 | 14.7 | 13.5 | 12.4 |
| 12.9 | 13.9 | 15.1 | 16.4 | 103.5 | 16.3 | 14.9 | 13.6 | 12.5 |
| 13.0 | 14.0 | 15.2 | 16.5 | 104.0 | 16.4 | 15.0 | 13.8 | 12.6 |
| 13.1 | 14.2 | 15.4 | 16.7 | 104.5 | 16.6 | 15.2 | 13.9 | 12.8 |
| 13.2 | 14.3 | 15.5 | 16.8 | 105.0 | 16.8 | 15.3 | 14.0 | 12.9 |
| 13.3 | 14.4 | 15.6 | 17.0 | 105.5 | 16.9 | 15.5 | 14.2 | 13.0 |
| 13.4 | 14.5 | 15.8 | 17.2 | 106.0 | 17.1 | 15.6 | 14.3 | 13.1 |
| 13.5 | 14.7 | 15.9 | 17.3 | 106.5 | 17.3 | 15.8 | 14.5 | 13.3 |
| 13.7 | 14.8 | 16.1 | 17.5 | 107.0 | 17.5 | 15.9 | 14.6 | 13.4 |
| 13.8 | 14.9 | 16.2 | 17.7 | 107.5 | 17.7 | 16.1 | 14.7 | 13.5 |
| 13.9 | 15.1 | 16.4 | 17.8 | 108.0 | 17.8 | 16.3 | 14.9 | 13.7 |
| 14.0 | 15.2 | 16.5 | 18.0 | 108.5 | 18.0 | 16.4 | 15.0 | 13.8 |
| 14.1 | 15.3 | 16.7 | 18.2 | 109.0 | 18.2 | 16.6 | 15.2 | 13.9 |
| 14.3 | 15.5 | 16.8 | 18.3 | 109.5 | 18.4 | 16.8 | 15.4 | 14.1 |
| 14.4 | 15.6 | 17.0 | 18.5 | 110.0 | 18.6 | 17.0 | 15.5 | 14.2 |
| 14.5 | 15.8 | 17.1 | 18.7 | 110.5 | 18.8 | 17.1 | 15.7 | 14.4 |

# Weight for height tables for children from 2-5 years old (WHO, 2006)

Ministry of Health

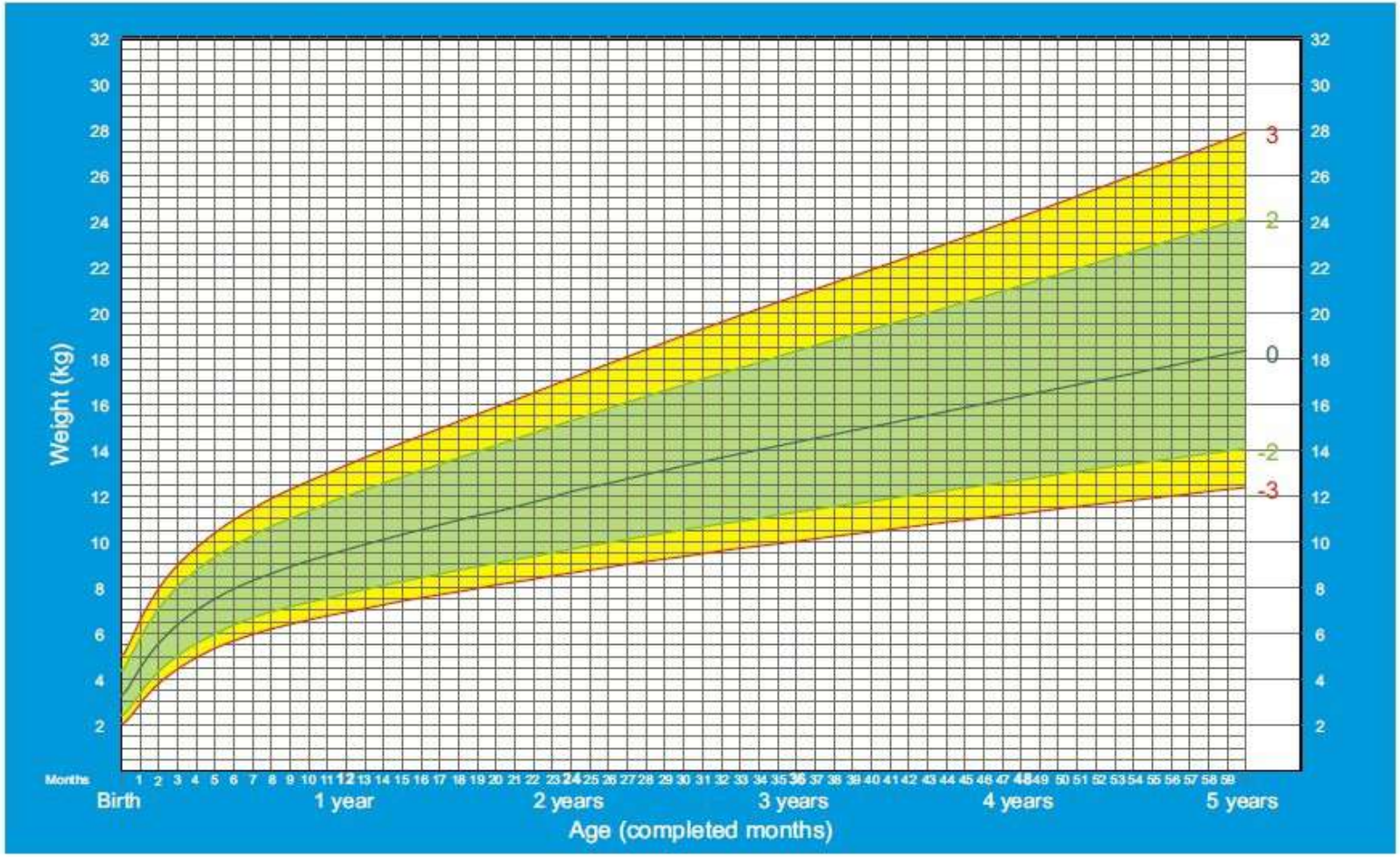
**Weight-for-height** 111.0 - 120.0 cm Standing up

| BOYS | | | | Height | GIRLS | | | |
|---|---|---|---|---|---|---|---|---|
| -3 Z | -2 Z | -1 Z | Median | cm | Median | -1 Z | -2 Z | -3 Z |
| 14.6 | 15.9 | 17.3 | 18.9 | 111.0 | 18.9 | 17.3 | 15.9 | 14.6 |
| 14.8 | 16.0 | 17.5 | 19.1 | 111.5 | 19.1 | 17.5 | 16.0 | 14.8 |
| 14.9 | 16.2 | 17.6 | 19.2 | 112.0 | 19.2 | 17.6 | 16.2 | 14.9 |
| 15.0 | 16.3 | 17.8 | 19.4 | 112.5 | 19.4 | 17.8 | 16.3 | 15.0 |
| 15.2 | 16.5 | 18.0 | 19.6 | 113.0 | 19.6 | 18.0 | 16.5 | 15.2 |
| 15.3 | 16.6 | 18.1 | 19.8 | 113.5 | 19.8 | 18.1 | 16.6 | 15.3 |
| 15.4 | 16.8 | 18.3 | 20.0 | 114.0 | 20.0 | 18.3 | 16.8 | 15.4 |
| 15.6 | 16.9 | 18.5 | 20.2 | 114.5 | 20.2 | 18.5 | 16.9 | 15.6 |
| 15.7 | 17.1 | 18.6 | 20.4 | 115.0 | 20.4 | 18.6 | 17.1 | 15.7 |
| 15.8 | 17.2 | 18.8 | 20.6 | 115.5 | 20.6 | 18.8 | 17.2 | 15.8 |
| 16.0 | 17.4 | 19.0 | 20.8 | 116.0 | 20.8 | 19.0 | 17.4 | 16.0 |
| 16.1 | 17.5 | 19.2 | 21.0 | 116.5 | 21.0 | 19.2 | 17.5 | 16.1 |
| 16.2 | 17.7 | 19.3 | 21.2 | 117.0 | 21.2 | 19.3 | 17.7 | 16.2 |
| 16.4 | 17.9 | 19.5 | 21.4 | 117.5 | 21.4 | 19.5 | 17.9 | 16.4 |
| 16.5 | 18.0 | 19.7 | 21.6 | 118.0 | 21.6 | 19.7 | 18.0 | 16.5 |
| 16.7 | 18.2 | 19.9 | 21.8 | 118.5 | 21.8 | 19.9 | 18.2 | 16.7 |
| 16.8 | 18.3 | 20.0 | 22.0 | 119.0 | 22.0 | 20.0 | 18.3 | 16.8 |
| 16.9 | 18.5 | 20.2 | 22.2 | 119.5 | 22.2 | 20.2 | 18.5 | 16.9 |
| 17.1 | 18.6 | 20.4 | 22.4 | 120.0 | 22.4 | 20.4 | 18.6 | 17.1 |

# GROWTH CHARTS FOR BOYS

## Weight-for-age BOYS

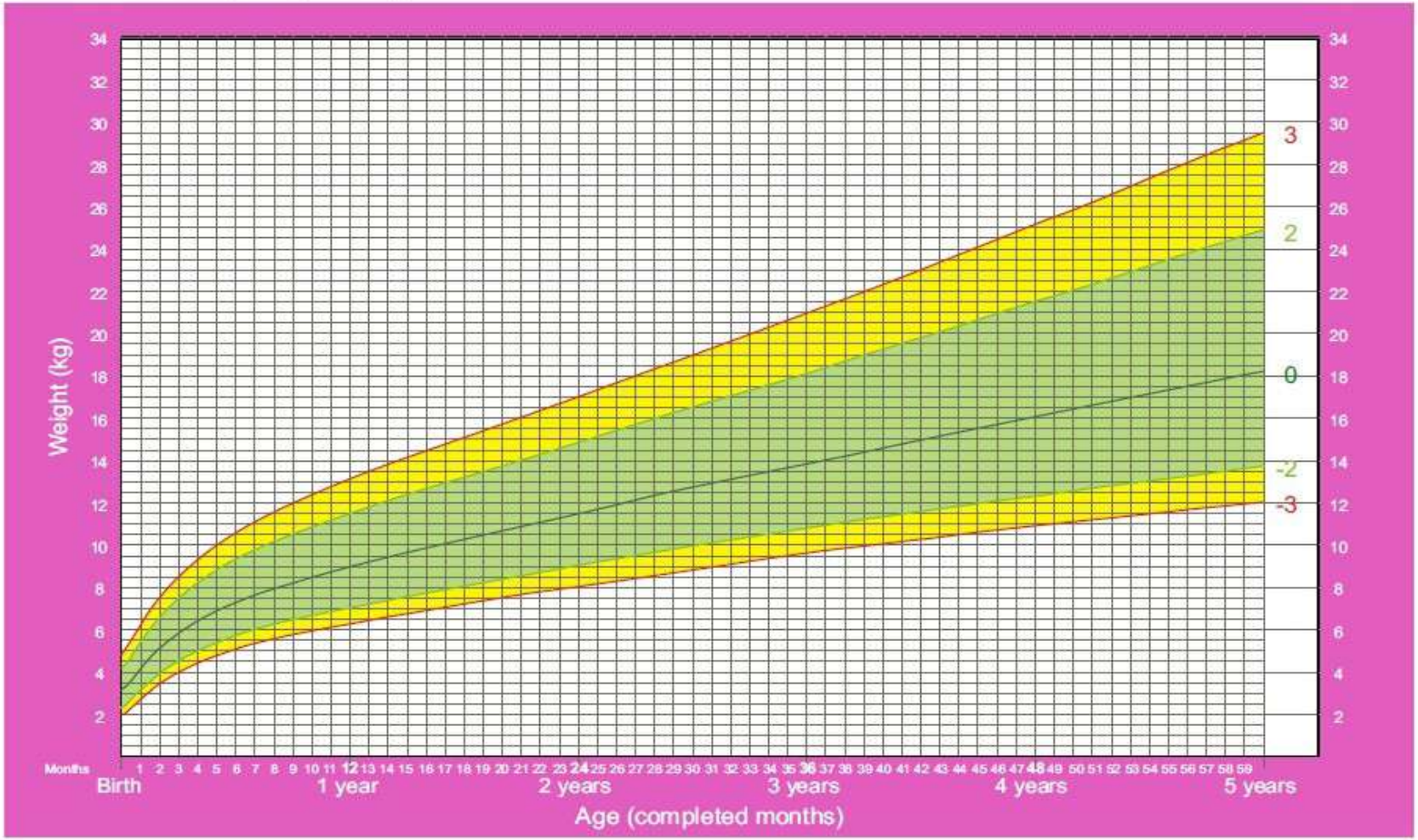
Birth to 5 years (z-scores)



# GROWTH CHARTS FOR GIRLS

## Weight-for-age GIRLS

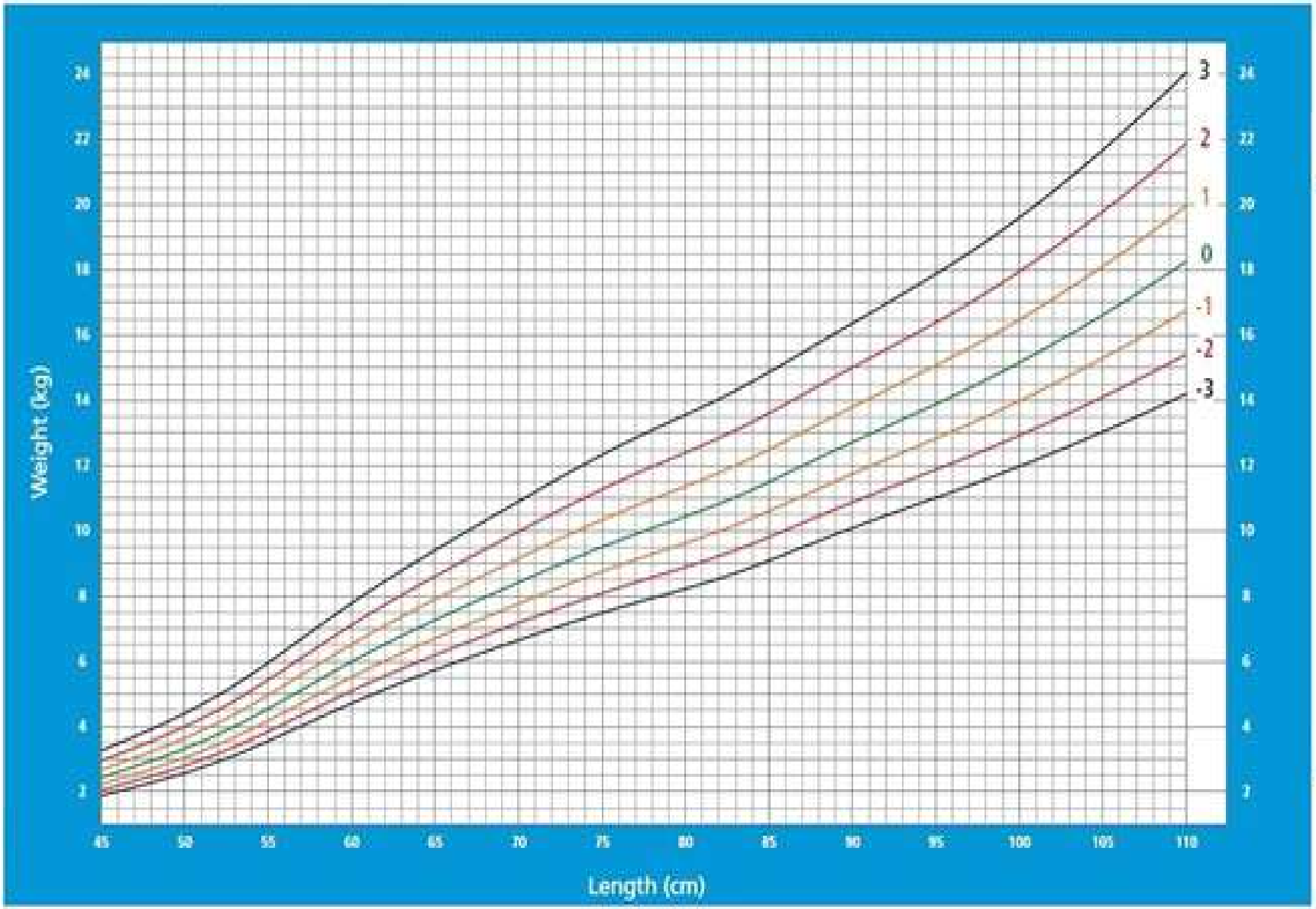
Birth to 5 years (z-scores)



# Weight-for-length BOYS

Birth to 2 years (z-scores)

World Health Organization




The chart shows weight relative to length in comparison to the median (Green 0 line).

A child whose W/L is:

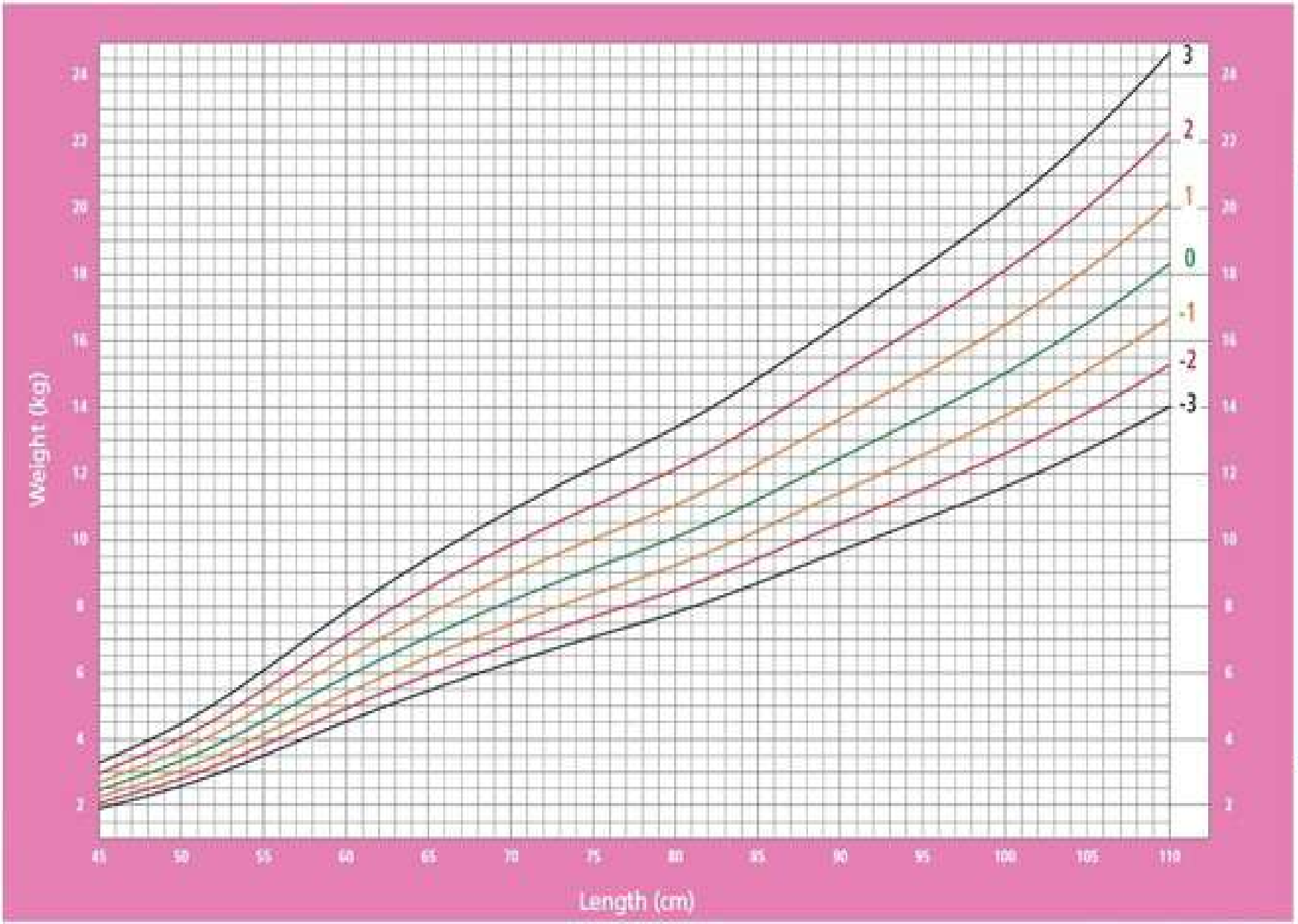
1. Below the line -3 has **Severe Acute Malnutrition**
2. Between line -2 and -3 has **Moderate Acute Malnutrition**
3. Above line -2 has **No Acute Malnutrition**
4. Between line 2 and 3 has **Overweight**
5. Above line 3 has **Obesity**

WHO Child Growth Standards

# Weight-for-length GIRLS

World Health Organization

Birth to 2 years (z-scores)




The chart shows weight relative to length in comparison to the median (Green 0 line):

A child whose WFL is

1. Below the line -3 has **Severe Acute Malnutrition**
2. Between line -2 and -3 has **Moderate Acute Malnutrition**
3. Above line -2 has **No Acute Malnutrition**
4. Between line 2 and 3 has **Overweight**
5. Above line 3 has **Obesity**

WHO Child Growth Standards