INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

YOUNG INFANT (BIRTH UP TO 2 MONTHS)

CHILD AGE 2 MONTHS UP TO 5 YEARS

ANTI-RETROVIRAL THERAPY (ART)

SKIN PROBLEMS

ANNEXURES

COUNSEL THE MOTHER OR CAREGIVER ON INFANT AND YOUNG CHILD FEEDING

IMCI PROCESS FOR ALL YOUNG INFANTS (BIRTH UP TO TWO MONTHS)

HAS THE INFANT JUST BEEN DELIVERED?

YES

- **Provide Emergency Newborn Care**
- **Resuscitate using the Helping Babies Breathe (HBB) chart (p. 3)**
- Keep baby warm (p. 12)
- ASSESS and CLASSIFY for POSSIBLE SERIOUS BACTERIAL INFECTION and provide any treatments (p. 4)
- Support mother to initiate breastfeeding (p. 21)
- Refer to maternity unit/hospital

NO

- GREET THE CAREGIVER
- ASK: Why the caregiver has brought the child to the health facility today?
- DETERMINE IF THIS IS AN INITIAL, FOLLOW UP or ROUTINE VISIT
- Ensure that an infant who has come for an INITIAL VISIT (i.e. because they are sick) is fast-tracked.
- Measure the infant's weight and temperature

IF THE INFANT BEEN BROUGHT TO THE FACILITY BECAUSE S/HE IS SICK (INITIAL VISIT):

- **URGENTLY ASSESS and CLASSIFY** for **POSSIBLE SERIOUS BACTERIAL INFECTION** (p. 4)
- Then complete the YOUNG INFANT assessment (p. 5 - 11)
- Provide treatment (including pre-referral treatment and referral if required)
- Counsel the caregiver on Home Care for the Young Infant and When to Return (p. 15)
- Assess breastfeeding and support the mother to successfully breastfeed the infant (p. 20 - 22)

IF THIS IS A FOLLOW-UP VISIT:

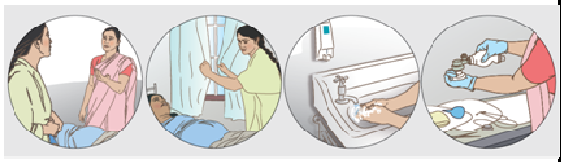
- Complete the YOUNG INFANT assessment including ASSESS and CLASSIFY for POSSIBLE SERIOUS BACTERIAL INFECTION (p. 4)
- Provide FOLLOW-UP CARE (p. 16)
- Counsel the caregiver on Home Care for the Young Infant and When to Return (p. 15)
- Assess breastfeeding and support the mother to successfully breastfeed the infant (p. 20 - 22)

IF THE YOUNG INFANT HAS BEEN BROUGHT FOR A ROUTINE POST-NATAL OR WELL CHILD VISIT:

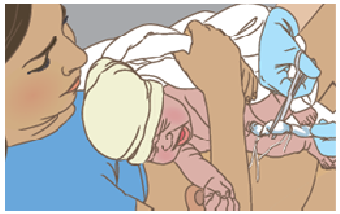
- Complete the YOUNG INFANT assessment including ASSESS and CLASSIFY for POSSIBLE SERIOUS BACTERIAL INFECTION (p. 4)
- TREAT (if necessary)
- Counsel the caregiver on Home Care for the Young Infant and When to Return (p.15)
- Assess breastfeeding and support the mother to successfully breastfeed the infant (p. 20 - 22)

HELPING BABIES BREATHE CHART

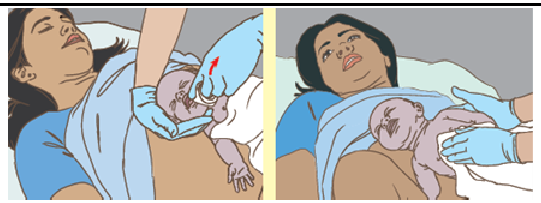
Prepare for birth
- ☐ Identify a nurse or helper to assist with care
- ☐ Review the emergency plan
- ☐ Prepare the area for delivery
- ☐ Wash Hands
- ☐ Prepare area for Ventilation and check equipment



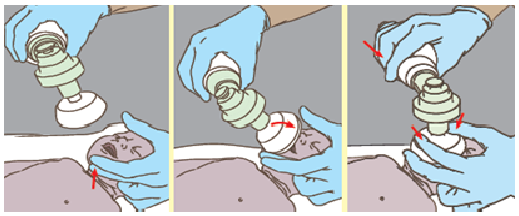
Routine care for baby who is crying and breathing well.
- ☐ Dry the baby thoroughly at birth
- ☐ If there is meconium, clear the airway first
- ☐ ***ASK: Is the baby crying?***
- ☐ If the baby is crying keep warm and check breathing
- ☐ Cut Cord in 1 – 3 minutes
- ☐ Monitor with mother and initiate breastfeeding



Golden minute clear airway stimulate
- ☐ If baby is not breathing well
- ☐ Clear airway, stimulate
- ☐ Check if the baby is breathing well,
- ☐ Keep warm and check breathing
- ☐ Clamp the cord
- ☐ Keep skin to skin and initiate feeding

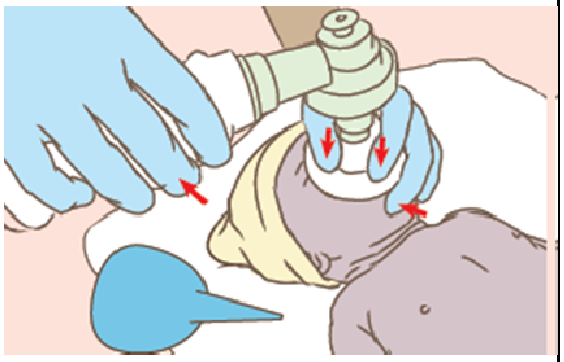


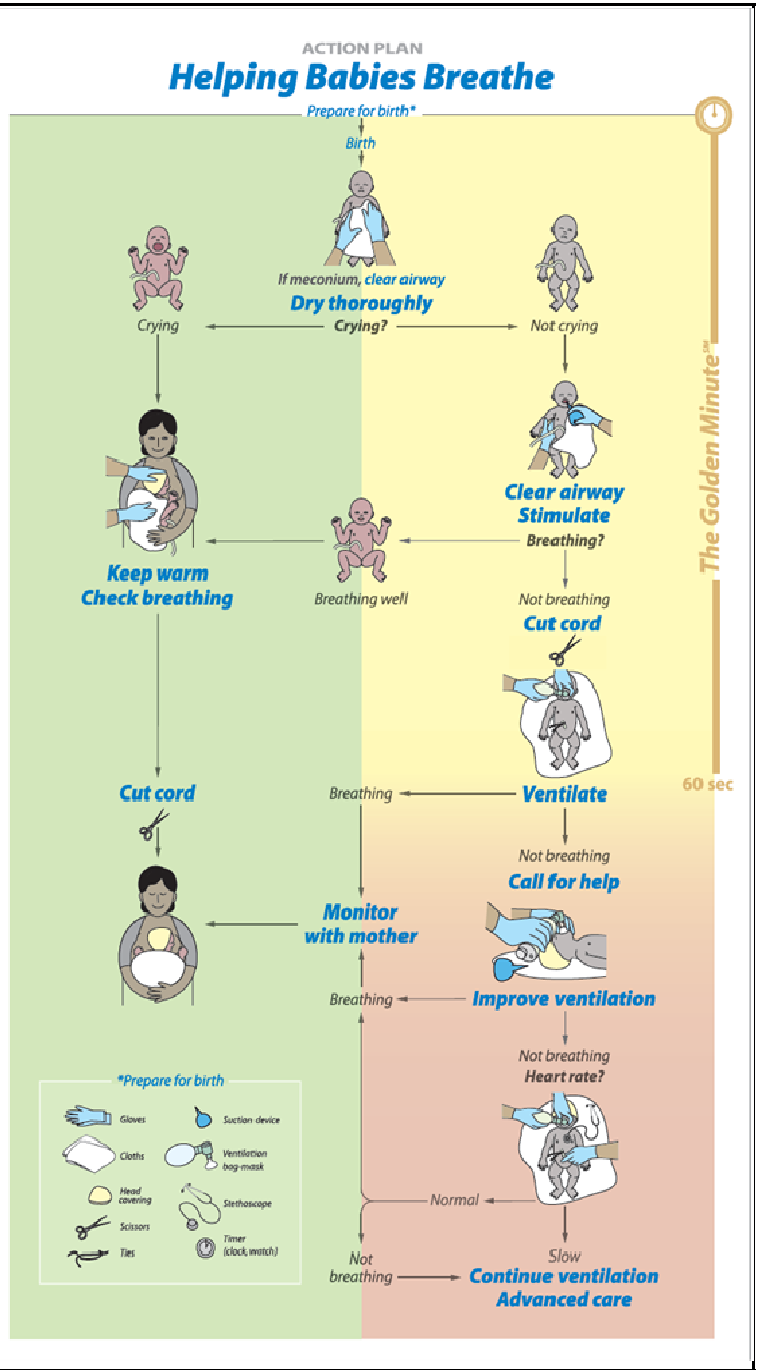
The golden minute
- ☐ IF Baby is still not breathing
- ☐ Cut the cord
- ☐ Ventilate with Bag and Mask
- ☐ Give 40 breaths per minute; Count Bag, 2,3, Bag 2,3,….
- ☐ Continue to ventilate until the baby is breathing well



Baby is still not breathing well after bag valve mask ventilation
- ☐ Call for help
- ☐ Improve ventilation with Bag and Mask
- ☐ Check the heart rate if the heart rate is normal continue ventilation (Is the heart rate above 100 beats per minute?)
- ☐ If the heart rate is slow baby requires advanced care
  - ☐ Cardiac compression
  - ☐ Adrenaline

Stop resuscitation if:
- ☐ *no heart beat or breathing at 10 minutes OR*
- ☐ *no breathing after 20 minutes OR*
- ☐ *only gasping after 30 minutes*





ASSESS AND CLASSIFY THE YOUNG INFANT (BIRTH UP TO 2 MONTHS)

CHECK FOR POSSIBLE BACTERIAL INFECTION AND JAUNDICE

ASK:

- Has the infant had convulsions?
- Has the infant had any attacks where he stops breathing, or becomes stiff or blue (apnoea)?

LOOK, LISTEN, FEEL:

- Is the infant convulsing now?
- Count the breaths in one minute. Repeat the count if elevated.

  Look for severe chest indrawing

  } YOUNG INFANT MUST BE CALM
- Look for nasal flaring.
- Listen for grunting.
- Look and feel for bulging fontanelle.
- Measure temperature (or feel for fever or low body temperature).
- Look at the young infant's movements. Does he/she only move when stimulated?
- Look for discharge from the eyes. Is there a purulent or sticky discharge? Is there abundant pus? Are the eyelids swollen
- Look at the umbilicus. Is it red or draining pus? Does the redness extend to the skin?
- Look for skin pustules. Are there many or severe pustules?
- Look for jaundice (yellow eyes or skin)
- Look at the young infant's palms and soles. Are they yellow?

Classify ALL young infants

Any one of these: • Convulsions with this illness. • Apnoea or breathing < 30 per minute • Fast breathing (> 60 per minute), severe chest indrawing, nasal flaring or grunting. • Bulging fontanelle. • Fever (37.5°or above or feels hot) or low body temperature (less than 35.5°or feels cold). • Only moves when stimulated. • Abundant pus/purulent discharge from eyes, or swollen eyelids • Umbilical redness extending to the skin and/or draining pus. • Many or severe skin pustules.	**POSSIBLE SERIOUS BACTERIAL INFECTION**	➢ **Give diazepam rectally if convulsing at present (p. 36)** ➢ **Give oxygen if indicated (p. 12)** ➢ **Give first dose of ceftriaxone IM (p. 13)** ➢ **If fast breathing, chest indrawing or grunting, give cotrimoxazole 2.5 ml if older than 1 month (p. 39)** ➢ **If there is abundant pus or purulent discharge or eyelids are swollen, irrigate with normal saline immediately. Repeat hourly until referral.** ➢ **Test for low blood sugar, and treat or prevent (p. 12)** ➢ **Breastfeed if possible** ➢ **Keep the infant warm on the way (p. 12)** ➢ **Refer URGENTLY**
• Purulent (small amount) or sticky discharge of eyes **OR** • Red umbilicus. **OR** • Skin pustules.	**LOCAL BACTERIAL INFECTION**	➢ Treat skin pustules and a red umbilicus with cephalexin or flucloxacillin (p. 13) ➢ Give chloramphenicol eye ointment if sticky or purulent discharge of eyes is present (p. 13) ➢ If the discharge is purulent, give one dose of Ceftriaxone (p. 13). Follow-up after one day (p. 16). ➢ Teach the caregiver to treat local infections at home (p. 14) and counsel on home care for the young infant (p. 15) ➢ Follow-up in 2 days (p. 16)
• None of the above signs.	**NO BACTERIAL INFECTION**	➢ Counsel the caregiver on home care for the young infant (p. 15)

Classify ALL young infants

• Any jaundice if age less than 24 hours **OR** • Yellow palms and soles	**SEVERE JAUNDICE**	➢ **Test for low blood sugar, and treat or prevent (p. 12)** ➢ **Keep the infant warm (p. 12)** ➢ **Refer URGENTLY**
• Jaundice appearing after 24 hours of age **AND** • Palms and soles not yellow	**JAUNDICE**	➢ Advise the caregiver to return immediately if palms and soles appear yellow (p. 16) ➢ Follow-up in 1 day (p. 16) ➢ If the young infant is older than 14 days, refer for assessment
• No jaundice	**NO JAUNDICE**	➢ Counsel the caregiver on home care for the young infant (p. 15)

DOES THE YOUNG INFANT HAVE DIARRHOEA?

IF YES, ASK:

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

LOOK AND FEEL:

- Look at the young infant's general condition. Is the infant:
  - Lethargic or unconscious?
  - Restless and irritable?
- Look for sunken eyes.
- Pinch the skin of the abdomen. Does it go back:
  - Very slowly (> 2 seconds)?
  - Slowly?

Classify DIARRHOEA

A YOUNG INFANT HAS DIARRHOEA IF THE STOOLS HAVE CHANGED FROM THE USUAL PATTERN, AND ARE MANY AND WATERY (MORE WATER THAN FAECAL MATTER)

for DEHYDRATION	Two of the following signs: • Lethargic or unconscious. • Sunken eyes. • Skin pinch goes back very slowly. • Young infant less than one month of age.	**SEVERE DEHYDRATION**	➢ **Start intravenous infusion (Plan C, p. 44)** ➢ **Give first dose of ceftriaxone IM (p. 13)** ➢ **Breastfeed or give frequent sips of ORS if possible** ➢ **Keep the infant warm on the way to hospital (p. 12)** ➢ **Refer URGENTLY**
	Two of the following signs: • Restless, irritable. • Sunken eyes. • Skin pinch goes back slowly.	**SOME DEHYDRATION**	➢ If other severe classification, refer with breastfeeding or ORS sips on the way ➢ Give fluid for some dehydration Plan B (p. 43) ➢ Advise mother to continue breastfeeding ➢ Give zinc for 14 days (p. 42) ➢ Follow-up in 2 days (p. 16) ➢ Counsel the caregiver on home care for the young infant (p. 15)
	• Not enough signs to classify as some or severe dehydration.	**NO VISIBLE DEHYDRATION**	➢ Give fluids to treat for diarrhoea at Home (Plan A p. 43) ➢ If exclusively breastfed, do not give other fluids except SSS ➢ Give zinc for 14 days (p. 42) ➢ Counsel the caregiver on home care for the young infant (p. 15) ➢ Follow-up in 2 days (p. 16)
AND diarrhoea 14 days or more	• Diarrhoea lasting 14 days or more	**SEVERE PERSISTENT DIARRHOEA**	➢ **Refer after treating for dehydration if present** ➢ **Keep the infant warm on the way to hospital (p. 12)**
AND if blood in stool	• Blood in the stool.	**SERIOUS ABDOMINAL PROBLEM**	➢ **Refer URGENTLY.** ➢ **Keep the infant warm on the way to hospital (p. 12)**

THEN ASK: WAS THE YOUNG INFANT EXAMINED BY A HEALTH WORKERS AFTER BIRTH?

IF NO, ASSESS FOR CONGENITAL PROBLEMS

ASK:

- Ask the mother if she has any concerns
- Ask for any identified birth defects or other problems
- Was the mother's RPR tested in pregnancy?
- If yes, was it positive or negative?
- If positive, did she receive treatment?
- If yes, how many doses?
- How long before delivery did she receive the last dose?

LOOK AND FEEL:

- Measure head circumference,

LOOK FOR PRIORITY SIGNS

- Cleft lip or palate
- Imperforate anus
- Nose not patent
- Macrocephaly (birth head circumference more than 39 cm)
- Ambiguous Genitalia
- Abdominal distention
- Very low birth weight (≤ 2kg)

LOOK FOR OTHER ABNORMAL SIGNS

HEAD AND NECK

- Microcephaly (Birth head circumference less than 32 cm)
- Fontanelle or sutures abnormal
- Swelling of scalp, abnormal shape
- Neck swelling or webbing
- Face, eyes, mouth or nose abnormal
- Unusual appearance

LIMBS AND TRUNK

- Abnormal position of limbs
- Club foot
- Abnormal fingers and toes, palms
- Abnormal chest, back and abdomen
- Undescended testis or hernia

Classify Young Infant

Any one of the PRIORITY SIGNS: • Cleft palate or lip • Imperforate anus • Nose not patent • Macrocephaly • Ambiguous genitalia • Abdominal distention • Very low birth weight (≤ 2kg)	**MAJOR ABNORMALITY OR SERIOUS ILLNESS**	➢ **Keep warm, skin to skin or in transport incubator (p. 12)** ➢ **Test for low blood sugar, and treat or prevent (p. 12)** ➢ **Encourage mother to continue breastfeeding or give EBM 3ml/kg** ➢ **Refer URGENTLY**
• One or more abnormal signs	**BIRTH ABNORMALITY**	➢ Keep warm, skin to skin (p. 12) ➢ Assess breastfeeding (p. 21) ➢ Address any feeding problems and support mother to breastfeed successfully (p. 20—21) ➢ Refer for assessment ➢ If not able to breastfeed, give EBM 3ml/kg per hour on the way
• Mother's RPR positive and she is > Untreated > Partially treated (fewer than three doses) > Treatment completed less than 1 month before delivery **OR** • Mother's RPR is not known, and it is not possible to get the result now	**POSSIBLE CONGENITAL SYPHILIS**	➢ Check for signs of congenital syphilis (these should have been detected when looking for priority signs) and if present refer to hospital ➢ If no signs of congenital syphilis, give intramuscular penicillin (p. 13). ➢ Ask about the caregiver's health, and treat as necessary (p. 11). ➢ Ensure that the mother receives full treatment for positive RPR.
• No risks nor abnormal signs	**NO BIRTH ABNORMALITIES**	➢ Counsel the caregiver on home care for the young infant (p. 15)

THEN CONSIDER RISK FACTORS IN ALL YOUNG INFANTS

LOOK AT THE CHILD'S ROAD TO HEALTH BOOKLET AND/OR ASK:

- Has the mother or a close contact had TB or been on TB treatment in the last 6 months?
- How much did the infant weigh at birth?
- Was the infant admitted to hospital after birth? If so, for how many days?
- Who is the child's caregiver?
- How old is the mother/caregiver?
- Is the infant exclusively breastfed?

Classify ALL young infants

• Mother is on TB treatment	**TB EXPOSED**	➢ Give INH for 6 months if mother has received TB treatment for more than 2 months before delivery (p. 39) ➢ If mother received treatment for less than 2 months before delivery, the baby should receive a full course of TB treatment (p. 40) ➢ Do an HIV PCR test at 6 weeks, or earlier if the child is sick (p. 8) ➢ Give BCG on completion of INH or TB treatment ➢ Ask about the caregiver's health, and treat as necessary (p. 11)
• Infant weighed less than 2 kg at birth **OR** • Admitted to hospital for more than three days after delivery **OR** • Known neurological or congenital problem	**AT RISK INFANT**	➢ Monitor growth and health more frequently ➢ Assess feeding and encourage breastfeeding (p. 9, 20 - 22) ➢ Conduct home visits to assess feeding and growth ➢ Encourage mother to attend follow-up appointments and refer to other services if indicated (further medical assessment, social worker, support group) ➢ Make sure that the birth has been registered and that the child is receiving a child support grant if indicated.
• Mother has died or is ill **OR** • Infant not breastfed **OR** • Teenage caregiver **OR** • Social deprivation	**POSSIBLE SOCIAL PROBLEM**	➢ Assess breastfeeding and support mother to breastfeed successfully (p. 20 - 22) ➢ If not breastfeeding, counsel and explain safe replacement feeding (p. 19, 23 - 24) ➢ Monitor growth and health more frequently ➢ Conduct home visits to assess feeding and growth ➢ Make sure that the birth has been registered and that the child is receiving a child support grant if indicated. ➢ Refer to other available services if indicated (social worker, community based organisations)
• No risk factors	**NO RISK FACTORS**	➢ Counsel the caregiver on home care for the young infant (p. 15)

THEN CONSIDER HIV INFECTION IN ALL YOUNG INFANTS

Has the child been tested for HIV infection?

IF YES, AND THE RESULT IS AVAILABLE, ASK:

- What was the result of the test?
- Was the child breastfeeding when the test was done, or had the child breastfed less than 6 weeks before the test was done?
- Is the child currently taking ARV prophylaxis?

HIV testing in infants 0 - 2 months:

- Use an HIV PCR test.
- If HIV PCR test positive, do second HIV PCR test to confirm status
- Some infants will have been tested at birth. If this was done, make sure that you obtain the infant's result.
- If the test was negative, re-test:
  - If the child is ill or has features of HIV infection
  - At 6 weeks of age
  - At 16 weeks - infants who received extended (12 weeks) nevirapine
  - 6 weeks after stopping breastfeeding

Below 18 months of age, use an HIV PCR test to determine the child's HIV status. Do not use an antibody test to determine HIV status in this age group. If HIV PCR positive, do a second HIV PCR test to confirm the child's status.

Classify for HIV status

• Infant has positive PCR test	**HIV INFECTION**	➢ Follow the six steps for initiation of ART (p. 53) ➢ Give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 9, 17—24) ➢ Ask about the caregiver's health, and ensure that she is receiving the necessary care and treatment. ➢ Provide long term follow-up (p. 59)
• Infant is receiving 6 or 12 weeks of infant ARV prophylaxis	**HIV EXPOSED: ON ARV PROPHYLAXIS**	➢ Complete appropriate ARV prophylaxis (p. 13) ➢ Give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 9, 17 - 24) ➢ Repeat PCR test according to testing schedule. Reclassify on the basis of the test result. ➢ Ask about the caregiver's health, and ensure that she is receiving the necessary care and treatment. ➢ Provide follow-up care (p. 51)
• Infant has completed ARV prophylaxis **AND** • Infant has negative PCR test. **AND** • Infant still breastfeeding or stopped breastfeeding less than 6 weeks before the PCR test was done	**ONGOING HIV EXPOSURE**	➢ If mother is HIV positive, give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 9, 17 - 24) ➢ Repeat PCR test according to testing schedule. Reclassify on the basis of the test result. ➢ Ask about the caregiver's health, and ensure that she is receiving the necessary care and treatment. ➢ Provide follow-up care (p. 51)
• Infant has a negative PCR test **AND** • Infant is not breastfeeding and was not breastfed for six weeks before the test was done	**HIV NEGATIVE**	➢ Stop cotrimoxazole prophylaxis ➢ Counsel the caregiver on home care for the young infant (p. 15)

IF NO TEST RESULT FOR CHILD, CLASSIFY ACCORDING TO MOTHER'S STATUS

ASK:

- Was the mother tested for HIV during pregnancy or since the child was born?
- If YES, was the test negative or positive?

Classify child according to Mother's HIV status

• Mother is HIV positive.	**HIV EXPOSED**	➢ If mother is HIV positive, give infant ARV prophylaxis (p. 13). ➢ Do a PCR test at 6 weeks, or earlier if the child is sick. Reclassify the child on the basis of the result. ➢ Give cotrimoxazole prophylaxis from age 6 weeks (p. 39) ➢ Assess feeding and provide counselling (p. 9, 17 - 24) ➢ Ask about the caregiver's health, and ensure that she is receiving the necessary care and treatment. ➢ Provide long term follow-up (p. 51)
• No HIV test done on mother **OR** • HIV test result not available.	**HIV UNKNOWN**	➢ Counsel caregiver on the importance of HIV testing, and offer HCT ➢ Reclassify on the basis of the child's or the mother's test
• Mother HIV negative	**HIV UNLIKELY**	➢ Counsel the caregiver on home care for the young infant (p. 15)

THEN CHECK FOR FEEDING AND GROWTH

If the infant is not being breastfed, use the alternative chart.

ASK:

- How is feeding going?
- How many times do you breastfeed in 24 hours?
- Does your baby get any other food or drink?
  - If yes, how often?
  - What do you use to feed your baby?

LOOK, LISTEN, FEEL:

- Plot the weight on the RTHB to determine the weight for age.
- Look at the shape of the curve. Is the child growing well?
- If the child is less than 10 days old:
  - Has the child lost more than expected body weight?
  - Has the child regained birth weight at 10 days?
- Is the child gaining sufficient weight?
- Look for ulcers or white patches in the mouth (thrush).

IF THE BABY:

- Has any difficulty feeding, or
- Is breastfeeding less than 8 times in 24 hours, or
- Is taking any other foods or drinks, or
- Is low weight for age, or
- Is not gaining weight

AND

- Has no indications to refer urgently to hospital:

THEN ASSESS BREASTFEEDING:

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

  not at all OR poor attachment OR good attachment
- Is the baby suckling well (that is, slow deep sucks, sometimes pausing)?

  not at all not suckling well suckling well
- Clear a blocked nose if it interferes with breastfeeding

NOTE:

- Young infants may lose up to 10% of their birth weight in the first few days after birth, but should regain their birth weight by ten days of age
- Thereafter minimum weight gain should be: Preterm: 10g/kg/day or Term: 20g/kg/day

Classify FEEDING in all young infants

• Not able to feed. or • No attachment at all. or • Not suckling at all.	**NOT ABLE TO FEED**	➢ **Treat as possible serious bacterial infection (p. 4)** ➢ **Give first dose of ceftriaxone IM (p. 13).** ➢ **Test for low blood sugar, and treat or prevent (p. 12)** ➢ **Refer URGENTLY to hospital—make sure that the baby is kept warm (p. 12)**
• Not well attached to breast. or • Not suckling effectively. or • Less than 8 breastfeeds in 24 hours. or • Infant is taking foods or drinks other than breast-milk or • Thrush	**FEEDING PROBLEM**	➢ Advise the mother to breastfeed as often and for as long as the infant wants, day and night ➢ If not well attached or not suckling effectively, teach correct positioning and attachment (p. 20 - 21) ➢ If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding ➢ If mother has a breastfeeding problem see advice for common breastfeeding problems (p. 20 - 21) ➢ If receiving other foods or drinks, counsel mother on exclusive breastfeeding, and the importance of stopping other foods or drinks. ➢ If thrush, treat and teach the mother to treat for thrush at home (p. 14) ➢ Follow-up in 2 days (p. 16)
• More than 10% weight loss in the first week of life. or • Weight less than birth weight at or after 2 week visit. or • Low weight for age. or • Weight gain is unsatisfactory. or • Weight loss following discharge of LBW infant	**POOR GROWTH**	➢ Advise the mother to breastfeed as often and for as long as the infant wants, day and night ➢ If less than 2 weeks old follow-up in 2 days (p. 16) ➢ If more than 2 weeks old follow-up in 7 days (p. 16)
• Not low weight for age and no other signs of inadequate feeding. • Less than 10% weight loss in the first week of life	**FEEDING AND GROWING WELL**	➢ Praise the mother for feeding the infant well ➢ Counsel the caregiver on home care for the young infant (p. 15)

THEN CHECK FOR FEEDING AND GROWTH (Alternative chart for non-Breastfed infants)

ASK:

- How is feeding going?
- 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 caregiver demonstrate or explain how a feed is prepared, and how it is given to the baby.
- Are you giving any breastmilk at all?
- What foods and fluids in addition to replacement milk is being given?
- How is the milk being given? Cup or bottle?
- How are you cleaning the utensils?

LOOK, LISTEN, FEEL:

- Plot the weight on the RTHB to determine the weight for age.
- Look at the shape of the curve. Is the child growing well?
- If the child is less than 10 days old:
  - Has the child lost more than expected body weight?
  - Has the child regained birth weight at 10 days?
  - Is the child gaining sufficient weight?
- Look for ulcers or white patches in the mouth (thrush).

NOTE:

- Young infants may lose up to 10% of their birth weight in the first few days after birth, but should regain their birthweight by ten days of age
- Thereafter minimum weight gain should be:

  Preterm: 10g/kg/day OR Term: 20g/kg/day

10% OF BIRTH WEIGHT = BIRTH WEIGHT divided by 10

Classify FEEDING and GROWTH in all young infants

• Not able to feed or • Not sucking at all	**NOT ABLE TO FEED**	➢ **Treat as possible serious bacterial infection (p. 4)** ➢ **Give first dose of ceftriaxone IM (p. 13). Test for low blood sugar, and treat or prevent (p. 12)** ➢ **Refer URGENTLY —make sure that the baby is kept warm**
• Milk incorrectly or unhygienically prepared. or • Giving inappropriate replacement milk or other foods/ fluids. or • Giving insufficient replacement feeds. or • Using a feeding bottle. or • Thrush	**FEEDING PROBLEM**	➢ Counsel about feeding and explain the guidelines for safe replacement feeding (p. 22 - 24) ➢ Identify concerns of caregiver and family about feeding ➢ If caregiver is using a bottle, teach cup feeding (p. 22) ➢ If thrush, treat and teach the caregiver to treat it at home (p. 14) ➢ Follow-up in 2 days (p. 16)
• More than 10% weight loss in the first week of life. or • Weight less than birth weight at or after 10 days of age. or • Weight gain is unsatisfactory. or • Weight loss following discharge of LBW infant.	**POOR GROWTH**	➢ Check for feeding problem (p. 20) ➢ Counsel about feeding (p. 22-24) ➢ If less than 2 weeks old follow-up in 2 days (p. 16) ➢ If more than 2 weeks old follow-up in 7 days (p. 16)
• Not low weight for age and no other signs of inadequate feeding. • Less than 10% weight loss in the first week of life	**FEEDING AND GROWING WELL**	➢ Counsel the caregiver on home care for the young infant emphasising the need for good hygiene (p. 15). ➢ Praise the caregiver

THEN CHECK THE YOUNG INFANT'S IMMUNISATION STATUS AND IMMUNISE IF NEEDED

IMMUNISATION SCHEDULE:

Birth	BCG	OPV0		
6 weeks	Hexavalent1 (DaPT-IPV-HB-Hib1)	OPV1	PCV1	RV1
10 weeks	Hexavalent2 (DaPT-IPV-HB-Hib2)			

- Give all missed doses on this visit
- Preterm infants should be immunised at six and ten weeks: do not delay their immunisations. If they received OPV0 less than four weeks before they reached six weeks of age, give all the other immunisations as usual (OPV1 can be given four weeks after OPV0 or with the ten week doses)
- Include sick babies and those without a RTHB
- If the child has no RTHB, issue a new one today
- Advise the caregiver when to return for the next immunisation
- Refer to the EPI Vaccinator's Manual for more information

ASSESS THE CAREGIVER'S HEALTH

- Check for maternal danger signs and refer urgently if present
- Check that mother has received post-natal care according to Maternity Guidelines
- Check for anaemia and breast problems
- Ask mother about contraceptive usage, and counsel/manage
- Check HIV status and assess for ART if eligible
- Screen for TB and manage appropriately
- Check RPR results and complete treatment if positive.
- Ask about any other problems

MATERNAL DANGER SIGNS

- Excessive vaginal bleeding
- Foul smelling vaginal discharge
- Severe abdominal pain
- Fever
- Excessive tiredness or breathlessness
- Swelling of the hands and face
- Severe headache or blurred vision
- Convulsion or impaired consciousness

ASSESS AND MANAGE OTHER PROBLEMS

TREAT THE YOUNG INFANT

- **Explain to the caregiver why the treatment is being given**

Prevent Low Blood Sugar in Young Infant (hypoglycaemia)

- **If the child is able to swallow:**
  - If breastfed: ask the mother to breastfeed the child
  - If the baby is too sick to feed, give 3ml/kg per hour of expressed breastmilk on the way to hospital
  - If baby has severe lethargy and cannot swallow, give the milk by nasogastrc tube
- **If feeding is contraindicated:**
  - Put up intravenous (IV) line and give 10% glucose by slow IV infusion at 3ml/kg/hour (3 drops per kg/hour)
  - Use a dial-a flow to monitor the flow rate

  Example: If the baby weighs 4 kg then give 12 ml/hour

Treat for low blood sugar (hypoglycaemia)

- Suspect low blood sugar in any infant or child that:
  - is convulsing, unconscious or lethargic; OR
  - has a temperature below 35ºC.
- Confirm low blood sugar using blood glucose testing strips.
- Keep the baby warm at all times.

Low blood sugar 1.4 to less than < 2.5 mmol/L in a young infant

- Breastfeed or feed expressed breastmilk.
- If breastfeeding is not possible give 10mg/kg of replacement milk feed
- Repeat the blood glucose in 15 minutes while awaiting transport to hospital
- If the blood sugar remains low, treat for severe hypoglycaemia (see below)
- If the blood glucose is normal, give milk feeds and check the blood glucose 2-3 hourly

Low blood sugar < 1.4 mmol/L in a young infant

- Give a bolus of 10% dextrose infusion (Neonatalyte) at 2ml/kg
- Then continue with the 10% dextrose infusion at 3ml/kg/hour
- Repeat the blood glucose in 15 minutes.
- If still low repeat the bolus of 2ml/kg and continue IV infusion
- Refer URGENTLY and continue feeds during transfer.

Give Oxygen

- Give oxygen to all young infants with:
  - Convulsions
  - Apnoea or breathing < 30 minute
  - Fast breathing, severe chest indrawing, nasal flaring or grunting
- Use nasal prongs or a nasal cannula.

Nasal prongs

- Place the prongs just below the baby's nostrils. Use 1mm prongs for small babies and 2mm prongs for term babies
- Secure the prongs with tape
- Oxygen should flow at one litre per minute

Nasal cannula

- This method delivers a higher concentration of oxygen
- Insert a FG5 or FG6 nasogastric tube 2 cm into the nostril.
- Secure with tape
- Turn on oxygen to flow of half a litre per minute

Keep the infant or child warm

Use Skin to skin to keep the baby warm, unless the mother is too ill, or if the baby is too ill and requires observation. (If this is the case, then nurse the infant in a transport incubator or wrap in blankets.)

Skin-to-Skin

- Dress the baby with a cap, booties and nappy
- Place the baby skin to skin between the mother's breasts
- Cover the baby
- Secure the baby to the mother
- Cover both mother and baby with a blanket or jacket if the room is cold

TREAT THE YOUNG INFANT

- **Explain to the caregiver why the treatment is being given**

Treat for POSSIBLE SERIOUS BACTERIAL INFECTION with Intramuscular Ceftriaxone

- Give first dose of ceftriaxone IM.
- The dose of ceftriaxone is 50 mg per kilogram.
- Dilute a 250 mg vial with 1 ml of sterile water.
- Also give one dose of ceftriaxone if the infant has LOCAL BACTERIAL INFECTION with a purulent discharge of eyes.

CEFTRIAXONE INJECTION Give a single dose in the clinic	
WEIGHT	**CEFTRIAXONE** 250 mg in 1 ml
2 - < 3 kg	0.5 ml
3 - 6 kg	1 ml

Treat Skin pustules or red umbilicus with Cephalexin or Flucloxacillin

- Give cephalexin OR flucloxicillin for 7 days
- If child has penicillin allergy, refer.

CEPHALEXIN OR FLUCLOXICILLIN Give four times a day for seven days		
WEIGHT	**Cephalexin syrup** 125 mg in 5 ml	**Flucloxacillin syrup** 125 mg in 5 ml
Up to 5 kg	2.5 ml	2.5 ml
≥ 5kg	5 ml	5 ml

Give Intramuscular Penicillin for POSSIBLE CONGENITAL SYPHILIS

Give once only

- Give Benzathine Benzylpenicillin IM (injection) 50 000 units / kg into the lateral thigh.
- **Dilute 1.2 million units with 4 ml of sterile water to give in the clinic.**
- Refer all babies if the mother is RPR positive and the baby presents with Low birth Weight **OR** Blisters on hands and feet **OR** Pallor OR petechiae **OR** hepatosplenomegaly **OR** if you are unsure

WEIGHT	**BENZATHINE BENZYLPENICILLIN INJECTION** 300 000 units in 1 ml
2.5 - < 3.5 kg	0.5 ml
3.5 - < 5 kg	0.75ml
> 5 kg	1 ml

Give ARV prophylaxis: Nevirapine

Give once daily

- All HIV-exposed infants should be given daily Nevirapine for at least six weeks.
- If the mother started ART less than four weeks before delivery or at delivery, give nevirapine for an additional 6 weeks i.e. 12 weeks in total (this should only be given if the infant is breastfed)
- If the mother's last viral load (taken after she had been on treatment for at least 3 months) was > 1 000 per mL, the infant should receive nevirapine **and** zidovudine for six weeks (see below).
- If the mother is only found to be HIV positive > 72 hours after delivery, and she is breastfeeding the infant, start nevirapine **and** zidovudine. Also discuss with an expert or refer to the PMTCT guidelines.
- Remember that if at any stage, the infant's PCR test is positive, stop nevirapine and initiate ART according to the Six Steps on p. 53
- If the child is underweight for age (WA z-score< -3) give nevirapine according to weight i.e. 4mg/kg/dose daily

AGE		**NEVIRAPINE SOLUTION (**10mg/ml) Once daily
Birth to 6 weeks	Birth weight less than 2.5 kg	1 ml
	Birth weight 2.5 kg or more	1.5 ml
6 weeks up to 6 months		2 ml
6 months up to 9 months		3 ml
≥ 9 months until breastfeeding stops		4 ml

Give ARV prophylaxis: Zidovudine (AZT)

Give twice daily

- If the mother 's last viral load (taken after she had been on treatment for at least 3 months) was > 1 000 per mL, the infant should receive zidovudine (as well as nevirapine) for six weeks.
- If a mother is found to be HIV positive > 72 hours after delivery, and she is still breastfeeding her infant, start nevirapine **and** zidovudine. Also discuss with an expert or refer to the PMTCT guidelines.

WEIGHT	**ZIDOVUDINE SOLUTION (**10mg/ml) Twice daily
Less than 2.5 kg	1 ml
2.5 kg or more	1.5 ml

TREAT THE YOUNG INFANT

Treat for Diarrhoea (p. 43- 44)

- If there is DIARRHOEA WITH SEVERE DEHYDRATION or DIARRHOEA WITH SOME DEHYDRATION (p.43 – 44)
- Explain how the treatment is given
- If there is SEVERE DEHYDRATION commence intravenous rehydration, give the first dose of ceftriaxone IM (p. 13) and REFER URGENTLY.

Teach the Caregiver to treat Local Infections at home

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

Treat for Thrush with Nystatin

If there are thick plaques the caregiver should:

- Wash her hands with soap and water.
- Wet a clean soft cloth with chlorhexidine 0.2% or salt water, wrap this around the little finger, then gently wipe away the plaques.
- Wash hands again.

For all infants with thrush

- Give nystatin 1 ml after feeds for 7 days.
- If breastfed, check mother's breasts for thrush. If present treat mother's breasts with nystatin.
- Advise mother to wash nipples and areolae after feeds.
- If bottle fed, change to cup and make sure that caregiver knows how to clean utensils used to prepare and administer the milk (p. 22 - 24).

Treat for purulent or sticky discharge of eyes

The caregiver should:

- Wash hands with soap and water
- Gently wash off discharge and clean the eye with saline or cooled boiled water at least 4 times a day. Continue until the discharge disappears.
- Apply chloramphenicol ointment 4 times a day for seven days.
- Wash hands again after washing the eye.

Treat for Skin Pustules or Umbilical Infection

The caregiver should:

- Wash hands with soap and water.
- Gently wash off pus and crusts with soap and water.
- Dry the area.
- Apply povidone iodine cream (5%) or ointment (10%) three times daily.
- Wash hands again.
- Give cephalexin or flucloxacillin (p. 13) for 7 days.

COUNSEL THE MOTHER OR CAREGIVER ON HOME CARE FOR THE YOUNG INFANT

1. FLUIDS AND FEEDING

- Ensure good communication with the mother to promote early and exclusive breastfeeding (p. 17 - 21)
- Counsel the mother to breastfeed frequently, as often and for as long as the infant wants, day or night, during sickness and health (p. 17 - 21)

2. MAKE SURE THAT THE YOUNG INFANT IS KEPT WARM AT ALL TIMES

Encourage mother to keep infant warm using skin-top-skin contact (p. 12)
In cool weather, cover the infant's head and feet and dress the infant with extra clothing.

3. MAINTAIN A HYGIENIC ENVIRONMENT

Advise the caregiver to wash her hands with soap and water after going to the toilet, changing the infant's nappy and before each feed.

4. **SUPPORT THE FAMILY TO CARE FOR THE INFANT**

Help the mother, family and caregiver to ensure the young infant's needs are met.
Assess any needs of the family and provide or refer for management.

4. WHEN TO RETURN

Follow-up Visits

If the infant has:	Follow-up in:
JAUNDICE LOCAL BACTERIAL INFECTION: Purulent discharge of eye	1 day
LOCAL BACTERIAL INFECTION THRUSH SOME DEHYDRATION FEEDING PROBLEM POOR GROWTH AND INFANT LESS THAN 2 WEEKS	2 days
POOR GROWTH and infant more than two weeks	7 days
HIV INFECTION ONGOING HIV EXPOSURE HIV EXPOSED TB EXPOSED	At least once a month
AT RISK INFANT POSSIBLE SOCIAL PROBLEM	As needed

When to Return Immediately:

Advise caregiver to return immediately if the young infant has any of these signs:

- Breastfeeding poorly or drinking poorly.
- Irritable or lethargic.
- Vomits everything.
- Convulsions.
- Fast breathing.
- Difficult breathing.
- Blood in stool.

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

If there is a new problem, assess, classify and treat the new problem using the ASSESS AND CLASSIFY charts (p. 4 - 11).

LOCAL BACTERIAL INFECTION

After 1 or 2 days:

- Discharge of eyes: has the discharge improved? Are the lids swollen?
- Red umbilicus: Is it red or draining pus? Does redness extend to the skin?
- Skin pustules: Are there many or severe pustules?

Treatment:

- If condition remains the same or is worse, **refer.**
- If condition is improved, tell the caregiver to continue giving the antibiotic and continue treating for the local infection at home (p. 14).

FEEDING PROBLEM

After 2 days:

- Ask about any feeding problems found on the initial visit and reassess feeding (p. 9 or 10).
- Counsel the caregiver about any new or continuing feeding problems. If you counsel the caregiver to make significant changes in feeding, ask her to bring the young infant back again after 5 days.
- If the young infant has POOR GROWTH (low weight for age or has poor weight gain), ask the caregiver to return again after 5 days to measure the young infant's weight gain. Continue follow-up until the weight gain is satisfactory.
- If the young infant has lost weight, **refer.**

EXCEPTION: If the young infant has lost weight or you do not think that feeding will improve, **refer**

JAUNDICE

After 1 day:

- Look for jaundice (yellow eyes or skin)
- Look at the young infant's palms and soles. Are they yellow?
- Reassess feeding
- If palms and soles yellow, **refer**
- If palms and soles not yellow and infant feeding well, counsel mother to continue breastfeeding and to provide home care.
- If you are concerned about the jaundice, ask the mother to return after one or two days or if the jaundice becomes worse.

POOR GROWTH

After 2 days in infant less than 2 weeks or 7 days in infant more than 2 weeks:

- Reassess feeding (p. 9 or 10).
- Check for possible serious bacterial infection and treat if present (p. 4).
- Weigh the young infant. Determine weight gain.
- If the infant is no longer low weight for age, praise the caregiver and encourage her to continue.
- If the infant is still low weight for age, but is gaining weight, praise the caregiver. Ask her to have her infant weighed again within 14 days or when she returns for immunisation, whichever is the earlier.

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

THRUSH

After 2 days:

- Look for thrush in the mouth.
- Reassess feeding. (p. 9 or 10).

Treatment:

- If thrush is worse check that treatment is being given correctly, and that the mother has been treated for thrush, if she is breastfeeding. Also consider HIV INFECTION (p. 8).
- If the infant has problems with attachment or feeding, **refer.**
- If thrush is the same or better, and the baby is feeding well, continue with nystatin for a total of 7 days.

COUNSEL THE MOTHER OR CAREGIVER ON INFANT AND YOUNG CHILD FEEDING

Communication Skills

- Be respectful and understanding
- Listen to the family's concerns and encourage them to ask questions and express their emotions
- Use simple and clear language
- Ensure that the family understands any instructions and give them written information
- If a baby needs to be referred, explain the reason for the referral and how the baby will be referred.
- Respect the family's right to privacy and confidentiality
- Respect the family's cultural beliefs and customs, and accommodate the family's needs as much as possible
- Remember that health care providers may feel anger, guilt, sorrow, pain and frustration
- Obtain informed consent before doing any procedures

Listening and Learning skills

- Use helpful non-verbal behaviour.
- Ask open-ended questions.
- Use responses and gestures that show interest.
- Reflect back what the caregiver says.
- Avoid judging words.

Confidence Building skills

- Accept what the caregiver says, how she thinks and feels.
- Recognise and praise what the caregiver is doing right.
- Give practical help.
- Give relevant information according to the caregiver's needs and check her understanding.
- Use simple language .
- Make suggestions rather than giving commands.
- Reach an agreement with the caregiver about the way forward.

FEEDING RECOMMENDATIONS

Up to six months

All mothers should be counselled and supported to exclusively breastfeed their infants for the first six months

- Immediately after birth, put your baby in skin to skin contact with you.
- Breastfeed as often as the child wants, day and night.
- Feed young infants at least 8 times in 24 hours.
- Do not give other foods or fluids, not even water.
- Wake the baby for feeding after 3 hours, if the baby has not woken by her/himself.

6 months up to 12 months

- Continue to breastfeed as often as the child wants.
- If the baby is not breastfed, give formula. If the baby gets no milk, give 5 nutritionally adequate complementary feeds per day.
- Start giving foods rich in iron and then soft porridge and mashed vegetables and fruit.
- Start with 1 to 2 teaspoons twice a day and gradually increase the amount and frequency of feeds.
- Children between 6-8 months should have two meals a day, by 12 months this should have increased to 5 meals per day.
- Give a variety of locally available food. Examples include egg (yolk), beans, dhal, meat, fish, chicken / chicken livers, mopani worms.
- For children who are not growing well, mix margarine or oil with porridge.
- Fruit juices, tea and sugary drinks should be avoided before 9 months of age.

12 months up to two years

- Continue to breastfeed as often as the child wants.
- If no longer breastfeeding, give 2 to 3 cups of full cream milk every day.
- Give at least 5 adequate nutritious family meals per day.
- Give locally available food rich in protein at least once a day. Examples include egg, beans, dhal, meat, fish, chicken / chicken livers, mopani worms.
- Give fresh fruit or vegetables twice every day.
- Give foods rich in iron, and vitamins A and C (see examples below).
- Feed actively from the child's own bowl.
- Also give the child clean water to drink during the day (boil and cool the water if there is any doubt about the safety/cleanliness of the water).

Above 2 years

- Give the child his/her own serving of family foods 3 times a day.
- In addition, give 2 nutritious snacks such as bread with peanut butter, full cream milk or fresh fruit between meals.
- Continue active feeding.
- Ensure that the child receives foods rich in iron and Vitamins A and C.

IRON RICH FOODS

- Meat (especially kidney, spleen, chicken livers), dark green leafy vegetables, legumes (dried beans, peas and lentils).
- Iron is absorbed best in the presence of vitamin C.
- Tea, coffee and whole grain cereal interfere with iron absorption.

VITAMIN A RICH FOODS

- Vegetable oil, liver, mango, pawpaw, yellow sweet potato, Full Cream Milk, dark green leafy vegetables e.g. spinach / imfino / morogo.

VITAMIN C RICH FOODS

- Citrus fruits (oranges, naartjies), melons, tomatoes.

COW'S MILK

- Cow's or other animal milks are not suitable for infants below 6 months of age (even modified).
- For a child between 6 and 12 month of age: boil the milk and let it cool (even if pasteurized).
- Feed the baby using a cup (p. 22).

Encourage feeding during illness

Recommend that the child be given an extra meal a day for a week once better.

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

FEEDING ASSESSMENT

Assess the Child's Feeding if the child is:

Ø **classified as having:**
- ACUTE SEVERE MALNUTRITION WITHOUT MEDICAL COMPLICATIONS
- MODERATE SEVERE MALNUTRITION
- NOT GROWING WELL
- ANAEMIA

- **under 2 years of age**

Ask questions about the child's usual feeding and feeding during this illness. Compare the mother/caregiver's answers to the **Feeding Recommendations** for the child's age (p. 18).

ASK:

- How are you feeding your child?
- Are you breastfeeding?
  - How many times during the day?
  - Do you also breastfeed at night?

- Are you giving any other milk?
  - What type of milk is it?
  - What do you use to give the milk?
  - How many times in 24 hours?
  - How much milk each time?
  - How is the milk prepared?
  - How are you cleaning the utensils?

- What other food or fluids are you giving the child?
  - How often do you feed him/her?
  - What do you use to give other fluids?

- How has the feeding changed during this illness?
-
- If the child is not growing well, ASK:
  - How large are the servings?
  - Does the child receive his/her own serving?
  - Who feeds the child and how?

Assess conditions for replacement feeding

The following specific conditions should be met:

- The mother or caregiver can reliably provide sufficient infant formula milk to support normal growth and development of the infant.
- Safe water and sanitation are assured at the household level and in the community.
- The mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition.
- The mother or caregiver can, in the first six months, exclusively give infant formula milk
- The family is supportive of this practice
- The mother or caregiver can access health care that offers comprehensive child health services.

How to do the appetite test? (child must be 6 months old or above)

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

The result of the appetite test

Pass:
A child who takes at least the amount shown in the table passes the appetite test.

Fail:
A child who does not take at least the amount of RUTF shown in the table should be referred for inpatient care.
If the appetite is good during the appetite test and the rate of weight gain at home is poor then a home visit should be arranged
The MINIMUM amount of RUTF sachets that should be taken is shown in the table

WEIGHT	SACHETS (APPROX 90G)
4 - < 7 kg	¼ to ⅓
7 - < 10 kg	⅓ to ½
10 - < 15 kg	½ to ¾
15 - < 30 kg	¾ to 1
>30kg	> 1

Counsel the Caregiver About Feeding Problems

If the child is not being fed according to the Feeding Recommendations (p. 18) counsel the caregiver accordingly. In addition:

If mother reports difficulty with breastfeeding, assess breastfeeding (p. 9 or 21):

- Identify the reason for the mother's concern and manage any breast condition.
- If needed, show recommended positioning and attachment (p. 21).
- Build the mother's confidence.
- Advise her that frequent feeds improve lactation.

If the child is less than 6 months old, and:

- **the child is taking foods or fluids other than breastmilk:**
  - Build mother's confidence that she can produce all the breastmilk that the child needs. Water and other milk are not necessary.
  - If she has stopped breastfeeding, refer her to a breastfeeding counsellor to help with re-lactation.
  - Suggest giving more frequent, longer breastfeeds, day or night, and gradually reducing other milk or foods.

- **the mother or infant are not able to breastfeed due to medical reasons, counsel the mother to:**
  - Make sure she uses an appropriate infant formula
  - Prepare formula correctly and hygienically, and give adequate amounts (p. 23 - 24).
  - Discard any feed that remains after two hours.

If the caregiver is using a bottle to feed the child

- Recommend a cup instead of a bottle. Show the caregiver how to feed the child with a cup (p. 22).

If the child is not being fed actively, counsel the caregiver to:

- Sit with the child and encourage eating.
- Give the child an adequate serving in a separate plate or bowl.

If the child has a poor appetite, or is not feeding well during this illness, counsel the caregiver to:

- Breastfeed more frequently and for longer if possible.
- Use soft, varied, favourite foods to encourage the child to eat as much as possible.
- Give foods of a suitable consistency, not too thick or dry.
- Avoid buying sweets, chips and other snacks that replace healthy food.
- Offer small, frequent feeds. Try when the child is alert and happy, and give more food if he/she shows interest.
- Clear a blocked nose if it interferes with feeding.
- Offer soft foods that don't burn the mouth, if the child has mouth ulcers / sores e.g. eggs, mashed potatoes, sweet potatoes, pumpkin or avocado.
- Ensure that the spoon is the right size, food is within reach, child is actively fed, e.g. sits on caregiver's lap while eating.
- Expect the appetite to improve as the child gets better.

If there is no food available in the house:

- Help caregiver to get a Child Support Grant for any of her children who are eligible.
- Put her in touch with a Social Worker and local organisations that may assist.
- Encourage the caregiver to have or participate in a vegetable garden.
- Supply milk and enriched (energy dense) porridge from the Food Supplementation programme.
- Give caregiver appropriate local recipes for enriched (energy dense) porridge.

SUPPORT MOTHERS TO BREASTFEED SUCCESSFULLY

Breastfeeding Assessment (p. 9 and 21)

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

  not at all *poor attachment* *good attachment*
- Is the baby suckling well (that is, slow deep sucks, sometimes pausing)?

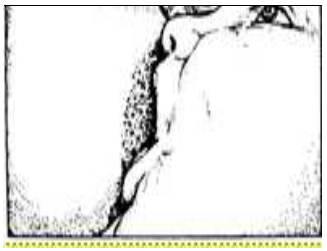
  not at all *not suckling well* *suckling well*
- Clear a blocked nose if it interferes with breastfeeding

Teach Correct Positioning and Attachment

- Seat the mother comfortably
- Show the mother how to hold her infant:
  - with the infant's head and body straight
  - facing her breast, with infant's nose opposite her nipple
  - with infant's body close to her body
  - supporting infant's whole body, not just neck and shoulders.
- Show her how to help the infant 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.
- Most of the common breastfeeding problems expressed by mother are related to poor positioning and attachment.

Signs of good attachment

- More areola visible above than below baby's mouth
- Mouth wide open
- Lower lip turned outwards
- Chin touching breast
- Slow, deep sucks and swallowing sounds



Signs of poor attachment

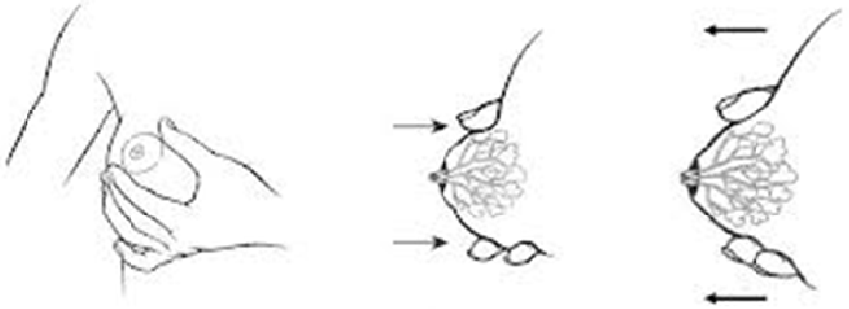
- Baby sucking on the nipple, not the areola
- Rapid shallow sucks
- Smacking or clicking sounds
- Cheeks drawn in
- Chin not touching breast

Tips to help a mother breastfeed her baby

- Express a few drops of milk on the baby's lip to help the baby start breastfeeding.
- For low birth weight baby give short rests during a breastfeed;
- If the baby coughs, gags, or spits up when starting to breastfeed, the milk may be letting down too fast for the baby. Teach the mother to take the baby off the breast if this happens.
- Hold the baby against her chest until the baby can breathe well again then put it back to the breast after the let-down of milk has passed.
- If the mother will be away from the baby for some time, teach the mother to express breastmilk (p. 22).
- Make sure that the person who will feed the baby has been taught to cupfeed correctly (p. 22).

Support on expressing breastmilk and cupfeeding

Expressing breastmilk



- Wash hands with soap and water
- Make sure mother is sitting comfortably – a little forward
- Show her how to cup the breast just behind her areola
- Squeeze the breast gently, using thumb and the rest of fingers in a C shape. This shouldn't hurt (don't squeeze the nipple directly as you'll make it sore and difficult to express).
- Release the pressure then repeat, building up a rhythm. Try not to slide the fingers over the skin. At first, only drops will appear, but if she keeps going this will help build up her milk supply. With practice and a little time, milk may flow freely.
- When no more drops come out, let her move her fingers round and try a different section of the breast.
- When the flow slows down, swap to the other breast. Keep changing breasts until the milk drips very slowly or stops altogether.
- If the milk doesn't flow, let her try moving her fingers slightly towards the nipple or further away, or give the breast a gentle massage.
- Hold a clean (boiled) cup or container below the breast to catch the milk as it flows.

Storing and using expressed breastmilk

- Fresh breastmilk has the highest quality.
- If breastmilk must be stored, advise the mother and family to:
  - Use either a glass or hard plastic container with a large opening and a tight lid to store the breastmilk.
  - Boil the container and lid for 10 minutes before use.
  - If the mother is literate, teach her to write the time and date the milk was expressed (or morning, afternoon, evening) on the container before storing.
  - Store the milk in a refrigerator for 24 hours or in a cool place for 8 hours.
- Make sure that the person who will feed the baby has been taught to cupfeed correctly (see next box).

Cup feeding (for giving expressed breastmilk or replacement feeds)

- Hold the baby sitting upright or semi-upright on your lap
- Hold a small cup of milk to the baby's mouth.
- Tip the cup so that the milk just reaches the baby's lips.
- The cup rests lightly on the baby's lower lip and the edge of the cup touches the outer part of the baby's upper lip. The baby will become alert
- Do not pour milk into the baby's mouth.
- A low birth weight baby starts to take milk with the tongue.
- A bigger / older baby sucks the milk, spilling some of it
- When finished the baby closes the mouth and will not take any more.
- If the baby has not had the required amount, wait and then offer the cup again, or offer more frequent feeds.

How much expressed breastmilk does an infant need?

- Exclusively breastfed infants take in an average of 750 ml per day between the ages of 1 month and 6 months.

COUNSEL THE CAREGIVER ABOUT GIVING REPLACEMENT FEEDS

Benefits of breastfeeding

- Breastfeeding is the perfect food for the baby. It contains many antibodies and substances that fight infection, mature the gut and body, and promote optimal growth, development and health for the baby
- The risk of not breastfeeding is a much higher chance of the baby becoming ill with, or even dying from, diarrhoea, pneumonia or malnutrition.
- If the mother is HIV positive, with ART prophylaxis the risk of HIV transmission is much less than in the past.

Requirements for safe replacement feeding

- The mother or caregiver must purchase all the formula herself, and be prepared to do this for 12 months.
- Disclosure of her HIV status to relevant family will make it easier as she must give formula only and no breast milk
- She must safely prepare milk before EACH of 6 – 8 feeds a day
- Running water in the house and electricity and a kettle are advisable for safe preparation of 6 – 8 feeds a day.
- She must be able to clean and sterilise the equipment after each feed
- She should use a cup to feed the baby as it is safer than a bottle (p. 22)

Replacement feeds

- Ensure that the mother understands the benefits of breastfeeding and risks of not breastfeeding
- If the mother (or caregiver) nevertheless chooses not to breastfeed, ensure that she understands the requirements for safe replacement feeding and knows how to prepare replacements feeds safely.
- Infants who are on replacement feeds should receive no other foods or drinks until six months of age
- Young infants require to be fed at least 8 times in 24 hours.
- Prepare correct strength and amount of replacement feeds before use. (p. 24).
- Cup feeding is safer than bottle feeding. Use a cup which can be kept clean i.e. not one with a spout (p. 22)
- Pasteurised full cream milk may be introduced to the non-breastfed infant's diet from 12 months of age.
- Where infant formula is not available, children over six months may temporarily receive undiluted pasteurised full cream milk (boiled), provided that iron supplements or iron-fortified foods are consumed and the amount of fluid in the overall diet is adequate.

Safe Preparation of Replacement feeds

- Wash your hands with soap and water before preparing a feed.
- Boil the water. If you are boiling the water in a pot, it must boil for three minutes. Put the pot's lid on while the water cools down. If using an automatic kettle, lift the lid of the kettle and let it boil for three minutes.
- The water must still be hot when you mix the feed to kill germs that might be in the powder.
- Carefully pour the amount of water that will be needed in the marked cup. Check if the water level is correct before adding the powder. Measure the powder according to the instructions on the tin using the scoop provided. Only use the scoop that was supplied with the formula.
- Mix by stirring with a clean spoon.
- Cool the feed to body temperature under a running tap or in a container with cold water. Pour the mixed formula into a cup to feed the baby.
- Only make enough formula for one feed at a time.
- Feed the baby using a cup (p. 22) and discard any leftover milk within two hours.

<u>Cleaning of equipment used for preparation and giving of feeds</u>.

- If the infant is being cupfed:
  - Wash all containers and utensils used for feeding and preparation thoroughly in hot soapy water. Make sure that all remaining feed is removed. Rinse with clean water, allow to dry or dry with a clean cloth and store in a clean place.
  - If possible, all containers and utensils should be sterilized once a day as described below.
- If the caregiver is using bottles to feed the infant:
  - Wash all containers and utensils used for feeding and preparation thoroughly in hot soapy water. Make sure that all remaining feed is removed using a bottle brush. Rinse with clean water.
  - The bottles and other equipment must be sterilised after each use as described below.
- Sterilization should be done as follows:
  - fill a large pot with water and completely submerge all washed feeding and preparation equipment, ensuring there are no trapped air bubbles
  - cover the pot with a lid and bring to a rolling boil, making sure the pot does not boil dry
  - keep the pot covered until the feeding and preparation equipment is needed.

COUNSEL THE CAREGIVER

Correct volumes and frequency of feeds

Age	Weight	Approximate amount of Feed needed in 24 hours	Approximate no. of feeds per day.
Birth	3 kg	400ml	8 X 50ml
2 weeks	3 kg	400ml	8 X 50ml
6 weeks	4 kg	600ml	7 X 75ml
10 weeks	5 kg	750ml	6 X 125ml
14 weeks	6.5 kg	900ml	6 X 150ml
4 months	7 kg	1050ml	6 X 175 ml
5 months	7 kg	1050ml	6 X 175 ml
6 months	8 kg	1200ml	6 X 200ml
7 to 12 months	8 - 9 kg	1000ml	4 x 250 ml

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NOTE: For formula feeding preparations, advise the care-giver to always use the correct amount of water and formula according to the product instructions

Counsel the caregiver about using RUTF
(child must be 6 months old or above)

- RUTF is for malnourished children only. It should not be shared.
- Do not give other food than RUTF except breast milk. If still breastfeeding, give more frequent, longer breastfeeds, day and night. Always give breast milk on demand and before RUTF
- Offer plenty of clean water to drink with RUTF
- Sick children often do not like to eat. Give small regular meals of RUTF and encourage the child to eat often, every 3-4 hours (up to 8 meals per day)
- RUTF is the only food these children need to recover.
- Wash the child's hands and face with soap and water before feeding.
- Keep food clean and covered.
- Feed the child RUTF until cured (p. 42)

ASSESS AND CLASSIFY THE SICK CHILD
AGE 2 MONTHS UP TO 5 YEARS

- Do a rapid appraisal of all waiting children.
- Greet the caregiver
- ASK THE CAREGIVER 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 pages 48 - 52
- If initial visit, assess the child as follows:

ASSESS **CLASSIFY AS:** **TREATMENT** **(Urgent pre-referral treatments are in bold)**

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 this illness?

LOOK:
- Is the child lethargic or unconscious?
- Is the child convulsing now?

Classify ALL CHILDREN

• **Any general danger sign**	**VERY SEVERE DISEASE**	➢ **If child is unconscious or lethargic, give oxygen (p. 37)** ➢ **Give diazepam if convulsing now (p. 36)** ➢ **Test for low blood sugar, then treat or prevent (p. 36)** ➢ **Give any pre-referral treatment immediately** ➢ **Quickly complete the assessment** ➢ **Keep the child warm** ➢ **Refer URGENTLY**

A CHILD WITH ANY GENERAL DANGER SIGN NEEDS URGENT ATTENTION AND REFERRAL:
QUICKLY COMPLETE THE ASSESSMENT, GIVE PRE-REFERRAL TREATMENT IMMEDIATELY AND REFER AS SOON AS POSSIBLE

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 or wheeze.
- If the pulse oximeter is available then determine oxygen saturation

CHILD MUST BE CALM

Classify COUGH or DIFFICULT BREATHING

• Any general danger sign **OR** • Chest indrawing **OR** • Stridor in calm child **OR** • Oxygen saturation less than 90% in room air	**SEVERE PNEUMONIA OR VERY SEVERE DISEASE**	➢ **Give oxygen (p. 37)** ➢ **If wheezing, give salbutamol by inhaler or nebuliser (p. 37) Reassess after 15 minutes, and reclassify for COUGH OR DIFFICULT BREATHING.** ➢ **If stridor: give nebulised adrenaline and prednisone (p. 37)** ➢ **Give first dose of ceftriaxone IM (p. 36)** ➢ **Give first dose cotrimoxazole (p. 39)** ➢ **Test for low blood sugar, then treat or prevent (p. 36)** ➢ **Keep child warm (p.12), and refer URGENTLY**
• Fast breathing	**PNEUMONIA**	➢ If wheezing, give salbutamol by inhaler or nebuliser (p. 37) Reassess after 15 minutes, and reclassify for COUGH OR DIFFICULT BREATHING. ➢ Give amoxicillin for 5 days (p. 38) ➢ If coughing for more than 14 days, assess for TB (p. 34) ➢ Soothe the throat and relieve the cough (p. 45) ➢ Advise caregiver when to return immediately (p. 46) ➢ Follow-up in 2 days (p. 48)
• No signs of pneumonia or very severe disease	**COUGH OR COLD**	➢ If coughing for more than 14 days, assess for TB (p. 34) ➢ Soothe the throat and relieve cough (p. 45) ➢ Advise caregiver when to return immediately (p. 46) ➢ Follow up in 5 days if not improving (p. 48)

AND IF WHEEZE, ASK:

- Has the child had a wheeze before this illness?
- Does the child frequently cough at night?
- Has the child had a wheeze for more than 7 days?
- Is the child on treatment for asthma at present?

AND if WHEEZE Classify

• Yes to any question	**RECURRENT WHEEZE**	➢ **Give salbutamol and prednisone if referring for a severe classification (p. 37)** ➢ Give salbutamol via spacer for 5 days (p. 41) ➢ Refer non-urgently for assessment
• All other children with wheeze	**WHEEZE (FIRST EPISODE)**	➢ **Give salbutamol if referring for a severe classification (p. 37)** ➢ Give salbutamol via spacer for 5 days (p. 41) ➢ Follow-up in 5 days if still wheezing (p. 48)

FAST BREATHING

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

Does the child have diarrhoea?

IF YES, ASK:

- For how long?
- Is there blood in the stool?
- How much and what fluid is caregiver giving?

LOOK OR 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:
  - slowly?
  - or very slowly? (more than 2 seconds).

Classify DIARRHOEA

for DEHYDRATION in all children with diarrhoea

Two of the following signs: • Lethargic or unconscious. • Sunken eyes. • Not able to drink or drinking poorly. • Skin pinch goes back very slowly.	**SEVERE DEHYDRATION**	➢ **Start treatment for severe dehydration (Plan C, p. 44)** ➢ **Refer URGENTLY** ➢ **Prevent and treat low blood glucose (p. 36)** ➢ **Give frequent sips of ORS on the way** ➢ **Advise the caregiver to continue breastfeeding when possible**
Two of the following signs: • Restless, irritable. • Sunken eyes. • Drinks eagerly, thirsty. • Skin pinch goes back slowly.	**SOME DEHYDRATION**	➢ Give fluids to treat for some dehydration (Plan B, p. 43) ➢ Advise caregiver to continue breastfeeding and feeding ➢ Give zinc for 2 weeks (p. 42) ➢ Follow-up in 2 days (p. 48) ➢ Advise the caregiver when to return immediately (p. 46)
• Not enough signs to clas-sify as severe or some dehy-dration.	**NO VISIBLE DEHYDRATION**	➢ Give fluid and food for diarrhoea at home (Plan A, p. 43) ➢ Advise caregiver when to return immediately (p. 46) ➢ Give zinc for 2 weeks (p. 42) ➢ Follow up in 5 days if not improving (p. 48)

and if diarrhoea 14 days or more

• Dehydration present **OR** • Losing weight	**SEVERE PERSISTENT DIARRHOEA**	➢ **Start treatment for dehydration** ➢ **Refer URGENTLY** ➢ **Give frequent sips of ORS on the way** ➢ **Give additional dose of Vitamin A (p. 35)**
• No visible dehydration.	**PERSISTENT DIARRHOEA**	➢ Counsel the caregiver about feeding (p. 18 - 24) ➢ Give additional dose of Vitamin A (p. 35) ➢ Give zinc for 2 weeks (p. 42) ➢ Follow-up in 5 days (p. 48) ➢ Advise the caregiver when to return immediately (p. 46)

and if blood in stool

• Dehydration present **OR** • Age less than 12 months	**SEVERE DYSENTERY**	➢ **Refer URGENTLY** ➢ **Keep child warm (p. 12)** ➢ **Test for low blood sugar, then treat or prevent (p. 36)**
• Age 12 months or more **AND** • No dehydration	**DYSENTERY**	➢ Treat for 3 days with ciprofloxacin (p. 38) ➢ Advise when to return immediately (p. 46) ➢ Follow-up in 2 days (p. 48)

Does the child have fever?

By history, by feel, or axillary temp is 37.5°C or above

IF YES, DECIDE THE CHILD'S MALARIA RISK:
Malaria Risk means: Lives in malaria zone or visited a malaria zone during the past 4 weeks. If in doubt, classify for malaria risk.

ASK

- For how long?

LOOK AND FEEL:

- Look and feel for:
  - stiff neck
  - bulging fontanelle

AND IF MALARIA RISK:

- Do a rapid malaria test

IF MALARIA TEST NOT AVAILABLE:

- Look for a cold with runny nose
- Look for another adequate cause of fever

CONSIDER MEASLES IF:

- Generalized rash with any of the following:
  - Runny nose, or
  - Red eyes, or
  - Cough

Use the Measles chart (p.29)

Classify FEVER

For suspected meningitis

AND if Malaria Risk

• Any general danger sign. **OR** • Stiff neck or bulging fontanelle.	**SUSPECTED MENINGITIS**	➢ **Give first dose of ceftriaxone IM (p. 36)** ➢ **Test for low blood sugar, then treat or prevent (p. 36)** ➢ **Give one dose of paracetamol for fever 38℃ or above (p. 41)** ➢ **Refer URGENTLY**
• None of the above signs.	**FEVER OTHER CAUSE**	➢ Give paracetamol for fever 38℃ or above (p. 41) ➢ If fever present for more than 7 days, consider TB (p. 34) ➢ Treat for other causes ➢ Advise caregiver when to return immediately (p. 46) ➢ Follow-up in 2 days if fever persists (p. 50)

• Any general danger sign. **OR** • Stiff neck or bulging fontanelle.	**SUSPECTED SEVERE MALARIA**	➢ **If Malaria test positive and child older then 12 months, treat for Malaria (p. 41)** ➢ **Treat for SUSPECTED MENINGITIS** ➢ **Test for low blood sugar, then treat or prevent (p. 36)** ➢ **Give one dose of paracetamol for fever 38℃ or above (p. 41)** ➢ **Refer URGENTLY**
• Malaria test positive.	**MALARIA**	➢ **If age less than 12 months, refer URGENTLY** ➢ If older than 12 months, treat for malaria (p. 41) ➢ Give paracetamol for fever 38℃ or above (p. 41) ➢ Advise caregiver when to return immediately (p. 46) ➢ Notify confirmed malaria cases ➢ Follow-up in 2 days if fever persists (p. 50)
• Malaria test not done and PNEUMONIA **OR** • Malaria test not done and no other adequate cause of fever found.	**SUSPECTED MALARIA**	➢ Refer child to facility where Malaria Rapid Test can be done ➢ Give paracetamol for fever 38℃ or above (p. 41) ➢ If fever present for more than 7 days, assess for TB (p. 34)
• Malaria test negative. **OR** • Malaria test not done and a cold with runny nose, or other adequate cause of fever found.	**FEVER OTHER CAUSE**	➢ Give paracetamol for fever 38℃ or above (p. 41) ➢ If fever present for more than 7 days, assess for TB (p. 34) ➢ Treat for other causes ➢ Advise caregiver when to return immediately (p. 46) ➢ Follow-up in 2 days if fever persists (p. 50)

MEASLES: Use this chart if the child has Fever and Generalised rash WITH Runny nose or Cough or Red eyes

ASK:

- Has the child been in contact with anyone with measles?

LOOK:

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

TEST FOR MEASLES

- Take 5 mls of blood for serology and a throat swab for viral isolation
- Send blood specimen on ice—consult EPI co-ordinator or EPI guidelines for details
- Send the throat swab in a packed labeled viral transport tube ensuring that the swab is immersed in the sponge containing the viral transport medium
- Specimens should be collected as soon after onset of rash as possible.

Classify for MEASLES

• Any general danger sign **OR** • PNEUMONIA **OR** • Symptomatic HIV infection **OR** • Clouding of cornea. **OR** • Deep or extensive mouth ulcers.	**SUSPECTED COMPLICATED MEASLES**	➢ **Give additional dose Vitamin A (p. 35)** ➢ **If clouding of the cornea or pus draining from the eye, apply chloramphenicol eye ointment (p. 45)** ➢ **Give first dose of amoxicillin (p. 38) unless child is receiving IM ceftriaxone for another reason.** ➢ **REFER URGENTLY** ➢ **Immunise all close contacts over six months of age within 72 hours of exposure (a close contact is defined as who has been in the same room or vehicle as the child with measles)**
• Measles symptoms present **AND** • Measles test positive.	**MEASLES**	➢ Give additional doses Vitamin A (p. 35) ➢ If pus draining from the eye, treat eye infection with chloramphenicol eye ointment for 7 days (p. 45) ➢ If mouth ulcers, treat with chlorhexidine (p. 45) ➢ Notify EPI coordinator, and complete necessary forms ➢ Isolate the child from other children for 5 days ➢ Immunize all close contacts over six months of age within 72 hours of exposure (a close contact is defined as who has been in the same room or vehicle as the child with measles) ➢ Follow up in 2 days (p. 50)
• Measles test results not available **AND** • Measles symptoms present	**SUSPECTED MEASLES**	➢ Give additional doses Vitamin A (p. 35) ➢ Notify EPI coordinator, and complete necessary forms ➢ Take specimens as advised by EPI coordinator, and send these to the NICD. ➢ Isolate the child from other children for 5 days ➢ Immunize all close contacts over six months of age within 72 hours of exposure (a close contact is defined as who has been in the same room or vehicle as the child with measles) ➢ Follow up in 2 days (p. 50)

NOTE:

IF FEVER IS STILL PRESENT AFTER THE THIRD DAY OF THE RASH, A COMPLICATION SHOULD BE SUSPECTED.

Does the child have an ear problem?

IF YES, ASK:

- Is there ear pain?
- Does it wake the child at night?
- 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.	**MASTOIDITIS**	➢ **Give ceftriaxone IM (p. 36)** ➢ **Give first dose of paracetamol (p. 41)** ➢ **Refer URGENTLY**
• Pus seen draining from the ear and discharge is reported for less than 14 days. or • Ear pain which wakes the child at night	**ACUTE EAR INFECTION**	➢ Give amoxicillin for 5 days (p. 38) ➢ If ear discharge: Teach caregiver to clean ear by dry wicking (p. 45) ➢ Give paracetamol for pain (p. 41). Give for rwo days. ➢ Follow-up in 5 days if pain or discharge persists (p. 50) ➢ Follow-up in 14 days (p. 50)
• Pus is seen draining from the ear. and • Discharge is reported for 14 days or more.	**CHRONIC EAR INFECTION**	➢ Teach caregiver to clean ear by dry wicking (p. 45) ➢ Then instil recommended ear drops, if available (p. 45) ➢ Tell the caregiver to come back if she suspects hearing loss ➢ Follow up in 14 days (p. 50)
• No ear pain or ear pain which does not wake the child at night. and • No pus seen draining from the ear.	**NO EAR INFECTION**	➢ No additional treatment

If the child is three years old or older, ASK: Does the child have a sore throat?

IF YES, ASK:

- Does the child have a runny nose?
- Does the child have a FEVER?
- Does the child have a cough?

LOOK AND FEEL:

- Look for a rash
- Conjunctivitis

Classify SORE THROAT

Sore throat with: • No runny nose • No cough • No rash • No conjunctivitis	**POSSIBLE STREPTOCOCCAL INFECTION**	➢ Give penicillin (p. 37) ➢ Treat pain and fever (p. 41) ➢ Soothe the throat with a safe remedy (p. 45) ➢ Follow-up in 5 days if symptoms worse or not resolving (p. 50)
Sore throat with one of: • Runny nose • Cough • Rash • Conjunctivitis	**SORE THROAT**	➢ Soothe the throat with a safe remedy (p. 45)

THEN CHECK ALL CHILDREN FOR MALNUTRITION

LOOK and FEEL:

- Weigh the child and plot the child's weight on RTHB.
- Look at the shape of the child's weight curve. Does it show weight loss, unsatisfactory weight gain or satisfactory weight gain?
- Is the child's weight normal, low or very low?
- If the child is six months or older measure the child's Mid-Upper Arm Circumference (MUAC) and record in the child's RtHB.
- Measure the child's length/height and plot on the Weight-for-Length/Height chart in the child's RTHB.
- Look for oedema of both feet
- Conduct an Appetite Test if indicated (p. 19)

Classify all children's NUTRITIONAL STATUS

<u>One or more of the following</u> • Oedema of both feet. • WFL/H Z-score < - 3 • MUAC < 11.5cm • Very low weight for age **AND** <u>One or more of the following:</u> • Any danger sign • Any other RED or YELLOW classification • Weighs 4 kg or less • Is less than six months of age • Is not able to finish RUTF (fails the Apetite Test (p.19))	**SEVERE ACUTE MALNUTRITION WITH MEDICAL COMPLICATION**	➢ **Test for low blood sugar, then prevent (p. 36)** ➢ **Keep the child warm (p. 12)** ➢ **Give first dose of Ceftriaxone (p. 36)** ➢ **Give stabilizing feed or F75 (p. 36)** ➢ **Give dose of Vitamin A (p. 35)** ➢ **Refer URGENTLY**
• WFL/H Z-score < - 3 or • MUAC < 11.5 cm. **AND** • Able to finish RUTF • No oedema of both feet • Six months or older • Weighs 4 kg or more • No other RED or YELLOW classification	**SEVERE ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATION**	➢ Give amoxicillin for 5 days (p. 38) ➢ Give dose of Vitamin A (p. 35) ➢ Treat for worms if due (p. 35) ➢ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ➢ Assess for possible HIV & TB infection (p. 33 & 34) ➢ Provide RUTF (p. 42) and counsel caregiver on how to use it (p. 24) ➢ Advise caregiver when to return immediately (p. 46) ➢ Refer to for home visits ➢ Follow up in 7 days (p. 49) ➢ Refer URGENTLY if child develops any medical complication
• WFL/H between -3 and –2 z-score **OR** • MUAC ≥ 11.5 cm < 12.5cm • No oedema of both feet	**MODERATE ACUTE MALNUTRITION**	➢ Give dose of Vitamin A (p. 35) ➢ Treat for worms if due (p. 35) ➢ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ➢ Assess for possible HIV & TB infection (p. 33 & 34) ➢ Provide RUTF according to local guidelines (p. 42) ➢ Advise caregiver when to return immediately (p. 46) ➢ Refer for home visits ➢ Follow up in 7 days (p. 49) ➢ Refer URGENTLY if develops any medical complication
• Losing weight **OR** • Weight gain unsatisfactory	**NOT GROWING WELL**	➢ Assess the child's feeding and counsel the caregiver on the feeding recommendations (p. 18 - 20) ➢ Assess for possible HIV & TB infection (p. 33 & 34) ➢ Treat for worms and give Vitamin A if due (p. 35) ➢ Advise caregiver when to return immediately (p.46) ➢ If feeding problem follow up in 7 days (p. 49) ➢ If no feeding problem, follow-up after 14 days (p. 49)
• Weight normal **AND** • Weight gain satisfactory **AND** • WFL/H –2 z-score or more **AND** • MUAC 12..5 cm or more	**GROWING WELL**	➢ Praise the caregiver ➢ If the child is less than 2 years old, assess the child's feeding and counsel the caregiver on feeding according to the feeding recommendations (p. 18 - 20) ➢ If feeding problem, follow up in 7 days (p. 49)

* MUAC is Mid-Upper Arm Circumference which should measured in all children 6 months or older using a MUAC tape.
** Growth curve flattening/decreasing is defined by changes on the growth curve over a 2-3 month period

THEN CHECK ALL CHILDREN FOR ANAEMIA

LOOK:

- Look for palmar pallor. Is there:
  - Severe palmar pallor?
  - Some palmar pallor?
- If any pallor, check haemoglobin (Hb) level.

Classify all children for ANAEMIA

• Severe palmar pallor **OR** • HB < 7g/dl	**SEVERE ANAEMIA**	➢ **Refer URGENTLY**
• Some palmar pallor **OR** • Hb 7 g/dl up to 10 g/dl.	**ANAEMIA**	➢ Give iron (p. 42) and counsel on iron-rich foods (p. 18) ➢ Assess feeding and counsel regarding any feeding problems (p. 18 - 24) ➢ Treat for worms if due (p. 35) ➢ Advise caregiver when to return immediately (p. 46) ➢ Follow-up in 14 days (p. 49)
• No pallor.	**NO ANAEMIA**	➢ If child is less than 2 years, assess feeding and counsel (p. 18 - 20)

NOTE:

- DO NOT give Iron if the child is receiving RUTF. Small amounts are available in RUTF.
- Iron is extremely toxic in overdose, particularly in children All medication should be stored out of reach of children.

THEN CHECK ALL CHILDREN FOR HIV INFECTION

Has the child been tested for HIV infection?

IF YES, ASK:

- What was the result?
- If the test was positive, is the child on ART?
- If the test was negative, was the child still breastfeeding at the time that the test was done, or had the child been breastfed in the six weeks before the test was done? Is the child still breastfeeding?

HIV testing in children:

- Some infants will have been tested at birth. If this was done, make sure that you obtain the infant's result.
- If the test was negative, re-test:
  - If the child is ill or has features of HIV infection
  - At 6 weeks of age
  - At 16 weeks - infants who received extended (12 weeks) nevirapine
  - 6 weeks after stopping breastfeeding
  - At 18 months of age

Below 18 months of age, use an HIV PCR test to determine the child's HIV status. Do not use an antibody test to determine HIV status in this age group.
If HIV PCR positive, do a second HIV PCR test to confirm the child's status.

18 months and older, use a rapid (antibody) test to determine HIV status. If the rapid test is positive then it should be repeated (using a confirmatory test kit). If the confirmatory test is positive, this confirms HIV infection. If the second test is negative, refer for ELISA test and assessment.

Classify for HIV infection in the child

• Positive HIV test in child. **OR** • Child on ART	**HIV INFECTION**	➢ Follow the six steps for initiation of ART (p. 53) ➢ Give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 18 - 24) ➢ Ask about the caregiver's health and manage appropriately ➢ Provide long term follow-up (p. 59)
• Child is receiving 6 or 12 weeks of infant ARV prophylaxis	**HIV EXPOSED: ON ARV PROPHYLAXIS**	➢ Complete appropriate ARV prophylaxis (p. 13) ➢ Give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 9, 17 - 24) ➢ Repeat PCR test according to testing schedule. Reclassify on the basis of the test result. ➢ Ask about the caregiver's health, and ensure that she is receiving the necessary care and treatment. ➢ Provide follow-up care (p. 51)
• Negative HIV test **AND** • Child still breastfeeding or stopped breastfeeding less than 6 weeks before test was done.	**ONGOING HIV EXPOSURE**	➢ Complete appropriate infant ARV prophylaxis (p. 13.) ➢ Give cotrimoxazole prophylaxis from 6 weeks (p. 39) ➢ Assess feeding and counsel appropriately (p. 18 - 20) ➢ Repeat HIV testing when indicated. Reclassify the child based on the test result. ➢ Provide follow-up care (p. 51)
• Negative HIV test. **AND** • Child no longer breastfeeding (stopped at least six weeks before test was done).	**HIV NEGATIVE**	➢ Stop cotrimoxazole ➢ Consider other causes if child has features of HIV infection (repeat HIV test if indicated).

ASK:

- Has the mother had an HIV test? If YES, was it negative or positive?

Classify for HIV infection

FEATURES OF HIV INFECTION

ASK:

- Does the child have PNEUMONIA now?
- Is there PERSISTENT DIARRHOEA now or in the past three months?
- Has the child ever had ear discharge?
- Is there low weight?
- Has weight gain been unsatisfactory?

LOOK and FEEL:

- Any enlarged lymph glands in two or more of the following sites - neck, axilla or groin?
- Is there oral thrush?
- Is there parotid enlargement?

• 3 or more features of HIV infection.	**SUSPECTED SYMPTOMATIC HIV INFECTION**	➢ Give cotrimoxazole prophylaxis (p. 39) ➢ Counsel and offer HIV testing for the child. Reclassify the child on the basis of the test result. ➢ Counsel the caregiver about her health, offer HCT and treatment as necessary. ➢ Assess feeding and counsel appropriately (p. 18-20) ➢ Provide long-term follow-up (p. 51)
• Mother HIV positive	**HIV EXPOSED**	➢ Give infant ARV prophylaxis as shown on p.13. ➢ Give cotrimoxazole prophylaxis (p. 39) - unless child is older than one year and clinically well ➢ Counsel and offer HIV testing for the child. Reclassify based on the test result. ➢ Counsel the caregiver about her health, and provide treatment as necessary. ➢ Assess feeding and counsel appropriately (p. 18 - 24) ➢ Provide long-term follow-up (p. 51)
• One or two features of HIV infection	**POSSIBLE HIV INFECTION**	➢ Provide routine care including HCT for the child ➢ Counsel the caregiver about her health, offer HCT and treatment as necessary. ➢ Reclassify the child based on the test results
• No features of HIV infection	**HIV INFECTION UNLIKELY**	➢ Provide routine care including HCT for the child and caregiver. ➢ Reclassify the child based on the test results.

THEN CLASSIFY ALL CHILDREN FOR TB RISK

ASK:
- Any history of TB contact in the past twelve months?

SCREENING QUESTIONS
- Cough for more than two weeks?
- Fever for more than seven days?
- NOT GROWING WELL?

Classify for TB RISK

• A close TB contact. **AND** • Answers YES to any of screening questions	**HIGH RISK OF TB**	➢ Do Full TB assessment ➢ Follow-up after 48 to 72 hours to read TST ➢ Follow-up after one week and classify child's TB status on the next chart.
• Answers YES to one or more screening questions	**RISK OF TB**	➢ Do Full TB assessment ➢ Follow-up after 48 to 72 hours to read TST ➢ Follow-up after one week and classify child's TB status on the next chart
• A close TB contact **AND** • No features of TB	**TB EXPOSED**	➢ Treat with INH for 6 months (p. 39) ➢ If CXR available send for CXR. If CXR abnormal, refer for assessment ➢ Trace other contacts ➢ Follow-up monthly (p. 52)
• No close TB contact **AND** • No features of TB	**LOW RISK OF TB**	➢ Routine care

FULL TB ASSESSMENT

STEP 1: ASK ABOUT FEATURES OF TB:
- Persistent, non-remitting cough or wheeze for more than 2 weeks.
- Documented loss of weight or unsatisfactory weight gain during the past 3 months (especially if not responding to deworming together with food and/or micronutrient supplementation).
- Fatigue/reduced playfulness.
- Fever every day for 14 days or more.

STEP 2: SEND SPUTUM OR GASTRIC ASPIRATE FOR EXPERT AND CULTURE

STEP 3: DO A TST

STEP 4: IF AVAILABLE DO OR SEND CHILD FOR A CXR

THEN CLASSIFY FOR TB

ASK ABOUT FEATURES OF TB:

REVIEW RESULTS OF SPUTUM/GASTRIC ASPIRATE:
Are they positive or negative?

IS THE TST POSIITIVE OR NEGATIVE?
Check the Tuberculin Skin Test - if it measures more than 10 mm (or 5 mm in an HIV infected child) it is positive.

REVIEW RESULTS OF CXR:
Is it suggestive of TB?

Classify For TB

• TB culture or Expert positive **OR** • Referred with diagnosis of TB	**CONFIRMED TB**	➢ Notify and Register in TB register ➢ Treat for TB (p. 40) ➢ Trace contacts and manage according to TB guidelines ➢ Counsel and test for HIV if HIV status unknown (p. 33) ➢ Follow-up monthly to review progress (p. 52)
• Two or more features of TB present **AND** • Close TB contact or TST positive	**PROBABLE TB**	➢ If CXR available, refer for CXR and further assessment ➢ If CXR not available, treat for TB (p. 40) ➢ Notify and register in TB register ➢ Trace contacts and manage according to TB guidelines ➢ Counsel and test for HIV if HIV status unknown ➢ Follow-up monthly to review progress (p. 52) ➢ Reclassify if necessary once results of Expert or culture available.
• One or more feature of TB persist, but Expert is negative and CXR not suggestive of TB	**POSSIBLE TB**	➢ Counsel and test for HIV if HIV status unknown ➢ Consult the National TB guidelines or refer for further assessment
• No features of TB present **AND** • Close TB contact or TST positive	**TB EXPOSED**	➢ Treat with INH for 6 months (p. 39) ➢ If CXR available send for CXR. If CXR abnormal, refer for assessment ➢ Trace other contacts ➢ Follow-up monthly (p. 52)
• No close TB contact **AND** • No features of TB present	**TB UNLIKELY**	➢ Routine follow-up

NOTE:
* A close TB contact is an adult who has had pulmonary TB in the last 12 months, who lives in the same household as the child, or some-one with whom the child is in close contact or in contact for extended periods. If in doubt, discuss the case with an expert or refer the child.

Chest X-rays can assist in making the diagnosis of TB in children. Decisions as to how they are used in your area should be based on the availability of expertise for taking and interpreting good quality Xrays in children. Follow local guidelines in this regard. Although it is advisable that all children should have a CXR before TB treatment is commenced, where good quality CXR are not available, do not delay treatment.

If you are unsure about the diagnosis of TB, refer the child for assessment and investigation.

THEN CHECK THE CHILD'S IMMUNISATION STATUS AND GIVE ROUTINE TREATMENTS

IMMUNISATION SCHEDULE:	**Birth**	BCG	OPV0			
	6 weeks	Hexavalent1 (DaPT-IPV-HB-Hib1)	OPV1		PCV1	RV1
	10 weeks	Hexavalent2 (DaPT-IPV-HB-Hib2)				
	14 weeks	Hexavalent3 (DaPT-IPV-HB-Hib3)			PCV2	RV2
	9 months			Measles1	PCV3	
	18 months	Hexavalent4 (DaPT-IPV-HB-Hib4)		Measles2		
	6 years	Td				
	12 years	Td				

- Give all missed immunisations on this visit (observing contraindications).
- This includes sick children and those without a RTHB.
- If the child has no RTHB, give a new one today.
- Advise caregiver when to return for the next immunisation.
- Give routine Vitamin A (p. 35) and record on the RTHB.
- Give routine treatment for worms (p. 35) and record on the RTHB.
- Give measles vaccine at 6, 9 and 18 months to all children with confirmed HIV infection.
- Refer to the EPI Vaccinators Manual or EDL for catch up schedule and contraindications

ASSESS ANY OTHER PROBLEM e.g. Skin rash or infection, eye infection

CHECK THE CAREGIVER'S HEALTH

Give Vitamin A

- Give Vitamin A routinely to all children from the age of 6 months to *prevent* severe illness (prophylaxis).
- If the child has had a dose of Vitamin A in the past 30 days, defer Vitamin A until 30 days has elapsed.
- Vitamin A is not contraindicated if the child is on multivitamin treatment.
- Vitamin A capsules come in 100 000 IU and 200 000 IU.
- Record the date Vitamin A given on the RTHB.

ROUTINE VITAMIN A*

Age	Vitamin A dose
6 up to 12 months	A single dose of 100 000 IU at age 6 months or up to 12 months
1 up to 5 years	A single dose of 200 000 IU at 12 months, then a dose of 200 000 IU every 6 months up to 5 years

ADDITIONAL DOSE FOR SEVERE MALNUTRITION, PERSISTENT DIARRHOEA, MEASLES OR XEROPHTHALMIA*

- Give therapeutic (non-routine) dose of Vitamin A if the child has SEVERE ACUTE MALNUTRITION, PERSISTENT DIARRHOEA, measles or xerophthalmia.
- If the child has measles or xerophthalmia, give caregiver a second dose to take the next day.

Age	Vitamin A Additional dose
< 6 months	50 000IU
6 up to 12 months	100 000 IU
1 up to 5 years	200 000 IU

***Xerophthalmia means that the eye has a dry appearance**

Give Mebendazole

- Children older than one year of age should receive routine deworming treatment every six months. Mebendazole is the only medicine recommended by the EDL for deworming.
- Give single dose or first dose of Mebendazole in the clinic.
- If you are using Albendazole, make sure that you give the correct dose.
- Record the dose on the RTHB

AGE	MEBENDAZOLE		
	Suspension (100 mg per 5 ml)	**Tablet (100 mg)**	**Tablet (500 mg)**
12 up to 24 months	5 ml twice daily for 3 days	One tablet twice daily for 3 days	
2 up to 5 years	25 ml as single dose	Five tablets as single dose	One tablet as single dose

GIVE THESE TREATMENTS IN THE CLINIC ONLY

- **Explain to the caregiver why the medicine is given.**
- **Determine the dose appropriate for the child's weight (or age).**
- **Measure the dose accurately.**

Prevent low blood sugar (hypoglycaemia)

- **If the child is able to swallow:**
  - If breastfed: ask the mother to breastfeed the child, or give expressed breastmilk.
  - If not breastfed**:** give a breastmilk substitute or sugar water. Give 30 - 50 ml of milk or sugar water before the child leaves the facility.
  - To make sugar water: Dissolve 4 level teaspoons of sugar (20 grams) in a 200 ml cup of clean water.
- **If the child is not able to swallow:**
  - Insert nasogastric tube and check the position of the tube.
  - Give 50 ml of milk or sugar water by nasogastric tube (as above).

Treat for low blood sugar (hypoglycaemia)

Low blood sugar < 3 mmol/L in a child

- Suspect low blood sugar in any infant or child that:
  - is convulsing, unconscious or lethargic; OR
  - has a temperature below 35ºC.
- Children with severe malnutrition are particularly likely to be hypoglycaemic.
- Confirm low blood sugar using blood glucose testing strips.
- Treat with:
  - 10% Glucose - 5 ml for every kg body weight - by nasogastric tube OR intravenous line.
  - Keep warm.

Give F-75 for SEVERE ACUTE MALNUTRITION WITH MEDICAL COMPLICATIONS

- Encourage the caregiver to continue breastfeeding and giving F-75 during referral.
- Give one feed immediately. Repeat two hourly until the child reaches the hospital.
- Keep the child warm (p. 12)

WEIGHT	F - 75
3.0 - < 5 kg	60 ml
5 - < 8 kg	90 ml
≥ 8 kg	120 ml

Give Diazepam to stop Convulsions

- Turn the child to the side and clear the airway. Avoid putting things in the mouth.
- Give 0.5 mg per kg diazepam injection solution per rectum. Use a small syringe without a needle or a catheter.
- Test for low blood sugar, then treat or prevent.
- **Give oxygen (p. 37).**
- **REFER URGENTLY.**
- If convulsions have not stopped after 10 minutes, repeat the dose once while waiting for transport.

WEIGHT	AGE	DIAZEPAM 10 mg in 2 ml
3 - < 4 kg	0 up to 2 months	2 mg (0.4 ml)
4 - < 5 kg	2 up to 3 months	2.5 mg (0.5 ml)
5 - < 15 kg	3 up to 24 months	5 mg (1 ml)
15 - 25 kg	2 up to 5 years	7.5 mg (1.5 ml)

Give Ceftriaxone IM

- Wherever possible use the weight to calculate the dose.
- If the child has a bulging fontanelle or a stiff neck, give double the dose (100 mg/kg).
- **Dilute 250 mg vial with 1 ml of sterile water, or 500 mg with 2 ml sterile water (250 mg per ml).**
- **Give the injection in the upper thigh, not the buttocks.**
- **IF REFERRAL IS NOT POSSIBLE OR DELAYED, repeat the ceftriaxone injection every 24 hours.**

WEIGHT	AGE	CEFTRIAXONE DOSE IN MG	CEFTRIAXONE DOSE IN ML
< 3 kg	0 up to 3 months	125 mg	½ ml
3 - < 6 kg		250 mg	1.0 ml
6 - < 10 kg	3 up to 12 months	500 mg	2.0 ml
10 - < 15 kg	12 up to 24 months	750 mg	3.0 ml
≥ 15 kg	2 up to 5 years	1 g	4.0 (give 2 ml in each thigh)

GIVE THESE TREATMENTS IN THE CLINIC ONLY

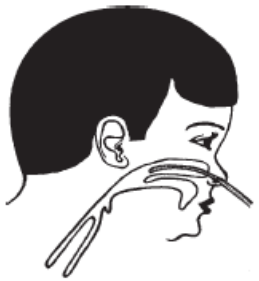
- **Explain to the caregiver why the medicine is given.**
- **Determine the dose appropriate for the child's weight (or age).**
- **Measure the dose accurately.**

Give Oxygen

- Give oxygen to all children with:
  - severe pneumonia, with or without wheeze
  - lethargy or if the child is unconscious
  - convulsions
- Use nasal prongs or a nasal cannula.

Nasal prongs

- Place the prongs just inside or below the baby's nostrils.
- Secure the prongs with tape
- Oxygen should flow 1 - 2 litres per minute



Nasal cannula

- This method delivers a higher concentration of oxygen
- Insert a FG8 nasogastric tube.
- Measure the distance from the side of the nostril to the inner eyebrow margin with the catheter.
- Insert the catheter as shown in the diagramme.
- Secure with tape
- Turn on oxygen to flow of half to one a litre per minute

Give Prednisone for STRIDOR or RECURRENT WHEEZE with severe classification

- **Give one dose of prednisone as part of pre-referral treatment for STRIDOR or for RECURRENT WHEEZE with severe classification.**

WEIGHT	AGE	PREDNISONE 5 mg
Up to 8 kg	-	2 tabs
> 8 kg	Up to 2 years	4 tabs
	2 - 5 years	6 tabs

Give Nebulized Adrenaline for STRIDOR

- Add 1 ml of 1:1000 adrenaline (one vial) to 1 ml of saline and administer using a nebulizer.
- Always use oxygen at flow-rate of 6 - 8 litres.
- Repeat every 15 minutes, until the child is transferred (or the stridor disappears)
- **Give one dose of prednisone as part of pre-referral treatment for stridor**

Give IM Penicillin for POSSIBLE STREPTOCOCCAL INFECTION

Give IM single dose OR oral treatment twice daily (p. 38)

- **IM Penicillin is the treatment of choice (see below).**
- Give erythromycin or azithromycin if the child is allergic to penicillin (p. 38)
- Only give oral penicillin if the caregiver does not want the child to have an injection (p. 38)..
- **Dilute 1.2 million units with 3 ml of sterile water or 3.2 ml of lidocaine 1% without adrenaline.**

WEIGHT	AGE	BENZATHINE BENZYLPENICILLIN IM INJECTION	
		1.2mu in 3.2 ml lidocaine 1% without adrenaline	1.2 mu in 3ml water
Up to 30 kg	3 up to 5 years	1.6 ml	1.5ml

Give Salbutamol for WHEEZE with severe classification

SALBUTAMOL	
Nebulised salbutamol (2.5 ml nebule)	Dilute 1ml in 3 ml saline. Nebulise in the clinic. Always use oxygen at flow rate of 6-8 litres. If still wheezing repeat every 15 minutes in first hour and 2 - 4 hourly thereafter. Add Ipratropium bromide 0.5 ml if available
OR	
MDI - 100 ug per puff	4 - 8 puffs using a spacer. Allow 4 breaths per puff. If still wheezing repeat every 15 minutes in first hour and 2 - 4 hourly thereafter.

TREAT THE SICK CHILD

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

TEACH THE CAREGIVER TO GIVE ORAL MEDICINES AT HOME

Follow the general instructions below for all oral medicines to be given at home
Also follow the instructions listed with the dosage table for each medicine

- **Determine the appropriate medicines and dosage for the child's weight or age.**
- **Tell the caregiver the reason for giving the medicine to the child.**
- **Demonstrate how to measure a dose.**
- **Watch the caregiver practise measuring a dose by herself.**
- **Explain carefully how to give the medicine.**
- **Ask the caregiver to give the first dose to her child.**
- **Advise the caregiver to store the medicines safely.**
- **Explain that the course of treatment must be finished, even if the child is better.**
- **Check the caregiver's understanding before she leaves the clinic.**

Give Amoxicillin* for Pneumonia, Acute Ear Infection or Severe Acute Malnutrition without medical complications

Give three times daily for 5 days.
* If the child is allergic to penicillins, or amoxicillin is out of stock, use Erythromycin

WEIGHT	AGE	AMOXICILLIN SYRUP	
		(125 mg per 5 ml)	(250 mg per 5 ml)
< 7 kg	2 up to 6 months	7.5 ml	4 ml
7 - < 10 kg	6 up to 12 months	10 ml	5 ml
10 - < 15 kg	12 up to 24 months	15 ml	7.5 ml
15 - < 25 kg	2 up to 5 years	20ml	10 ml

Give Erythromycin or Azithromycin if allergic to Penicillin

- Give erythromycin or azithromycin depending on the child's weight
- Give erythromycin for three days for ACUTE EAR INFECTION or for 10 days for POSSIBLE STREPTOCOCCAL INFECTION.
- Give azithromycin once daily for three days only.

WEIGHT	AGE	ERYTHROMYCIN SYRUP (125 mg per 5 ml)	AZITHROMYCIN TABLET (250 mg)
5 - < 7 kg	3 up to 6 months	3 ml	
7 - < 9 kg	6 up to 12 months	4 ml	
9 - < 11 kg	12 up to 18 months	5 ml	
11 - < 14 kg	18 months up to 3 years	6 ml	
14 - < 18 kg	3 up to 5 years	8 ml	
> 18 kg			One tablet

Give Ciprofloxacin for Dysentery

Give twice a day for 3 days

WEIGHT	AGE	CIPROFLOXACIN SYRUP (250 mg per 5ml)
7 - < 15 kg	12 up to 24 months	1ml
15 - < 25 kg	2 up to 5 years	3ml

Give Penicillin for POSSIBLE STREPTOCOCCAL INFECTION

Give twice a day for 10 days

- The recommended treatment for POSSIBLE STREPTOCOOCAL INFECTION is IM Benzathine Benzylpenicillin (p. 37).
- Only give oral penicillin if the caregiver refuses an injection.
- If the child is allergic, use erythromycin instead.

WEIGHT	AGE	PHENOXYMETHYL PENICILLIN	
		SYRUP (250 mg per 5ml)	TABLET (250 mg)
11 - < 35 kg	3 up to 5 years	5 ml	One tablet

TEACH THE CAREGIVER TO GIVE ORAL MEDICINES AT HOME

INH for TB EXPOSURE

Give once daily

- **Follow the general instructions for all oral medicines to be given at home.**
- Tablets can be crushed and dissolved in water if necessary
- Treatment must be given for 6 months.
- Follow-up children each month (p. 52) to check adherence and progress, and to provide medication.

WEIGHT	ISONIAZID (INH) 100 mg tablet Once daily
2 - < 3.5 kg	¼ tab
3.5 - < 5 kg	½ tab
5 - < 10 kg	1 tab
10 - < 12.5 kg	1¼ tabs
12.5 - < 15 kg	1½ tabs
15 - < 20 kg	2 tabs
20 - 25 kg	2½ tabs
≥ 25 kg	3 tabs

Give Cotrimoxazole

Give once daily as prophylaxis

- Give from 6 weeks to all HIV positive or exposed children unless child is HIV NEGATIVE.
- Continue cotrimoxazole until the child is shown to be HIV-uninfected **and** has not been breastfed for the last 6 weeks.
- Give to all children with HIV INFECTION (criteria for stopping in children on ART are shown on p. 59 Step 4).

WEIGHT	COTRIMOXAZOLE SYRUP	COTRIMOXAZOLE TABLET	
	(200/40 mg per 5 ml)	400/80 mg	800/160 mg
2.5 - < 5 kg	2.5 ml	¼ tablet	
5 - < 14 kg	5 ml	½ tablet	
14 - < 30 kg	10 ml	1 tablet	½ tablet
≥ 30 kg		2 tablets	1 tablet

Teach the caregiver to give oral medicines at home

- **Follow the general instructions for all oral medicines to be given at home.**
- **Also follow the instructions listed with the dosage table of each medicine.**
- **Do not change the regimen of children referred from hospital or a TB clinic without discussing this with an expert**
- **Treatment should be given as Directly Observed Treatment (DOT) 7 days a week.**
- **Follow-up children each month (p. 52) to check adherence and progress.**

Give Regimen 3A for UNCOMPLICATED TB

- Uncomplicated TB includes low bacilliary load TB disease such as pulmonary TB with minimal lung parenchymal involvement (with or without involvement of hilar nodes), TB lymphadenitis and TB pleural effusion.
- Any child with a positive Xpert or culture result must be treated with Regiment 3B.
- All children should receive Rifampicin/INH (RH) together with pyrazinamide (PZA) for two months followed by RH for a further four months.
- For small infants dissolve one dispersible PZA tablet (150 mg) in 3 ml of water.
- Add Pyridoxine 12.5mg daily for 6 months if the child is HIV positive or malnourished

REGIMEN 3A	**INTENSIVE PHASE TWO MONTHS Once daily**			**CONTINUATION PHASE FOUR MONTHS Once daily**
WEIGHT	**RH (60mg/60)mg**	**PZA (500mg)** **OR**	**PZA** 150 mg/3 ml**	**RH (60mg/60mg)**
2 - < 3 kg	½ tab	EXPERT ADVICE ON DOSE	1.5 ml	½ tab
3 - < 4 kg	¾ tab	¼ tab	2.5 ml	¾ tab
4 - < 6 kg	1 tab	¼ tab	3 ml	1 tab
6 - < 8 kg	1½ tab	½ tab		1½ tabs
8 - < 12 kg	2 tabs	½ tab		2 tabs
12 - < 15 kg	3 tabs	1 tab		3 tabs
15 - < 20 kg	3½ tabs	1 tab		3½ tabs
20 - < 25 kg	4½ tabs	1½ tabs		4½ tabs
25- < 30 kg	5 tabs	2 tabs		5 tabs

Give Regimen 3B for COMPLICATED TB

- Use this regimen in children with all forms of severe TB (extensive pulmonary TB, spinal or osteo-articular TB or abdominal TB) or retreatment cases.
- All children should receive four medicines during the intensive phase (Rifampicin/INH (RH), pyrazinamide (PZA) and ethambutol) for two months. This is followed by RH for a further four months (continuation phase).
- For small infants dissolve one dispersible PZA tablet (150 mg) in 3 ml of water.
- To make ethambutol solution, crush one tablet (400 mg) to a fine powder and dissolve in 8 ml of water. Discard unused solution.
- Add Pyridoxine 12.5 mg daily for 6 months if the child is HIV positive or malnourished

REGIMEN 3B	**INTENSIVE PHASE TWO MONTHS Once daily**				**CONTINUATION PHASE FOUR MONTH Once daily**
WEIGHT	**RH (60mg/60mg)**	**PZA (500mg)** **OR**	**PZA** 150 mg/3 ml**	**ETHAMBUTOL 400mg/8ml solution OR 400 mg tablet**	**RH (60mg/60mg)**
2 - < 3 kg	½ tab	EXPERT ADVICE ON DOSE	1.5 ml	1ml	½ tab
3 - < 4 kg	¾ tab	¼ tab	2.5 ml	1.5ml	¾ tab
4 - < 6 kg	1 tab	¼ tab	3 ml	2ml	1 tab
6 - < 8 kg	1½ tab	½ tab		3ml	1½ tabs
8 - < 12 kg	2 tabs	½ tab		½ tab	2 tabs
12 - < 15 kg	3 tabs	1 tab		¾ tab	3 tabs
15 - < 20 kg	3½ tabs	1 tab		1 tab	3½ tabs
20 - < 25 kg	4½ tabs	1½ tabs		1 tab	4½ tabs
25- < 30 kg	5 tabs	2 tabs		1½ tabs	5 tabs

TEACH THE CAREGIVER TO GIVE MEDICINES AT HOME

- **Follow the general instructions for all oral medicines to be given at home.**
- **Also follow the instructions listed with the dosage table of each medicine.**

Treat for Malaria

- Give the current malaria treatment recommended for your area. See the Malaria Treatment Guidelines.
- **Treat only test-confirmed malaria. Refer if unable to test, or if the child is unable to swallow, or is under one year of age.**
- Record and notify malaria cases.

In all provinces combination therapy (Co-Artem^{R}) must be used.
It is advisable to consult the provincial guidelines on a regular basis.

Artemether + Lumefantrine (Co-Artem^{R})

- Watch the caregiver give the first dose of Co-Artem^{R} in the clinic and observe for one hour**.** If the child vomits within an hour repeat the dose.
- Give Co-Artemether with fat-containing food/milk to ensure adequate absorption. food.
- Give first dose immediately
- Second dose should be taken at home 8 hours later. Then twice daily for two more days.

WEIGHT	CO-ARTEMETHER TABLET (20mg/120mg)	
	Day 1: First dose and repeat this after 8 hours (2 doses)	**Days 2 and 3: take dose twice daily (4 doses)**
< 15 kg	1 tablet	1 tab twice a day
15 - 25 kg	2 tablets	2 tabs twice a day

Give Salbutamol for Wheeze

- Home treatment should be given with an MDI and spacer.
- Teach caregiver how to use it.
- While the child breathes, spray 1 puff into the bottle. Allow the child to breathe for 4 breaths per puff.

SALBUTAMOL	
MDI - 100 ug per puff:	1-2 puffs using a spacer. Allow 4 breaths per puff. Repeat 3 to 4 times a day.

Give Paracetamol for Fever 38℃ or above, or for Pain

- Give one dose for fever 38^{o}C or above.
- For pain: give paracetamol every 6 hours until free of pain (maximum one week)
- Treat the underlying cause of fever or pain.
- Refer if no pain relief with paracetamol

WEIGHT	AGE	PARACETAMOL SYRUP (120 mg per 5 ml)
3 - < 5 kg	0 up to 3 months	2 ml
5 - < 7 kg	3 up to 6 months	2.5 ml
7 - < 9 kg	6 up to 12 months	4 ml
9 - < 14 kg	12 months up to 3 years	5 ml
14 - < 17.5 kg	3 years up to 5 years	7.5 ml

TEACH THE CAREGIVER TO GIVE ORAL MEDICINES AT HOME

- **Follow the general instructions for every oral medicines to be given at home.**
- **Also follow the instructions listed with the dosage table of each medicine.**

Give Iron for Anaemia

- Give three doses daily. Supply enough for 14 days.
- Follow-up every 14 days and continue treatment for 2 months.
- Each dose is 2 mg elemental iron for every kilogram weight. Elemental iron content depends on the preparation you have.
- Check the strength and dose of the iron syrup or tablet very carefully.
- Tell caregiver to **keep Iron out of reach of children**, because an overdose is very dangerous.
- Give Iron with food if possible. Inform the caregiver that it can make the stools look black.
- **REMEMBER: Do not give Iron if the child is receiving the RUTF, as RUTF contains sufficient iron.**

WEIGHT	Age Only if you do not know the weight	Ferrous Gluconate (40 mg elemental iron per 5 ml) OR	Ferrous Lactate drops (25 mg elemental iron per ml) OR	Ferrous Sulphate tablet (60 mg elemental iron)
		Give 3 times a day with meals		
3 - < 6 kg	0 up to 3 months	1.25 ml	0.3 ml (½ dropper)	
6 - < 10 kg	3 up to 12 months	2 .5 ml	0.6 ml (1 dropper)	
10 - < 25 kg	One up to 5 years	5.0 ml	0.9 ml (1½ dropper)	½ tablet

Give RUTF for ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATIONS

- Give RUTF to all children classified as SEVERE ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATIONS
- The child should be at least 6 months of age and weigh more than 4 kg.
- Make sure that the caregiver knows how to use the RUTF (p. 24)
- The child may have been referred from hospital for ongoing care.
- If RUTF is out-of-stock or not available, refer all children with SEVERE ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATIONS to hospital.

WEIGHT	RUTF 500Kcal/92gm sachet	
	Sachets (per day)	Sachets (per week)
4 - < 5 kg	2	14
5 - < 7 kg	2½	18
7 - < 8.5 kg	3	21
8.5 - < 9.5 kg	3½	25
9.5 - < 10.5 kg	4	28
10.5 - < 12 kg	4½	32
≥ 12 kg	5	35

Give Multivitamins

- Give prophylaxis dose to child with Low birth Weight or Preterm from the third week of life
- Give to children with Severe Acute Malnutrition not on feed with combined mineral and vitamin complex (CMV) or Anaemia

AGE		MULTIVITAMINS Once Daily	
		Drops	Syrup
Birth to 6 weeks	< 2.5 kg	0.3 ml	
	≥ 2.5 kg	0.6 ml	
All other children			5 ml

Give Elemental Zinc
(zinc sulphate, gluconate, acetate or picolinate)

- Give all children with diarrhoea zinc for 2 weeks.

WEIGHT	ELEMENTAL ZINC Once daily
Up to 10 kg	10 mg
≥ 10 kg	20 mg

GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

Plan A: Treat for Diarrhoea at Home

Counsel the caregiver on the 4 Rules of Home Treatment:

1. Give Extra Fluid 2. Give Zinc 3. Continue Feeding 4. When to Return

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

- **COUNSEL THE CAREGIVER:**
  - Breastfeed frequently and for longer at each feed.
  - If the child is exclusively breastfed, give sugar-salt solution (SSS) or ORS in addition to breastmilk.
  - If the child is not receiving breastmilk or is not exclusively breastfed, give one or more of the following: food-based fluids such as soft porridge, amasi (maas) or SSS or ORS.
  - **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 CAREGIVER HOW TO MIX AND GIVE SSS or ORS:**
  To make SSS:
  1 litre boiled water + 8 level teaspoons sugar + half a level teaspoon salt.
  SSS is the solution to be used at home to *prevent* dehydration.

  NB The contents of the ORS sachet is mixed with clean water and administered to correct dehydration.

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

Up to 2 years	50 to 100 ml after each loose stool.
2 years or more	100 to 200 ml after each loose stool.

  - **Counsel the caregiver 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 (p. 42)**

3. **CONTINUE FEEDING (p. 17 - 24)**

4. **WHEN TO RETURN (p. 15 or p. 46)**

Plan B: Treat for 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.**

* ***The amount of ORS needed each hour is about 20 ml for each kilogram weight. Multiply the child's weight in kg by 20 for each hour. Multiply this by four for the total number of ml over the first four hours. One teacup is approximately 200 ml.***

- **SHOW THE CAREGIVER HOW TO GIVE ORS SOLUTION:**
  - Give frequent small sips from a cup.
  - If the child vomits, wait 10 minutes. Then continue, but more slowly.
  - Counsel the mother to continue breastfeeding whenever the child wants.
  - If the child wants more ORS than shown, give more.

- **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 CAREGIVER MUST LEAVE BEFORE COMPLETING TREATMENT, OR THE CLINIC IS CLOSING:**
  - Refer if possible. Otherwise:
    - Show her how to prepare ORS solution at home.
    - Show her how much ORS to give to finish the 4-hour treatment at home.
    - Show her how to prepare SSS for use at home.
    - Explain the Four Rules of Home Treatment:

1. **GIVE EXTRA FLUID**

2. **GIVE ZINC (p. 42)**

3. **CONTINUE FEEDING (p. 17 - 24)**

4. **WHEN TO RETURN (p. 15 or p. 46)**

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.

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. Weigh the child or estimate the weight.
- Give Normal Saline IV:

Within the first half hour:	Plan for the next 5 hours:
Rapidly give 20 ml IV for each kilogram weight, before referral (weight x 20 gives ml needed). **Repeat** this amount up to twice if the radial pulse is weak or not detectable.	**More slowly** give 20 ml IV for each kilogram weight, every hour, during referral. Ensure the IV continues running, but does not run too fast.

- **REFER URGENTLY for further management.**
- **Reassess the child every 1- 2 hours while awaiting transfer.** If hydration status is not improving, give the IV drip more rapidly.
- Also give ORS (about 5 ml per kilogram each hour) as soon as the child can drink: usually after 3 - 4 hours (infants) or 1 - 2 hours (children).
- Reassess the child after 3 hours if he/she is still at the clinic. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment. Refer the child to hospital even if he/she no longer has severe dehydration.
- If caregiver refuses or you cannot refer, observe child in clinic for at least 6 hours after he/she has been fully rehydrated.

NO ↓

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

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

NO ↓

Are you trained to use a nasogastric (NG) tube for rehydration? — YES →

NO ↓

Can the child drink? — YES →

- **Start rehydration with ORS solution, by tube**: give 20 ml per kg each hour for 6 hours (total of 120 ml per kg).
- **REFER URGENTLY for further management.**
- **Reassess the child every 1-2 hours while awaiting transfer:**
  - If there is repeated vomiting give the fluid more slowly.
  - **If there is abdominal distension stop fluids and refer urgently.**
  - After 6 hours reassess the child if he/she is still at the clinic. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

NO ↓

Refer URGENTLY to hospital for IV or NG treatment

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

* Exception: Another severe classification

e.g. suspected meningitis, severe malnutrition

- Too much IV fluid is dangerous in very sick children. Treatment should be supervised very closely in hospital.
- Set up a drip for severe dehydration, but give Normal Saline **only 10 ml per kilogram over one hour.**
- Then give sips of ORS while awaiting urgent referral.

TEACH THE CAREGIVER TO TREAT LOCAL INFECTIONS

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

For Thrush

- If there are thick plaques the caregiver should:
  - Wash hands with soap and water.
  - Wet a clean soft cloth with chlorhexidine 0.2% or salt water, wrap this around the little finger, then gentle wipe away the plaques.
  - Wash hands again.
- Give nystatin 1 ml 4 times a day (after feeds) for 7 days.
- If infant is breastfed,
  - Check mother's breasts for thrush. If present treat mother's breasts with nystatin.
  - Advise mother to wash nipples and areolae after feeds.
- If bottle fed, change to cup and make sure that the caregiver knows how to clean utensils used to prepare and give the milk (p. 22 - 24)

For Chronic Ear Infection, Clear the Ear by Dry Wicking

- Dry the ear at least 3 times daily
  - Roll clean absorbent cloth or soft, strong tissue paper into a wick.
  - Place the wick in the child's ear.
  - Remove the wick when wet.
  - Replace the wick with a clean one and repeat these steps until the ear is dry.
- The ear should not be plugged between dry wicking.

For Mouth Ulcers

- Treat for mouth ulcers 3 - 4 times daily for 5 days:
  - Give paracetamol for pain relief (p. 41) at least 30 minutes before cleaning the mouth or feeding the child.
  - Wash hands.
  - Wet a clean soft cloth with chlorhexidine 0.2% and use it to wash the child's mouth. Repeat this during the day.
  - Wash hands again.
- Advise caregiver to return for follow-up in two days if the ulcers are not improving.

Soothe the Throat, Relieve the Cough with a Safe Remedy

- **Safe remedies to encourage:**
  - Breastmilk
  - If not exclusively breastfed, give warm water or weak tea: add sugar or honey and lemon if available
- **Harmful remedies to discourage:**
  - Herbal smoke inhalation
  - Vicks drops by mouth
  - Any mixture containing vinegar

For Eye Infection

- The caregiver should:
  - Wash hands with soap and water
  - Gently wash off pus and clean the eye with normal saline (or cooled boiled water) at least 4 times a day. Continue until the discharge disappears.
  - Apply chloramphenicol ointment 4 times a day for seven days.
  - Wash hands again after washing the eye.

COUNSEL THE MOTHER OR CAREGIVER ABOUT HOME CARE

1. FEEDING

Counsel the mother to feed her child based on the child's age and findings of feeding assessment (p. 17 - 24)

2. WHEN TO RETURN

Advise caregiver to return immediately if the child has any of these signs:	
Any sick child	➢ Becomes sicker ➢ Not able to drink or breastfeed ➢ Has convulsions ➢ Vomiting everything ➢ Develops a fever
If child has COUGH OR COLD, also return if	➢ Fast breathing ➢ Difficult breathing ➢ Wheezing
If child has DIARRHOEA, also return if	➢ Blood in stool ➢ Drinking poorly

ROUTINE WELL CHILD VISIT

Advise caregiver when to return for next Routine Child visit .

FOLLOW-UP VISIT: Advise caregiver to come for follow-up at the earliest time listed for the

If the child has:	**Return for follow-up in:**
PNEUMONIA DYSENTERY SOME DEHYDRATION - if diarrhoea not improving MALARIA - if fever persists SUSPECTED MALARIA - if fever persists FEVER - OTHER CAUSE - if fever persists MEASLES SUSPECTED MEASLES	2 days
COUGH OR COLD - if no improvement WHEEZE - FIRST EPISODE - if still wheezing NO VISIBLE DEHYDRATION - if diarrhoea not improving PERSISTENT DIARRHOEA ACUTE EAR INFECTION - if pain / discharge persists POSSIBLE STREPTOCOCCAL INFECTION - if symptoms persist FEEDING PROBLEM	5 days
ACUTE SEVERE MALNUTRITION WITH NO MEDICAL COMPLICATIONS MODERATE ACUTE MALNUTRITION FEEDING PROBLEM HIGH RISK OF TB or RISK OF TB	7 days
ACUTE or CHRONIC EAR INFECTION ANAEMIA NOT GROWING WELL - but no feeding problem	14 days
HIV-INFECTION ONGOING HIV EXPOSURE SUSPECTED SYMPTOMATIC HIV HIV EXPOSED TB EXPOSED CONFIRMED or PROBABLE TB	Monthly

3. SUPPORT THE FAMILY TO CARE FOR THE CHILD

- Help the mother, family and caregiver to ensure the child's needs are met.
- Assess any needs of the family and provide or refer for management.

4. COUNSEL THE CAREGIVER ABOUT HER OWN HEALTH

- If the caregiver is sick, provide care for her, or refer her for help.
- Advise the caregiver to eat well to keep up his/her own strength and health.
- Encourage caregiver to grow local foods, if possible, and to eat fresh fruit and vegetables.
- Ensure that the child's birth is registered.
- Where indicated, encourage the caregiver to seek social support services e.g. Child Support Grant.
- Make sure the caregiver has access to:
  - Contraception and sexual health services, including HCT services.
  - Counselling on STI and prevention of HIV-infection.
  - Any other health or social services she requires

5. GIVE ADDITIONAL COUNSELLING IF THE MOTHER OR CAREGIVER IS HIV-POSITIVE

- Encourage disclosure: exclusive breastfeeding and possible ART are very problematic without disclosure.
- Reassure her that with regular follow-up, much can be done to prevent serious illness, and maintain her and the child's health.
- Make sure her CD4 count has been checked and recommend ART if indicated.
- Emphasise the importance of adherence if on ART.
- Emphasise early treatment of illnesses, opportunistic infections or drug reaction.
- Counsel caregiver on eating healthy foods that include protein, fat, carbohydrate, vitamins and minerals.

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 a new problem, assess, classify and treat the new problem as on the ASSESS AND CLASSIFY Chart.**

PNEUMONIA and COUGH or COLD

After 2 days:

- Check the child for general danger signs
- Assess the child for cough or difficult breathing

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

} *See ASSESS & CLASSIFY (p. 26)*

Treatment:

- If there is chest indrawing or a general danger sign, give first dose of ceftriaxone IM. P. 36) Also give first dose cotrimoxazole (p. 39) unless the child is known to be HIV-ve. Then **REFER URGENTLY.**
- If breathing rate, fever and eating are the same, or worse, check if caregiver has been giving the treatment correctly. If yes, **refer.** If she has been giving the antibiotic incorrectly, teach her to give oral medicines at home. Follow-up in 2 days.
- If breathing slower, less fever or eating better, complete 5 days of antibiotic. Remind the caregiver to give one extra meal daily for a week.

WHEEZE - FIRST EPISODE

After 2 days (PNEUMONIA with wheeze), or after 5 days (COUGH OR COLD with wheeze):

- If wheezing has not improved, **refer**.
- If no longer wheezing after 5 days, stop salbutamol. Advise caregiver to re-start salbutamol via spacer if wheezing starts again, and return to clinic immediately if child has not improved within 4 hours.

DIARRHOEA

After 2 days (for some dehydration) or 5 days (for no visible dehydration, but not improving):

- Assess the child for diarrhoea.
- Check if zinc is being given.
- If blood in the stools, assess for dysentery.
- Ask: - Are there fewer stools?
- - Is the child eating better?
- If SOME DEHYDRATION, **refer.**
- If diarrhoea still present, but NO VISIBLE DEHYDRATION, follow- up in 5 days.
- Assess and counsel about feeding (p. 17 - 21).
- Advise caregiver when to return immediately (p. 46).

} *See ASSESS & CLASSIFY (p. 27)*

PERSISTENT DIARRHOEA

After 5 days:

Ask:
- Has the diarrhoea stopped?
- How many loose stools is the child having per day

Assess feeding

Treatment:

- Check if zinc is being given.
- If the diarrhoea has not stopped reassess child, treat for dehydration, then **refer.**
- If the diarrhoea has stopped:
  - Counsel on feeding (p. 18 - 20).
  - Suggest caregiver gives one extra meal every day for one week.
  - Review after 14 days to assess weight gain.

DYSENTERY

After 2 days:

Assess the child for diarrhoea. *See ASSESS & CLASSIFY (p. 27).*

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 general danger sign present, or child sicker, **REFER URGENTLY.**
- If child dehydrated, treat for dehydration, and **REFER URGENTLY.**
- If number of stools, amount of blood, fever or abdominal pain is the same or worse, **refer.**
- If child is better (fewer stools, less blood in stools, less fever, less abdominal pain, eating better), complete 3 days of Ciprofloxacin.
- Give an extra meal each day for a week. (p. 18-20)

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 a new problem, assess, classify and treat the new problem as on the *ASSESS AND CLASSIFY* chart.**

NOT GROWING WELL

After 14 days:

- Weigh the child and determine if the child is still low weight for age.
- Determine weight gain.
- Reassess feeding (p. 18 - 20).

TREATMENT:

- If the child is gaining weight well, praise the caregiver. Review every 2 weeks until GROWING WELL.
- If the child is still NOT GROWING WELL:
  - Check for TB and manage appropriately.
  - Check for HIV infection and manage appropriately.
  - Check for feeding problem. If feeding problem, counsel and follow-up in 5 days.
  - Counsel on feeding recommendations.
- If the child has lost weight or you think feeding will not improve, **refer. Otherwise** review again after 14 days: if child has still not gained weight, or has lost weight, **refer.**

FEEDING PROBLEM

After 5 days:

- Reassess feeding (p. 18 - 20).
- Ask about feeding problems and counsel the caregiver about any new or continuing feeding problems
- If child is NOT GROWING WELL, review after 14 days to check weight gain.

ANAEMIA

After 14 days: Check haemoglobin.

TREATMENT:

- If haemoglobin lower than before, **refer.**
- If haemoglobin the same or higher than before**,** continue iron. Recommend iron rich diet (p. 18). Review in 14 days. Continue giving iron every day for 2 months (p. 42).
- If the haemoglobin has not improved or the child has palmar pallor after one month, **refer.**

SEVERE ACUTE MALNUTRITION WITHOUT MEDICAL COMPLICATIONS or MODERATE ACUTE MALNUTRTION

After 7 days:

- Ask:
  - Is the child feeding well?
  - Is the child is finishing the weekly amount of RUTF?
  - Are there any new problems?
- Look for:
  - General danger signs, medical complications, fever and fast breathing. If present or there is a new problem, assess and classify accordingly.
  - Weight, MUAC, oedema and anaemia
  - Do appetite test (p. 19)

Treatment:

If any one of the following are present, refer:

- Any danger sign, RED or YELLOW CLASSIFICATION or other problem
- The child fails the appetite test
- Poor response as indicated by:
  - oedema
  - weight loss of more than 5% of body weight at any visit or for 2 consecutive visits
  - static weight for 3 consecutive visits
  - failure to reach the discharge criteria after 2 months of outpatient treatment.

If there is no indication for referral:

- Give a weekly supply of RUTF (p. 42)
- Counsel the caregiver on feeding her child (p. 24)
- Give immunisations and routine treatments when due (p. 35)
- Follow-up weekly until stable
- Continue to see the child monthly for at least two months until the child is feeding well and gaining weight regularly or until the child is classified as GROWING WELL**.**

IF ANY MORE FOLLOW-UP VISITS ARE NEEDED BASED ON THE INITIAL VISIT OR THIS VISIT, ADVISE THE CAREGIVER OF THE NEXT FOLLOW-UP VISIT.
ALSO, ADVISE THE CAREGIVER WHEN TO RETURN IMMEDIATELY (p. 46).

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 a new problem, assess, classify and treat the new problem as on the *ASSESS AND CLASSIFY* chart (p. 26).**

FEVER: OTHER CAUSE

If fever persists after 2 days:
Do a full reassessment of the child.

Treatment:

- If the child has any general danger sign or stiff neck or bulging fontanelle, treat for SUSPECTED MENINGITIS (p. 28) and **REFER URGENTLY.**
- If fever has been present for 7 days, assess for TB. (p. 33)
- Treat for other causes of fever.

MALARIA or SUSPECTED MALARIA

If fever persists after 2 days, or returns within 14 days:
- Do a full reassessment of the child.
- Assess for other causes of fever.

Treatment:

- If the child has any general danger signs, bulging fontanelle or stiff neck, treat as SUSPECTED SEVERE MALARIA (p. 28) and **REFER URGENTLY.**
- If malaria rapid test was positive at initial visit and fever persists or recurs, **REFER URGENTLY.**
- If malaria test was negative at the initial visit, and no other cause for the fever is found after reassessment, repeat the test:
  - If malaria test is negative or unavailable, **refer.**
  - If malaria rapid test is positive, treat for malaria.
- Treat for any other cause of fever.

MEASLES

If fever persists after 2 days or caregiver complains of new problems, do a full reassessment (p. 25—35)
Look for mouth ulcers and clouding of the cornea
Check that the child has received two doses of Vitamin A (p. 35)
Check that the necessary specimens have been sent and that contacts have been immunised.

Treatment:

- If child has any danger sign or severe classification, provide pre-referral treatment, and **REFER URGENTLY**.
- If child is still feverish, has mouth or eye complications, DIARRHOEA WITH SOME DEHYDRATION, PNEUMONIA or has lost weight, **refer.**
- If child has improved, advise caregiver to provide home care, including providing an extra meal for one week. Make sure she knows When to Return (p. 15)

EAR INFECTION

Reassess for ear problem. *See ASSESS & CLASSIFY (p. 30).*

Treatment:

- If there is tender swelling behind the ear or the child has a high fever, **REFER URGENTLY.**

ACUTE EAR INFECTION:

After 5 days:

- If ear pain or discharge persists, treat with amoxicillin for 5 more days.
- Continue dry wicking if discharge persists.
- Follow-up in 5 more days.
- After two weeks of adequate wicking, if discharge persists, **refer.**

CHRONIC EAR INFECTION:

After 14 days:

- If some improvement, continue dry wicking, and review in 14 days
- If no improvement, **refer**

POSSIBLE STREPTOCOCCAL INFECTION

After 5 days:

- Assess and monitor dehydration as some children with a sore throat are reluctant to drink or eat due to pain
- Stress the importance of completing 10 days of oral treatment.
- If not improvement, follow-up in 5 more days.
- After 10 days: If symptoms worse or not resolving, **refer.**

GIVE FOLLOW-UP CARE

HIV INFECTION not on ART

ALL CHILDREN LESS THAN FIVE YEARS OF AGE SHOULD BE INITIATED ON ART.

Those older than five years should be assessed for ART eligibility (p. 54). Those meeting the criteria should be initiated on ART. Children who do not meet the criteria should be classified as HIV IN-FECTION not on ART, and should be followed up regularly (at least three monthly).

The following should be provided at each visit:

- Routine child health care: immunisation, growth monitoring, feeding assessment and counselling and developmental screening.
- For all children under five: find out why the child is not on ART and counsel appropriately.
- Cotrimoxazole prophylaxis (p. 39).
- Assessment, classification and treatment of any new problem.
- Ask about the caregiver's health. Provide HCT and treatment if necessary.

Clinical staging and a CD4 count must be done at least six monthly to assess if the child meets the criteria for initiation of ART (p. 54)

SUSPECTED SYMPTOMATIC HIV INFECTION

Children with this classification should be tested, and reclassified on the basis of their test result.

See the child at least once a month. At each visit:

- Provide routine child health care: immunization, growth monitoring, feeding assessment and counselling, and developmental screening.
- Provide Cotrimoxazole prophylaxis from 6 weeks of age (p. 39).
- Assess, classify and treat any new problem.
- Ask about the caregiver's health. Provide HCT and appropriate treatment.

HIV EXPOSED: ON ARV PROPHYLAXIS, ONGOING HIV EXPOSURE or HIV EXPOSED

See the child at least once every month. At each visit provide:

- Routine child health care: immunisation, growth monitoring, and developmental screening.
- Check that the child has been receiving prophylactic ARVs correctly. All infants of HIV-positive mothers should receive nevirapine for at least 6 weeks. Some infants should continue to receive nevirapine for longer or receive zidovudine as well (p. 13). Provide the necessary ARV prophylaxis.
- Support the mother to exclusively breastfeed the infant (p. 21). If the infant is not breastfed, provide counselling on replacement feeding (p. 22-24) and address any feeding problems (p. 20)
- Cotrimoxazole prophylaxis (p. 39).
- Assess, classify and treat any new problem.
- Recheck the child's HIV status according to the HIV testing schedule (box below). Reclassify the child according to the test result., and provide care accordingly.
- Ask about the caregiver's health. Provide counselling, testing and treatment as necessary.

NB: All HIV-exposed infants not on ART should be tested:

- If the child becomes ill or develops symptoms of HIV
- At 6 weeks of age
- At 16 weeks of age if the child received 12 weeks of nevirapine
- At 18 months of age
- 6 weeks after cessation of breastfeeding

Use a rapid HIV test if the child is 18 months or older. For children under 18 months of age, use a PCR test.

GIVE FOLLOW-UP CARE

CONFIRMED or PROBABLE TB (on treatment)

- Follow-up monthly.
- Ensure that the child is receiving regular treatment, ideally as Directly Observed Treatment, 7 days a week. Remember to switch to the continuation phase after two months treatment (p. 40).
- Ask about symptoms and check weight.
- If symptoms are not improving or if the child is not growing well, refer.
- Counsel regarding the need for adherence, and for completing six months treatment.
- Counsel and recommend HIV testing if the child's HIV status is not known.

TB EXPOSURE (on treatment)

- Follow-up monthly.
- Ask about symptoms and check weight.
- If symptoms develop, or if child is not growing well, **refer.**
- Counsel regarding the need for adherence, and for completing six months treatment.
- Ensure that the child is receiving medication, and provide treatment for one month where necessary (p. 39).

Palliative Care for the Child

The decision to provide palliative care only should be made at the referral level. Palliative care includes medication, counselling and support for the child and his family:

- Cotrimoxazole prophylaxis for HIV positive children (p. 39).
- Pain relief
- Routine child care.
- Provide psychosocial support to HIV-positive caregivers and children
- Counsel the caregiver regarding good nutrition, hygiene and management of skin lesions.
- Referral to a community support or home based care group.

INITIATING ART IN CHILDREN: Follow the six steps

STEP 1: DECIDE IF THE CHILD HAS CONFIRMED HIV INFECTION

Child < 18 months:
HIV infection is confirmed if the first positive PCR test is confirmed with a second positive PCR test. Initiate treatment while awaiting the second PCR test result.

Child > 18 months:
Two different rapid antibody tests are positive **OR** one rapid test and an ELISA (Lab) test is positive

- Send outstanding tests.
- If HIV INFECTION is confirmed, move to Step 2.
- In child less than 18 months, proceed to Steps 2 - 6 whilst awaiting second PCR result.
- If the first HIV test is positive and the second test is negative (discordant), REFER

STEP 2: DECIDE IF THE CHILD IS ELIGIBLE TO RECEIVE ART

Children under five years of age
ALL children under five years of age with CONFIRMED HIV INFECTION are eligible to receive ART
Do not wait for CD4 count results to start ART

Children 5 years and older
Stage the child (p. 54)
Record the child's CD4 count
Decide whether the child is eligible based on the eligibility criteria (p. 54)

- If criteria met, move to Step 3.
- If a child who is older than five years does not meet eligibility criteria, classify as HIV INFECTION not on ART, and follow-up (p. 51).

STEP 3: DECIDE IF THE CAREGIVER IS ABLE TO GIVE ART

Check that the caregiver is willing and able to administer ART
The caregiver should ideally have disclosed the child's HIV status to another adult who can assist with providing ART (or be part of a support group)

- If caregiver is able to give ART, move to Step 4.
- If not, classify as HIV INFECTION not on ART, and follow-up regularly (p. 51). Support caregiver and proceed once she is willing and able to give ART.
- If ART needs to be fast-tracked but caregiver not willing or able to administer ART, REFER.

STEP 4: DECIDE IF A NURSE SHOULD INITIATE ART

- Check for the following:
  - General danger signs or any severe classification
  - Child weighs less than 3 kg
  - TB
  - Fast breathing
- If any of these are present, refer to next level of care for ART initiation
- If none present, move to Step 5.

STEP 5: ASSESS AND RECORD BASELINE INFORMATION

- Record the following information
  - Weight and height
  - Head circumference if < 2yrs
  - Assess and classify for Malnutrition and Anaemia
  - Feeding assessment and problems
  - Development
  - Assess and classify for TB risk. (p. 34) Manage as outlined in the TB charts.
  - WHO Clinical Stage

  Laboratory results: Hb or FBC, CD4 count/percentage (if not done in the last 6 months);
  Non-fasting cholesterol + triglycerides (if initiating on Lopinavir/Ritonavir).
- If the child has SEVERE ACUTE MALNUTRITION, SEVERE ANAEMIA (Hb < 7g/dl) or TB refer to the next level of care for initiation of ART.
- If child has POSSIBLE TB, provide follow-up. Refer as described.
- If Hb is 7 g/dl up to 10 g/dl, classify as ANAEMIA and treat (p. 32). Do not delay starting ART.
- Send any outstanding laboratory tests. If the child already meets the criteria for starting ART, do not wait for the results before starting ART.
- Move to Step 6.

STEP 6: START ART

- If the child < 3 years or weighs less than 10 kg, use the regimen on p. 55 - 56
- If the child is 3 years or older, and weighs 10 kg or more, use the regimen on p. 57 - 58
- Remember to give cotrimoxazole (p. 39)
- Give other routine treatments (p. 35)
- Follow-up after one week

NOTE:

- Take note of children who are eligible to be fast-tracked (p. 54)
- Register the child in the Paediatric and Adolescent (Birth to 15 years) Stationery

ELIGIBILITY CRITERIA TO START ART

- All children less than 5 years of age , irrespective of CD4
- Children 5 years to 15 years with WHO clinical stage 3 or 4 or CD4< 500

Require fast-track (i.e. start ART within 7 days of being eligible with attention to social issues, counseling and adherence)

- Children less than 1 year of age
- WHO clinical stage 4
- MDR or XDR-TB infection
- CD4 count <200 or <15%

ADHERENCE PRINCIPLES:

- Very high levels of adherence (> 95%) should be attained for adequate virological response and prevention of viral resistance.
- This can be achieved with regular education and support.
- All efforts to encourage this level of adherence should be made.
- Viral load measurements are useful for monitoring adherence**.**

Adapted WHO Clinical Staging

- All children with CONFIRMED HIV INFECTION must be staged at diagnosis and as part of regular follow-up.
- Children less than five years of age are staged in order to monitor their progress on ART.
- Children older than five years of age, are staged as part of the process of deciding whether to initiate ART. Once ART has been initiated, staging is used to monitor their progress.
- If in doubt, discuss the child with a colleague or refer.

STAGE 1	STAGE 2	STAGE 3	STAGE 4
• No symptoms • Persistent generalised lymphadenopathy	• Unexplained persistent enlarged liver and/or spleen • Unexplained persistent enlarged parotid • Angular cheilitis • Minor mucocutaneous conditions (e.g. chronic dermatitis, fungal nail infections or warts (molluscum contagiosum)) • Recurrent or chronic respiratory tract infections (sinusitis, ear infection, pharyngitis, tonsillitis) • Herpes zoster • Recurrent oral ulcerations	• MODERATE MALNUTRITION which is not responding to standard therapy or stunting (Height for Age z-score between –2 and –3) • Oral thrush (outside neonatal period) • Oral hairy leukoplakia • The following conditions if unexplained and if not responding to standard treatment - Diarrhoea for 14 days or more - Fever for one month or more - Anaemia (Hb < 8 g/dL) for one month or more - Neutropaenia (< 500/mm^3) for one month - Thrombocytopaenia (platelets < 50,000/mm^3) for one month or more • Recurrent severe bacterial pneumonia • Pulmonary TB • TB lymphadenopathy • Symptomatic Lymphoid Interstitial Pneumonitis • Acute necrotising ulcerative gingivitis/periodontitis	• SEVERE MALNUTRITION or severe stunting (Height for Age z-score –3 or less) • Oesophageal thrush • Herpes simplex ulceration for one month or more • Severe multiple or recurrent bacterial infections, two or more episodes in a year (not including pneumonia) • Pneumocystis pneumonia (PCP) • Kaposi sarcoma • Extrapulmonary TB • Toxoplasma • Cryptococcal meningitis • HIV encephalopathy *Note: there are additional WHO Stage 4 conditions that are not listed here, but which may be identified at referral centres.

ART: STARTING REGIMEN FOR CHILDREN LESS THAN 3 YEARS OLD (or < 10kg)

CHILDREN LESS THAN THREE YEARS OLD (or < 10 kg) RECEIVE THREE MEDICINES.

These are:

- Abacavir
- Lamivudine
- Lopinavir/Ritonavir

} See next page

- **REMEMBER: Children who are started on this ARV regimen should continue these ARVs even when they are older than three years OR weigh 10 kg or more i.e. Do not change regimen**
- **REMEMBER to check the child's weight and appropriate dose regularly - the dose will need to increase as the child grows.**

Give Abacavir

Give once or twice daily

- A hypersensitivity (allergic) reaction to Abacavir may occur in a very small number of children. This usually happens in the first six weeks of treatment.
- Common side-effect symptoms (p. 62) include fever and rash (usually raised and itchy)
- Other symptoms include gastrointestinal symptoms (nausea, vomiting, abdominal pain) and respiratory symptoms (dyspnoea, sore throat, cough).
- If the child has at least 2 of the above, do NOT stop medicine but call for advice or refer URGENTLY.
- If a hypersensitivity reaction is confirmed, Abacavir will be stopped.
- A child who has had a hypersensitivity reaction must never be given Abacavir again. Make sure that the reaction is recorded, and that the patient knows that he/she should never take Abacavir again.

WEIGHT	ABACAVIR (choose one option)											
	Solution: 20mg/ml			Tablet: 60mg scored, dispersible						Tablet: 300mg (must be swallowed whole)		
< 3 kg	Consult with expert for neonates (<28 days) and infants weighing < 3kg											
3 – < 5 kg	2 ml twice daily											
5 – < 7 kg	3 ml twice daily											
7 – < 10 kg	4 ml twice daily											
10 – < 14 kg	6 ml twice daily	OR	12 ml once daily	OR	2 tablets twice daily	OR	4 tablets once daily					
14 – < 20 kg	8 ml twice daily	OR	15 ml once daily	OR	2 ½ tablets twice daily	OR	5 tablets once daily			OR	1 tablet once daily	
20 – < 23 kg	10 ml twice daily	OR	20 ml once daily	OR	3 tablets twice daily	OR	1 tablet once daily	PLUS	1 tablet once daily			
23 - <25kg	10 ml twice daily	OR	20 ml once daily	OR	3 tablets twice daily	OR	2 tablets once daily	PLUS	1 tablet once daily			

ART: STARTING REGIMEN FOR CHILDREN LESS THAN 3 YEARS (or < 10kg)

REMEMBER: Lamivudine and Lopinavir/Ritonavir are given with Abacavir (p. 55)

Give Lamivudine

Give once or twice daily

- Lamivudine is very well tolerated.
- Side-effects are minimal but include headache, tiredness, abdominal pain and red cell aplasia.
- If side-effects are mild continue treatment.

WEIGHT	LAMIVUDINE (Choose one option)								
	Solution: 10 mg/ml			Tablet: 150 mg			Tablet: 300 mg		
≤ 3 kg	Consult with expert for neonates (<28 days) and infants weighing < 3kg								
3 – < 5 kg	2 ml twice daily								
5 – < 7 kg	3 ml twice daily								
7 – < 10 kg	4 ml twice daily								
10 – < 14 kg	6 ml twice daily	OR	12 ml once daily						
14 – < 20 kg	8 ml twice daily	OR	15 ml once daily	OR	½ tablet twice daily	OR	1 tablet once daily	OR	
20 – < 25 kg	15 ml twice daily	OR	30 ml once daily	OR	1 tablet twice daily	OR	2 tablets once daily	OR	1 tablet once daily

Give Lopinavir/Ritonavir

Give twice daily ONLY

- The solution should be stored in a fridge or in a cool place if no fridge is available
- Give with food (a high-fat meal is best).
- Tablets must be swallowed whole
- Side-effects include nausea, vomiting and diarrhoea. Continue if these are mild.

WEIGHT	LOPINAVIR/RITONAVIR (Choose one option)							
	Solution: 80/20 mg/ml	Tablets: 100/25 mg		Tablets: 200/50 mg		Tablets: 100/25 mg PLUS 200/50 mg		
< 3 kg	Consult with expert for neonates (<28 days) and infants weighing < 3kg							
3 - < 5 kg	1 ml twice daily							
5 – < 10 kg	1.5 ml twice daily							
10 – < 14 kg	2 ml twice daily							
14 – < 20 kg	2.5 ml twice daily	OR	2 tablets twice daily	OR	1 tablets twice daily			
20 – < 25 kg	3 ml twice daily	OR	2 tablets twice daily	OR	1 tablets twice daily			
25 – < 30 kg	3.5 ml twice daily	OR	3 tablets twice daily	OR	2 tablets morning and 1 tablet evening	OR	One 100/25 mg tablet **PLUS** One 200/50 mg tablet	
30 – < 35 kg	4 ml twice daily	OR	3 tablets twice daily	OR	2 tablets morning and 1 tablet evening	OR	Give both tablets twice daily	
≥ 35	5 ml twice daily	OR			2 tablets twice daily			

ART: STARTING REGIMEN FOR CHILDREN 3 YEARS AND OLDER

CHILDREN THREE YEARS AND OLDER (or ≥10 kg) RECEIVE THREE MEDICINES.

These are:

- Abacavir
- Lamivudine
- Efavirenz

See page 58

- **REMEMBER to check the child's weight and appropriate dose regularly—the dose will need to increase as the child grows.**
- **NOTE: Children who were started on Abacavir, Lamivudine and Lopinavir/Ritonavir should continue these ARVs even when they turn 3 years or older OR weigh > 10 kg or more i.e. Do not change the regimen. They should continue on the regimen that they started.**
- **Switch to tablets or capsules from syrups or solutions as soon as possible.**
- **Use fixed dose combinations in preference to single agents.**
- **If available, use daily dose regimens.**

Give Abacavir

Give once OR twice daily

- A hypersensitivity (allergic) reaction to Abacavir may occur in a very small number of children. This usually happens in the first six weeks of treatment.
- Common side-effect symptoms (p. 62) include fever and rash (usually raised and itchy)
- Other symptoms include gastrointestinal symptoms (nausea, vomiting, abdominal pain) and respiratory symptoms (dyspnoea, sore throat, cough).
- If the child has at least 2 of the above, do NOT stop medicine but call for advice or refer URGENTLY..
- If a hypersensitivity reaction is confirmed, Abacavir will be stopped.
- A child who has had a hypersensitivity reaction must never be given Abacavir again. Make sure that the reaction is recorded, and that the patient knows that he/she should never take Abacavir again.

WEIGHT	ABACAVIR											
	Solution: 20mg/ml				Tablet: 60mg scored, dispersible				Tablet: 300mg (must be swallowed whole)		Tablet: Abacavir/ Lamivudine 600mg/300mg (must be swallowed whole)	
10 - < 14 kg	6 ml twice daily	OR	12 ml once daily	OR	2 tablets twice daily	OR	4 tablets once daily					
14 - < 20 kg	8 ml twice daily	OR	15 ml once daily	OR	2½ tablets twice daily	OR	5 tablets once daily	OR	1 tablet once daily			
20 - < 23 kg	10 ml twice daily	OR	20 ml once daily	OR	3 tablets twice daily	OR	1 tablet once daily	PLUS	1 tablet once daily			
23 - < 25 kg	10 ml twice daily	OR	20 ml once daily	OR	3 tablets twice daily	OR	2 tablets once daily	PLUS	1 tablet once daily			
≥25 kg									1 tablet twice daily **OR** 2 tablets once daily	OR	1 tablet once daily	

ART: STARTING REGIMEN FOR CHILDREN 3 YEARS OLD AND OLDER

REMEMBER: Lamivudine and Efavirenz are given with Abacavir (p. 57)

Give Lamivudine

Give once or twice daily

- Lamivudine is very well tolerated.
- Side-effects are minimal but include headache, tiredness, abdominal pain and red cell aplasia.
- If side-effects are mild continue treatment.
- If the child has severe symptoms, REFER URGENTLY.

WEIGHT	LAMIVUDINE (Choose one option)											
	Solution: 10 mg/ml			Tablet: 150 mg			Tablet: 300 mg		Tablet: Abacavir/ Lamivudine 600mg/300mg (must be swallowed whole)			
≤ 3 kg	Consult with expert for neonates (<28 days) and infants weighing < 3kg											
3 - < 5 kg	2 ml twice daily											
5 - < 7 kg	3 ml twice daily											
7 - < 10kg	4 ml twice daily											
10 - < 14kg	6 ml twice daily	OR	12 ml once daily									
14 - < 20 kg	8 ml twice daily	OR	15 ml once daily	OR	½ tablet twice daily	OR	1 tablet once daily	OR				
20 - < 25 kg	15 ml twice daily	OR	30 ml once daily	OR	1 tablet twice daily	OR	2 tablets once daily	OR	1 tablet once daily			
≥25kg				1 tablet twice daily		OR	2 tablets once daily	OR	1 tablet once daily	OR	1 tablet once daily	

Give Efavirenz

Give once daily at night

- Avoid giving with fatty foods.
- Tablets must be swallowed whole
- Side-effects include skin rash, sleep disturbances and confusion/abnormal thinking. REFER children who develop these symptoms.

WEIGHT	EFAVIRENZ Give medication at night				
	Dose	50 mg capsule or tablet		200 mg capsule or tablet (tablet must be swallowed whole)	600mg tablet (must be swallowed whole)
10 - < 4 kg	200mg			1 capsule/tablet at night	
14 - < 5 kg	300mg	2 capsule/ tablets at night	PLUS	1 capsule/tablet at night	
25 - < 40 kg	400mg			2 capsule/tablets at night	
≥40kg	600mg				1 tablet at night

PROVIDE FOLLOW-UP FOR CHILDREN ON ART

STEP 1: ASSESS AND CLASSIFY

- ASK: Does the child have any problems?
- Has the child received care at another health facility since the last visit?
- Check for General Danger Signs (p. 25)
- Check for ART Danger Signs
  - Severe skin rash
  - Difficulty breathing and severe abdominal pain
  - Yellow eyes
  - Fever, vomiting, rash (only if on abacavir)

} **If present, REFER URGENTLY**

- Check for main symptoms (p. 4–11 or 25–34). Treat and follow-up accordingly.
- Consider (screen for) TB: Assess, classify and manage (p. 34)
  If child has TB, refer to next level of care.

STEP 2: MONITOR PROGRESS ON ART

- Assess and classify for nutrition and Anaemia (p. 31 and 32):
  Record the child's weight, height and head circumference
- Assess development:
  Decide if the child is: developing well, has some delay or is losing milestones
- Assess adherence:(p. 54)
  Ask about adherence and how often, if ever, the child misses a dose.
  Record your assessment.
- Assess drug related side-effects:
  Ask about side-effects. Ask specifically about the side-effects in the table on p. 62
- Assess clinical progress: (p. 54)
  Assess the child's stage of HIV infection
  Compare with the stage at previous visits
- Monitor blood results: (p. 61)
  Record results of tests that have been sent.

IF ANY OF THE FOLLOWING ARE PRESENT, REFER THE CHILD (NON-URGENTLY)

- Not gaining weight for 3 months
- Loss of milestones
- Poor adherence despite adherence counselling
- Significant side-effects despite appropriate management
- Higher Stage than before
- CD4 count significantly lower than before
- Viral load > 1000 copies despite adherence counselling
- Total non-fasting cholesterol higher than 3.5 mmol/L
- TGs higher than 5.6 mmol/L
- Other

Manage mild side-effects (p. 62)
Send tests that are due (p. 61)

STEP 3: PROVIDE ART

- If the child is stable, continue with the regimen.
- Remember to check doses—these will need to increase as the child grows.
- If the child is on Stavudine:
  - Switch Stavudine to Abacavir if the Viral Load is undetectable or less than 50 copies/mL.
  - Do not wait for Stavudine side-effect to switch to Abacavir
- If VL is between 50 -1000 copies/mL, consult with expert for advice or REFER
- If VL is >1000 copies/mL refer child to be managed for treatment failure

STEP 4: PROVIDE OTHER HIV TREATMENTS

- Provide cotrimoxazole prophylaxis (p. 39)

REMEMBER cotrimoxazole can be stopped once the child has been stable on ART for at least six months, the immune system is fully reconstituted and the child is > 1 year of age (i.e. child 1 to 5 years of age: CD4 > 25%, or child > 5 years of age: CD4 >350 cells on 2 tests at least 3-6 months apart).

STEP 5: PROVIDE ROUTINE CARE

- Check that the child's immunizations are up to date (p. 35)
- Provide Vitamin A and deworming if due (p. 35)

STEP 6: COUNSEL THE CAREGIVER

- Use every visit to educate and provide support to the caregiver .
- Key issues to discuss include:
  How the child is progressing, feeding, adherence, side-effects and correct management, disclosure (to others and to the child), support for the caregiver, access to CSG and other grants
- Remember to check that the caregiver and other family members are receiving the care that they need.

STEP 7: ARRANGE FOLLOW-UP CARE

- If the child is well, make an appropriate follow-up date in 1-3 months time, taking into account repeat medication, blood results and clinical check ups.
- If there are any problems, follow-up more frequently.

Children on Stavudine

Give twice daily

- Change Stavudine to Abacavir if the viral load is undetectable or less than 50 copies/mL.
- Do not wait for Stavudine side effects to switch to Abacavir
- If VL is detectable REFER to the next level of care
- Side effects include lactic acidosis, peripheral neuropathy and lipoatrophy
- Refer children with severe vomiting and severe abdominal pain (URGENTLY), or with tingling or numbness of hands or feet (non-urgently).
- Ask about and look for changes in appearance, especially thinness around the face and temples and excess fat around the tummy and shoulders.

WEIGHT	STAVUDINE		
	15 mg capsule	**20 mg capsule**	**30 mg capsule**
5 - < 7 kg	One capsule in 5 ml of water. Give only 2.5 ml. Give twice daily		
7 - < 10 kg		One capsule in 5 ml of water. Give only 2.5 ml. Give twice daily	
10 - < 14 kg	One capsule in 5 ml of water Give twice daily		
14 - < 25 kg		One capsule in 5 ml of water Give twice daily	
25 - < 40 kg			One capsule twice daily

Give other ARVs

- Children on Stavudine should also be on at least two other ARVs, usually Lamivudine and Lopinavir/Ritonavir (p. 56) OR Lamivudine and Efavirenz (p. 58).
- Make sure that children receive the correct dosages of all the ARVs they are on.

Routine laboratory tests

- Laboratory tests that should be routinely sent are shown in the table below.
- Always make sure that the results are correctly recorded in the child's records and Paediatric and Adolescent Stationery.
- Make sure that you act on the tests: if you are unsure discuss the test results with a colleague or refer the child.

Test	When should it be done
CD4 count and percentage	➢ At initiation ➢ After 12 months on ART ➢ Then every 12 months thereafter
Viral Load (VL)	**5 years of age:** ➢ After 6 months on ART ➢ Six months later (i.e. after 12 months on ART). ➢ Then every 12 months thereafter **5 to 15 years of age :** ➢ After 6 months on ART ➢ Then every 12 months thereafter
Hb or FBC	➢ At initiation (if not performed in last 6 months) ➢ If less than 8 g/dl refer to next level of care for initiation. ➢ At month 1, 2, 3 ➢ Then annually if on AZT.
Non-fasting total cholesterol and triglycerides	**Only for children on lopinavir/ritonavir** ➢ At initiation ➢ After 12 months on ART ➢ Then every 12 months thereafter.

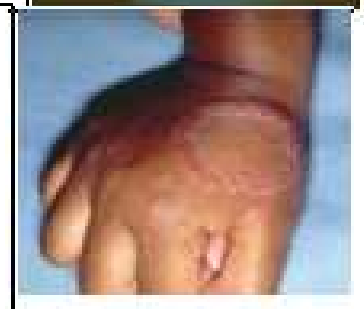
Viral load (VL)	Response
Lower than detectable limits (LDL) or less than 50 copies/mL	➢ Praise the patient and caregiver(s) ➢ Continue VL monitoring according to normal schedule. ➢ Continue routine follow up and adherence support
< 400 copies/mL	➢ The child should receive routine follow-up and support ➢ Repeat VL according to the normal schedule . ➢ Continue routine follow up and adherence support
400 - 1 000 copies/mL	➢ Begin step up adherence package. ➢ Repeat VL in 6 months. ➢ Thereafter monitor VL according to normal schedule if adherence is effective
>1 000 copies/mL	➢ Begin step-up adherence package. ➢ Repeat VL in 3 months: - If < 400: return to routine 6–12 monthly monitoring. - If 400 - 1 000: continue step up adherence and repeat VL after 6 months thereafter return to routine monitoring if adherence is effective - If > 1 000 despite stepped up adherence, the child should be referred to a treatment centre.

SIDE EFFECTS OF ARVs

SIGNS/SYMPTOMS	Management
Yellow eyes (jaundice) or abdominal pain	Stop medicines and REFER URGENTLY.
Rash	If on Abacavir, assess carefully. Are there any signs & symptoms of Abacavir hypersensitivity: Is there any fever, nausea, vomiting, diarrhoea or abdominal pain? Is there generalized fatigue or achiness? Is there any shortness of breath, cough or pharyngitis? If the child has at least 2 of the above, do NOT stop medicine but call for advice or refer URGENTLY. If on Efavirenz or Nevirapine: If the rash is severe and associated with symptoms such as fever, vomiting, oral lesions, blistering, facial swelling, conjunctivitis and skin peeling, STOP all mediciness and refer URGENTLY. If the rash is mild to moderate, with no systemic symptoms; the medicine can be continued with no interruption but under close observation.
Nausea and vomiting	Advise that the medicines should be given with food. If persists for more than 2 weeks or worsens, call for advice or refer. If vomiting everything, or vomiting associated with severe abdominal pain or difficult breathing, REFER URGENTLY.
Diarrhoea	Assess, classify and treat using diarrhoea charts (p. 5, 27, 43-44). Reassure caregiver that if due to ARV, it will improve in a few weeks. Follow-up as per Chart Booklet (p. 48). If not improved after two weeks, call for advice or refer.
Fever	Assess, classify and manage according to Fever Chart (p. 4, 28).
Headache	Give paracetamol (p. 41). If on efavirenz, reassure that this is common and usually self-limiting. If persists for more than 2 weeks or worsens, call for advice or refer.
Sleep disturbances, nightmares, anxiety	This may be due to efavirenz. Give at night; counsel and support (usually lasts less than 3 weeks). If persists for more than 2 weeks or worsens, call for advice or refer.
Tingling, numb or painful feet/legs	If new or worse on treatment, call for advice or refer.
Changes in fat distribution	Ask about and look for changes in appearance, especially thinness around the face and temples and excess fat around the tummy and shoulders. If child on Stavudine: Substitute stavudine with abacavir if VL is less than 50 copies/mL. If VL is greater than 50 copies/mL or if the child is not on stavudine, REFER. If child develops enlarged breasts (lipomastia) which is severe and/or occurs before puberty, REFER.

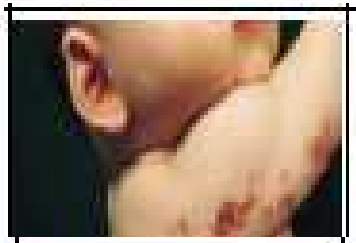
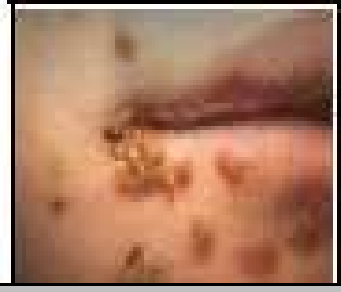
IDENTIFY SKIN PROBLEMS

➢ IF SKIN IS ITCHING

LOOK	SIGNS	CLASSIFY	TREAT	FEATURES IN HIV INFECTION
	• Itching rash with small papules and scratch marks. • Dark spots with pale centres	**PAPULAR PRURITIC ERUPTION**	➢ Apply calamine lotion ➢ Give oral antihistamine ➢ If not improving apply hydrocortisone acetate 1% ➢ Assess and classify for HIV (p. 33)	• Is a clinical stage 2 defining case (p. 54)
	• An itchy circular lesion with a raised edge and fine scaly area in the centre with loss of hair. May also be found on body or web on feet	**RINGWORM (TINEA)**	➢ Apply Imidazole (e.g. clotrimazole 2% cream) three times daily for two weeks ➢ Wash and dry skin well ➢ Avoid sharing clothes, towels and toiletries (e.g. brushes and combs)	• Extensive: there is a high incidence of co-existing nail infection which has to be treated adequately to prevent recurrence of tinea infections of skin • Fungal nail infection is a clinical stage 2 defining disease (p. 54)
	Rash and excoriations on torso; burrows in web space and wrists. Face spared	**SCABIES**	➢ All close contacts should be treated simultaneously (even if not itchy) ➢ Cut finger nails and keep them clean ➢ Wash all bedding and underwear in hot water ➢ Put on clean clothes after treatment ➢ Expose all bedding to direct sunlight ➢ Apply sulphur ointment daily for three days ➢ Do not continue if rash or swelling develops ➢ Avoid contact with eyes, broken skin or sores ➢ Treatment may need to be repeated after one week (itching may continue for 2—3 weeks after treatment)	• In HIV positive children, scabies may manifest as crust scabies • Crusted scabies present as extensive areas of crusting mainly on the scalp, face, back and feet • Patients may not complain of itching

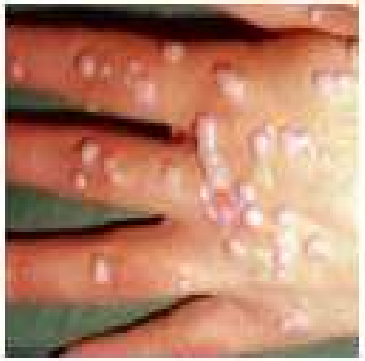
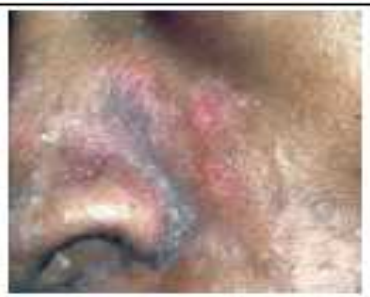
IDENTIFY SKIN PROBLEMS

➢ IF SKIN HAS BLISTERS/SORES/PUSTULES

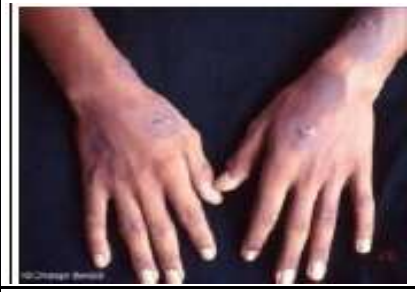
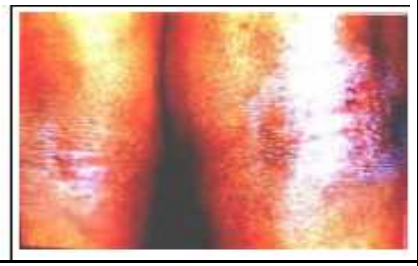
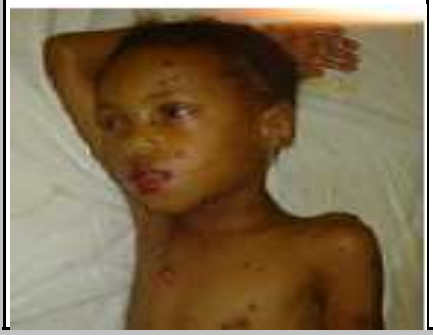
LOOK	SIGNS	CLASSIFY	TREAT	FEATURES IN HIV INFECTION
	• Vesicle over body • Vesicles appear progressively over days and forms scabs after they rupture	**CHICKEN POX**	**Treat itching** ➢ Apply calamine lotion ➢ In severe cases, give an oral anti-histamine (see EDL for doses) ➢ **Refer urgently if Pneumonia or jaundice appear (see p. 4, 26)**	• Presentation atypical only if child is immuno-compromised • May last longer • Complications more frequent • Chronic infection with continued appearance of new lesions for >1 month; • Typical vesicles evolve into non-healing ulcers that become necrotic and crusted
	• Vesicles in one area on one side of body with intense pain or scars plus shooting pain. • They are uncommon in children except when they are immune-compromised	**HERPES ZOSTER**	➢ Keep lesions clean and dry ➢ Use local antiseptic ➢ If eye involved give acyclovir 20 mg/kg 4 times daily for five (5) days ➢ Give pain relief (p. 41) ➢ Follow up in 7 days:	• Duration of disease longer • Haemorrhagic vesicles, necrotic ulceration • Rarely recurrent, disseminated or multidermatomal • **Is a clinical stage 2 defining disease (p. 54)**
	• Red, tender, warm crusts or small lesions	**IMPETIGO**	➢ Clean sores with antiseptic ➢ Drain pus if fluctuant ➢ Give amoxicillin if size > 4 cm or red streaks or tender nodes or multiple abscesses for 5 days (p. 36) ➢ **Refer urgently if child has fever and or if infection extends to the muscles**	

IDENTIFY SKIN PROBLEMS

➢ NON-ITCHY

LOOK	SIGNS	CLASSIFY	TREAT	FEATURES IN HIV INFECTION
	• Skin colored pearly white papule with a central umblication. • It is most commonly seen on the face and trunk in children	**MOLLUSCUM CONTAGIOSUM**	➢ Allow to heal spontaneously if few in number. ➢ Apply tincture of iodine BP to the core of individual lesions using an applicator ➢ Refer for cryotherapy with liquid nitrogen if extensive.	• Incidence is higher • More than 100 lesions may be seen • Lesions often chronic and difficult to eradicate • **Extensive molluscum contagiosum indicates Stage II HIV disease (p. 54).**
	• Appears as papules or nodules with a rough surface	**WARTS**	➢ May be left alone to wait for improvement ➢ Apply podophyllum resin 20% and salicylic acid 25% ointment to wart and cover with a plaster nightly ➢ Protect surrounding skin with pretroluem jelly ➢ Repeat treatment until wart falls off. ➢ Refer if extensive	• Lesions are numerous and recalcitrant to therapy • **Extensive viral warts is a clinical stage 2 defining disease (p. 54)**
	• Greasy scales and redness on central face, body folds	**SEBORRHOEIC DERMATITIS**	➢ For dermatitis: Apply hydrocortisone 1% cream time twice daily until improved ➢ For scalp itching, scaling and dandruff: wash hair and scalp weekly with selenium suphide 2% suspension. Apply, lather and rinse off after ten minutes. ➢ If severe, REFER	• May be severe in HIV infection • Secondary infection may occur.

CLINICAL REACTION TO MEDICINES

LOOK	SIGNS	CLASSIFY	TREAT	FEATURES IN HIV INFECTION
	• Generalised red, wide spread with small bumps or blisters OR • One or more dark skin areas (fixed drug reaction)	**FIXED DRUG REACTION**	➢ Stop medication ➢ Give oral antihistamine ➢ **Then REFER**	• Could be a sign of reactions to ARVs (See also p. 62)
	• Wet, oozing sores or excoriated, thick patches	**ECZEMA**	➢ Soak sores with clean water to remove crusts (no soap) ➢ Dry skin gently ➢ Short term use of topical steroid cream - do not use on face ➢ Treat itching	• Lesions are numerous and recalcitrant to therapy
	• Severe reaction due to cotrimoxazole or NVP • Lesions involve 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 reactions are to NVP, Cotrimoxazole or Efavirenz (p. 62)