Integrated Management of Childhood Illness for High HIV Settings

Chart Booklet

World Health Organization

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Integrated Management of Childhood Illness for High HIV Settings

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The generic IMCI chart booklet was developed and published in 1995 based on evidence existing at that time (Reference: Integrated management of Childhood Illness Adaptation Guide: C. Technical basis for adapting clinical guidelines, 1998). New evidence on the management of acute respiratory infections, diarrhoeal diseases, malaria, ear infections and infant feeding, published between 1995 and 2004, was summarized in the document "Technical updates of the guidelines on IMCI : evidence and recommendations for further adaptations, 2005".

Evidence reviews supported the formulation of recommendations in each of these areas (see document and the references). Reviews were usually followed by technical consultations where the recommendations and their technical bases were discussed and consensus reached. Similarly, a review and several expert meetings were held to update the young infant section of IMCI to include "care of the newborn in the first week of life". More recently, findings of a multi-centre study (Lancet, 2008) led to the development of simplified recommendations for the assessment of severe infections in the newborn.

The chart booklet for high HIV settings is different because it includes sections on paediatric HIV care. The changes made in this edition are based on the new recommendations for paediatric ART following a technical consultation " Report of the WHO Technical Reference Group, Paediatric HIV/ART Care Guideline Group Meeting WHO Headquarters, Geneva, Switzerland,10-11 April 2008; as well as several meetings of the WHO paediatric ART Working Group.

The following experts were involved in the development of the updated newborn recommendations: Z. Bhutta, A. Blaise, W. Carlo, R. Cerezo, M.Omar, P. Mazmanyan, MK Bhan, H.Taylor, G.Darmstadt, V. Paul, A. Rimoin, L.Wright and WHO staff from Regional and Headquarter offices. Dr. Gul Rehman and a team of CAH staff members drafted the updated chart booklet based on the above. Dr Antonio Pio did the technical editing of the draft IMCI chart booklet, in addition to participating in its peer-review. Other persons who reviewed the draft chart booklet and provided comments include A. Deorari, T. Desta,, A.Kassie, D.P. Hoa, H.Kumar, V. Paul and S. Ramzi.. Their contributions are acknowledged.

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None of the above experts declared any conflict of interest.

The Department plans to review the need for an update of this chart booklet by 2011.

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

TREAT THE CHILD

COUNSEL THE MOTHER

ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT AGED UP TO 2 MONTHS

RECORDING FORMS:

Child aged 2 months upto 5 years assess and classify the sick child

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

ASSESS

Ask the mother what the child's problems are Determine whether this is an initial or follow-up visit for this problem. If follow-up visit, use the follow-up instructions on *TREAT THE CHILD* chart if initial visit, assess the child as follows:

▶ Check for general danger signs

ASK:	***LOOK:***
❖ Is the child able to drink or breastfeed? ❖ Does the child vomit everything? ❖ Has the child had convulsions?	❖ See if the child is lethargic or unconscious. ❖ Is the child convulsing now?

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

▶ Then ask about main symptoms:

■ *Does the child have cough or difficult breathing?*

IF YES, ASK:	***LOOK, LISTEN, FEEL:***	
❖ For how long?	❖ Count the breaths in one minute. ❖ Look for chest indrawing. ❖ Look and listen for wheezing.	} Child must be calm
	If wheezing and either fast breathing or chest indrawing: *Give a trial of rapid acting inhaled bronchodilator for up to three times 15–20 minutes apart. Count the breaths and look for chest indrawing again, and then classify.*	

Classify COUGH or DIFFICULT Breathing

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

CLASSIFY IDENTIFY TREATMENT

Use all boxes that match the child's symptoms and problems to classify the illness.

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Any general danger sign or • Chest indrawing or • Stridor in calm child	**SEVERE PNEUMONIA OR VERY SEVERE DISEASE**	• ***Give first dose of an appropriate antibiotic*** • ***Refer URGENTLY to hospital***
• Fast breathing	**PNEUMONIA**	• ***Give oral antibiotic for 5 days*** • If wheezing (even if it disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for 5 days* • Soothe the throat and relieve the cough with a safe remedy • If coughing for more than 3 weeks or if having recurrent wheezing, refer for assessment for TB or asthma • Advise the mother when to return immediately • Follow up in 2 days
• No signs of pneumonia or very severe disease	**COUGH OR COLD**	• If wheezing (even if it disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for 5 days* • Soothe the throat and relieve cough with a safe remedy • If coughing for more than 3 weeks or if having recurrent wheezing, refer for assessment for TB or asthma • Advise mother when to return immediately • Follow up in 5 days if not improving

** In settings where inhaler is not available, oral salbutamol may be the second choice*

■ *Does the child have diarrhoea?*

IF YES, ASK:	***LOOK AND FEEL:***
❖ For how long?	❖ Look at the child's general condition. Is the child: – Lethargic or unconscious? – Restless and irritable?
❖ Is there blood in the stool?	❖ Look for sunken eyes. ❖ Offer the child fluid. Is the child: – Not able to drink or drinking poorly? – Drinking eagerly, thirsty? ❖ Pinch the skin of the abdomen. Does it go back: – Very slowly (longer than 2 seconds)? – Slowly?

Classify Diarrhoea

for DEHYDRATION

and if diarrhoea for 14 days or more

and if blood in stool

If referral is not possible, manage the child as described in **Integrated Management of Childhood Illness, Treat the Child,*

Annex: Where Referral Is Not Possible, and WHO guidelines for inpatient care.

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
Two of the following signs: • Lethargic or unconscious • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very slowly.	**SEVERE DEHYDRATION**	• If child has no other severe classification: – Give fluid for severe dehydration (Plan C) OR ***If child also has another severe classification:*** – ***Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way Advise the mother to continue breastfeeding*** • If child is 2 years or older and there is cholera in your area, give antibiotic for cholera
Two of the following signs: • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly	**SOME DEHYDRATION**	• Give fluid, zinc supplements and food for some dehydration (Plan B) • ***If child also has a severe classification:*** – ***Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way Advise the mother to continue breastfeeding*** • Advise mother when to return immediately • Follow-up in 5 days if not improving. *Yellow*
Not enough signs to classify as some or severe dehydration	**NO DEHYDRATION**	• Give fluid, zinc supplements and food to treat diarrhoea at home (Plan A) • Advise mother when to return immediately • Follow-up in 5 days if not improving.
• Dehydration present	**SEVERE PERSISTENT DIARRHOEA**	• Treat dehydration before referral unless the child has another severe classification • Refer to hospital
• No dehydration	**PERSISTENT DIARRHOEA**	• Check for HIV Infection • Advise the mother on feeding a child who has PERSISTENT DIARRHOEA • Give multivitamins and minerals including zinc for 14 days • Follow up in 5 days
• Blood in the stool	**DYSENTERY**	• ***Give ciprofloxacin for 3 days*** • Follow-up in 2 days

■ *Does the child have fever?*

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

IF YES:

Decide Malaria Risk: high or low

THEN ASK:

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

LOOK AND FEEL:

- ❖ Look or feel for stiff neck.
- ❖ Look for runny nose.

Look for signs of MEASLES

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

Classify FEVER

High Malaria Risk

Low Malaria Risk

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
HIGH MALARIA RISK		
• Any general danger sign or • Stiff neck.	**VERY SEVERE FEBRILE DISEASE**	• ***Give quinine for severe malaria (first dose)*** • ***Give first dose of an appropriate antibiotic*** • ***Treat the child to prevent low blood sugar*** • ***Give one dose of paracetamol in clinic for high fever (38.5°C or above)*** • ***Refer URGENTLY to hospital***
• Fever (by history or feels hot or temperature 37.5°C** or above)	**MALARIA**	• ***Give antimalarial*** • Give one dose of paracetamol in clinic for high fever (38.5°C or above) • Advise mother when to return immediately • Follow-up in 2 days if fever persists • If fever is present every day for more than 7 days, refer for assessment
LOW MALARIA RISK		
• Any general danger sign or • Stiff neck	**VERY SEVERE FEBRILE DISEASE**	• ***Give quinine for severe malaria (first dose) unless no malaria risk*** • ***Give first dose of an appropriate antibiotic*** • ***Treat the child to prevent low blood sugar*** • ***Give one dose of paracetamol in clinic for high fever (38.5°C or above)*** • ***Refer URGENTLY to hospital***
• NO runny nose and • NO measles and • NO other cause of fever	**MALARIA**	• ***Give antimalarial*** • Give one dose of paracetamol in clinic for high fever (38.5°C or above) • Advise mother when to return immediately • Follow-up in 2 days if fever persists • If fever is present every day for more than 7 days, refer for assessment
• Runny nose PRESENT or • Measles PRESENT or • Other cause of fever PRESENT	**FEVER - MALARIA UNLIKELY**	• Give one dose of paracetamol in clinic for high fever (38.5°C or above) • Advise mother when to return immediately • Follow-up in 2 days if fever persists • If fever is present every day for more than 7 days, refer for assessment

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

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

IF YES:

Decide Malaria Risk: high or low

THEN ASK:	***LOOK AND FEEL:***
If the child has measles now or within the last 3 months:	❖ Look for mouth ulcers. Are they deep and extensive? ❖ Look for pus draining from the eye. ❖ Look for clouding of the cornea.

if MEASLES now or within last 3 months,

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Any general danger sign or • Clouding of cornea or • Deep or extensive mouth ulcers	**SEVERE COMPLICATED MEASLES*** **	• ***Give Vitamin A treatment*** • ***Give first dose of an appropriate antibiotic*** • ***If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment*** • ***Refer URGENTLY to hospital***
• Pus draining from the eye or • Mouth ulcers	**MEASLES WITH EYE OR MOUTH COMPLICA-TIONS*** **	• ***Give Vitamin A treatment*** • If pus draining from the eye, treat eye infection with tetracycline eye ointment • If mouth ulcers, treat with gentian violet • Follow-up in 2 days.
• Measles now or within the last 3 months	**MEASLES**	• ***Give Vitamin A treatment***

■ *Does the child have an ear problem?*

IF YES, ASK:	*LOOK AND FEEL:*	*Classify*
❖ Is there ear pain?	❖ Look for pus draining from the ear.	***EAR PROBLEM***
❖ Is there ear discharge? If yes, for how long?	❖ Feel for tender swelling behind the ear.	

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Tender swelling behind the ear.	**MASTOIDITIS**	• ***Give first dose of an appropriate antibiotic.*** • ***Give first dose of paracetamol for pain.*** • ***Refer URGENTLY to hospital.***
• Pus is seen draining from the ear and discharge is reported for less than 14 days, or • Ear pain.	**ACUTE EAR INFECTION**	• ***Give an antibiotic for 5 days.*** • Give paracetamol for pain. • Dry the ear by wicking. • If ear discharge, check for HIV Infection. • Follow-up in 5 days.
• Pus is seen draining from the ear and discharge is reported for 14 days or more.	**CHRONIC EAR INFECTION**	• Dry the ear by wicking. • Treat with topical quinolone eardrops for 2 weeks. • Check for HIV Infection. • Follow-up in 5 days.
• No ear pain and No pus seen draining from the ear.	**NO EAR INFECTION**	• No treatment.

▶ Then check for malnutrition and anaemia

Check for Malnutrition

LOOK AND FEEL: ❖ Look for visible severe wasting ❖ Look for oedema of both feet ❖ Determine weight for age	**CLASSIFY NUTRITIONAL STATUS**

Check for Anaemia

LOOK and FEEL: ❖ Look for palmar pallor. Is it: - Severe palmar pallor? - Some palmar pallor?	**CLASSIFY ANAEMIA**

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Visible severe wasting or • Oedema of both feet	**SEVERE MALNUTRITION**	• ***Treat the child to prevent low sugar*** • ***Refer URGENTLY to a hospital or a therapeutic feeding programme***
• Very low weight for age	**VERY LOW WEIGHT**	• Assess the child's feeding and counsel the mother on feeding according to the feeding recommendations • Check for HIV infection • Advise mother when to return immediately • Follow-up in 30 days
• Not very low wight for age and no other signs of malnutrition	**NOT VERY LOW WEIGHT**	• If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the feeding recommendations – If feeding problem, follow-up in 5 days • Advise mother when to return immediately

• Severe palmar pallor	**SEVERE ANAEMIA**	• ***Refer URGENTLY to hospital***
• Some palmar pallor	**ANAEMIA**	• Give iron • Give oral antimalarial if high malaria risk • Check for HIV infection • Give mebendazole if child is 1 year or older and has not had a dose in the previous six months • Advise mother when to return immediately • Follow up in 14 days
• No palmar pallor	**NO ANAEMIA**	If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the feeding recommendations • If feeding problem, follow-up in 5 days

▶ Then check for HIV infection*

❖ Has the mother or child had an HIV test?

OR

❖ Does the child have one or more of the following conditions?:

- Pneumonia **
- Persistent diarrhoea **
- Ear discharge (acute or chronic)
- Very low weight for age**

If yes to one of the two questions above, enter the box below and look for the following conditions suggesting HIV infection:

NOTE OR ASK:	***LOOK and FEEL:***
❖ PNEUMONIA ?	❖ Oral thrush
❖ PERSISTENT DIARRHOEA?	❖ Parotid enlargement
❖ EAR DISCHARGE?	❖ Generalized persistent lymphadenopathy
❖ VERY LOW WEIGHT?	

HIV test result available for mother/child?

CLASSIFY

HIV status of mother and child unknown

HIV status of mother and/or child known

** A child who has already been put on ART does not need to be assessed with this HIV box.*
*** Includes severe forms such as severe pneumonia. In the case of severe forms, complete assessment quickly and refer child URGENTLY.*

SIGNS	CLASSIFY	IDENTIFY TREATMENTS
• 2 or more conditions AND • No test results for child or mother	**SUSPECTED SYMPTOMATIC HIV INFECTION**	• Treat, counsel and follow-up existing infection • Give co-trimoxazole prophylaxis • Give Vitamin A supplements from 6 months of age every 6 months • Assess the child's feeding and provide appropriate counselling to the mother • Test to confirm HIV infection • Refer for further assessment including HIV care/ART • Follow-up in 14 days, then monthly for 3 months and then every 3 months or as per immunization schedule
• Less than 2 conditions AND • No test result for child or mother	**SYMPTOMATIC HIV INFECTION UNLIKELY**	• Treat, counsel and follow-up existing infections • Advise the mother about feeding and about her own health • Encourage HIV testing
• Positive HIV antibody test for child 18 months and above OR • Positive HIV virological test	**CONFIRMED HIV INFECTION**	• Treat, counsel and follow-up existing infections • Give co-trimoxazole prophylaxis • Give Vitamin A supplement from 6 months of age every 6 months • Assess the child's feeding and provide appropriate counselling to the mother • Refer for further assessment including HIV care/ART • Follow-up in 14 days, then monthly for 3 months and then every 3 months or as per immunization schedule
One or both of the following: • Mother HIV positive and no test result for child OR • Child less than 18 months with positive antibody test	**HIV EXPOSED/ POSSIBLE HIV**	• Treat, counsel and follow-up existing infections • Give co-trimoxazole prophylaxis • Give Vitamin A supplements from 6 months of age every 6 months • Assess the child's feeding and provide appropriate counselling to the mother • Confirm HIV infection status of child as soon as possible with best available test • Follow-up in 14 days, then monthly for 3 months and then every 3 months or as per immunization schedule**
• Negative HIV test in mother or child AND not enough signs to classify as suspected symptomatic HIV infection	**HIV INFECTION UNLIKELY**	• Treat, counsel and follow-up existing infections • Advise the mother about feeding and about her own health

▶ Then check the child's immunization, vitamin a and deworming status

IMMUNIZATION SCHEDULE: Follow national guidelines					
Age	**VACCINE**			**HIV-EXPOSED**	**HIV-INF ECTED**
Birth	BCG	OPV-0		BCG*	NO BCG
6 weeks	DPT+HIB-1	OPV-1	Hep B1	Same	Same
10 weeks	DPT+HIB-2	OPV-2	Hep B2	Same	Same
14 weeks	DPT+HIB-3	OPV-3	Hep B3	Same	Same
9 months	Measles**			Measles at 6 months	Same***
				Repeat at or after 9 months	Same***

VITAMIN A PROPHYLAXIS

Give every child a dose of Vitamin A every six months from the age of 6 months. Record the dose on the child's card.

Same protocol for HIV-exposed and infected children.

ROUTINE WORM TREATMENT

Give every child mebendazole every 6 months from the age of one year. Record the dose on the child's card.

Same protocol for HIV exposed and infected children.

* **BCG should NOT be given** any time after birth to infants known to be HIV infected or born to HIV infected women and HIV status unknown but who have signs or reported symptoms suggestive of HIV infection.

** Second dose of measles vaccine may be given at any opportunistic moment during periodic supplementary immunisation activities as early as one month following the first dose.

*** Measles vaccine is NOT given if child is severely immunocompromised due to HIV infection.

Make sure child with any general danger sign is referred after first dose of an appropriate antibiotic and other urgent treatments.

▶ Assess other problems:

Assess, classify and treat skin and mouth conditions

▶ Mouth ulcer or gum problems

SIGNS	CLASSIFY AS:	TREATMENTS:
• Deep or extensive ulcers of mouth or gums or • Not able to eat	**SEVERE GUM OR MOUTH INFECTION**	• Refer URGENTLY to hospital • If possible, give first dose acyclovir pre-referral. • Start metronidazole if referral not possible. • If child is on antiretroviral therapy this may be a drug reaction so refer to second level for assessment.
• Ulcers of mouth or gums	**GUM / MOUTH ULCERS**	• Show mother how to clean the ulcers with saline or peroxide or sodium bicarbonate. • If lips or anterior gums involved, give acyclovir, if possible. If not possible, refer. • If child receiving cotrimoxazole or antiretroviral drugs or isoniazid (INH) prophylaxis (for TB) within the last month, this may be a drug rash, especially of the child also has a skin rash, so refer. • Provide pain relief. • Follow up in 7 days.

▶ WHO Paediatric Clinical Staging for HIV[1]

Only for confirmed HIV infected children. Determine the clinical stage by assessing the child's signs and symptoms. Look at the classification for each stage and decide which is the highest stage applicable to the child – where one or more of the child's symptoms are represented.

	WHO Paediatric Clinical Stage 1 Asymptomatic	**WHO Paediatric Clinical Stage 2 Mild Disease**
Growth	-	-
Symptoms/signs	**No symptoms or only:** • **Persistent generalized lymphadenopathy**	• Enlarged liver and/or spleen • Enlarged parotid • Skin conditions (prurigo, seborrhoeic dermatitis, extensive molluscum contagiosum or warts, fungal nail infections, herpes zoster) • Mouth conditions (recurrent mouth ulcerations, angular cheilitis, lineal gingival Erythema) • Recurrent or chronic RTI (sinusitis, ear infections, otorrhoea)
ARV Therapy	**Indicated:** • All infants below 12 mo irrespective of CD4 • 12–35 mo and CD4 ≤ 20% (or ≤750 cells) • 36-59 mo and CD4≤20% (or ≤ 350 cells) • 5 yrs and CD4 ≤15% (<200 cells/mm^3)	**Indicated:** Same as stage I

[1] *Note that these are interim recommendations and may be subject to change.*

WHO Paediatric Clinical Stage 3 Moderate Disease	WHO Paediatric Clinical Stage 4 Severe Disease (AIDS)
Moderate unexplained malnutrition not responding to standard therapy	Severe unexplained wasting/ stunting/ Severe malnutrition not responding to standard therapy
• Oral thrush (outside neonatal period) • Oral hairy leukoplakia • Unexplained and unresponsive to standard therapy: – Diarrhoea >14 days – Fever>1 month – Thrombocytopenia* (<50,000/mm^3 for > 1 month) – Neutropenia* (<500/mm^3 for 1 month) – Anaemia for >1 month (haemoglobin < 8 gm)* • Recurrent severe bacterial pneumonia • Pulmonary TB • Lymph node TB • Symptomatic LIP* • Acute necrotizing ulcerative gingivitis/ periodontitis • Chronic HIV associated lung disease including bronchiectasis*	• Oesophageal thrush • More than one month of herpes simplex ulcerations • Severe multiple or recurrent bacterial infections > 2 episodes in a year (not including pneumonia) • Pneumocystis pneumonia (PCP)* • Kaposi's sarcoma • Extrapulmonary tuberculosis • Toxoplasma brain abscess* • Cryptococcal meningitis* • Acquired HIV-associated rectal fistula • HIV encephalopathy*
ART is indicated: • Child is over 12 months—usually regardless of CD4 but if LIP/TB/ oral hairy leukoplakia—ART Initiation may be delayed if CD4 above age related threshold for advanced or severe immunodeficiency	**ART is indicated:** Irrespective of the CD4 count, and should be started as soon as possible. If HIV infection is NOT confirmed in infants<18 months, presumptive diagnosis of severe HIV disease can be made on the basis of **: • HIV antibody positive AND • One of the following: – AIDS defining condition OR – Symptomatic with two or more of : – Oral thrush – Severe pneumonia – Severe sepsis

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

*** in a child with presumptive diagnosis of severe HIV disease, where it is not possible to confirm HIV infection, ART may be initiated.*

▶ HIV testing for the exposed child

RECOMMEND HIV testing for:

- ❖ **All children born to an HIV positive mother**
- ❖ **All sick children with symptomatic suspected HIV infection**
- ❖ **All children brought for child health service in a generalized epidemic setting**

For children >18 months, a positive HIV antibody test result means the child is infected.

For HIV exposed children <18 months of age,

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

If PCR or other virological test is not available, use HIV antibody test.
If the child becomes sick, recommend HIV antibody test.
If the child remains well, recommend HIV antibody test at 9–12 months.
If child >12 months has not yet been tested, recommend HIV antibody test.

Interpreting the HIV antibody test results in a child < 18 months of age		
Test result	**HIV antibody test is positive**	**HIV antibody test is negative**
Not breastfeeding or not breastfed in last 6 weeks	**HIV exposed and /or HIV infected** Manage as if they could be infected. Repeat test at 18 months	**HIV negative** Child is not HIV infected
Breast feeding	**HIV exposed and /or HIV infected** Manage as if they could be infected. Re peat test at 18 months or once breast-feeding has been discontinued for more than 6 weeks	**Child can still be infected by breast-feeding.** Repeat test once breast feeding has been discontinued for more than 6 weeks.

1. The older the child is the more likely the HIV antibody is due to their own infection and not due to maternal antibody.
2. Very exceptionally a very severely sick child who is HIV infected will have HIV antibody test results that are negative. If the clini-cal picture strongly suggests HIV, then virological testing will be needed.

TREAT THE CHILD

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

Teach the mother to give oral drugs at home

Follow the instructions below for every oral drug to be given at home.

Also follow the instructions listed with each drug's dosage table.

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

❖ **Give Co-trimoxazole to Children with Confirmed or Suspected HIV Infection or Children who are HIV Exposed**

- Co-trimoxazole should be given starting at 4–6 weeks of age to :
  - All infants born to mothers who are HIV infected until HIV is definitively ruled out
  - All infants with confirmed HIV infection aged <12 months or those with stage 2,3 or 4 disease or
  - Asymptomatic infants or children (stage 1) if CD4 <25%.
- Give co-trimoxazole once daily.

CO-TRIMOXAZOLE dosage—single dose per day			
Age	**5 ml syrup 40 mg/200 mg**	**Single strength adult tablet 80 mg/ 400 mg**	**Single strength paediatric tablet 20 mg/100 mg**
Less than 6 months	2.5 ml	1/4 tablet	1 tablet
6 months up to 5 years	5 ml	1/2 tablet	2 tablets
5–14 years	10 ml	1 tablet	4 tablets
> 15 years	NIL	2 tablets	-

▶ Give an appropriate oral antibiotic

❖ **For pneumonia, acute ear infection:**

First-line antibiotic: _____

Second-line antibiotic: _____

	CO-TRIMOXAZOLE (trimethoprim/sulphamethoxazole) *Give two times daily for 5 days*			AMOXYCILLIN* *Give two times daily for 5 days*	
AGE or WEIGHT	**ADULT TABLET (80/400mg)**	**PAEDIATRIC TABLET (20/100 mg)**	**SYRUP (40/200 mg/5ml)**	**TABLET (250 mg)**	**SYRUP (125 mg /5 ml)**
2 months up to 12 months (4 - <10 kg)	1/2	2	5.0 ml	3/4	7.5 ml
12 months up to 5 years (10 - 19 kg)	1	3	7.5 ml	1½	15 ml`
*Amoxycillin should be used if there is high co-trimoxazole resistance.					

❖ **For cholera:**

First-line antibiotic for cholera _____

	TETRACYCLINE **Give 4 times daily for 3 days**	**ERYTHROMYCIN** **Give 4 times for 3 days**
AGE or WEIGHT	TABLET 250 mg	TABLET 250 mg
2 years up to 5 years (10–19 kg)	1	1

▶ For dysentery give ciprofloxacin

15mg/kg/day—2 times a day for 3 days

Second-line _____

	250 mg TABLET	**500 mg TABLET**
AGE	DOSE/tabs	DOSE/ tabs
Less than 6 months	1/2 tablet	1/4 tablet
6 months up to 5 years	1 tablet	1/2 tablet

▶ Give pain relief

- ❖ Safe doses of paracetamol can be slightly higher for pain. Use the table and teach mother to measure the right dose
- ❖ Give paracetamol every 6 hours if pain persists
- ❖ **Stage 2 pain** is chronic severe pain as might happen in illnesses such as AIDS:
  - Start treating Stage 2 pain with regular paracetamol
  - In older children, ½ paracetamol tablet can replace 10 ml syrup
  - If the pain is not controlled, add regular codeine 4 hourly
  - For severe pain, morphine syrup can be given

WEIGHT	**AGE** (If you do not know the weight)	**PARACETAMOL** 120mg/ 5mls	**Add CODEINE** 30mg tablet	**ORAL MORPHINE** 5mg/5ml
4 - <6kg	2 months up to 4 months	2 ml	1/4	0.5ml
6 - <10 kg	4 months up to 12 months	2.5 ml	1/4	2ml
10 - <12 kg	12 up to 2 years	5 ml	1/2	3ml
12 - <14 kg	2 years up to 3 years	7.5 ml	1/2	4ml
14 - 19 kg	3 to 5 years	10 ml	3/4	5ml

▶ Give Iron

- ❖ Give one dose daily for 14 days

AGE or WEIGHT	**IRON/FOLATE TABLET** Ferrous sulfate 200 mg + 250 μg Folate (60 mg elemental iron)	**IRON SYRUP** Ferrous fumarate 100 mg per 5 ml (20 mg elemental iron per ml)
2 months up to 4 months (4 – <6 kg)		1.0 ml (< 1/4 tsp)
4 months up to 12 months (6 – <10kg)		1.25 ml (1/4 tsp)
12 months up to 3 years (10 – <14 kg)	1/2 tablet	2.0 ml (<1/2 tsp)
3 years up to 5 years (14 – 19 kg)	1/2 tablet	2.5 ml (1/2 tsp)

▶ Give inhaled salbutamol for wheezing

Use of a spacer*

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

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

Spacers can be made in the following way:

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

To use an inhaler with a spacer:

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

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

▶ Give oral coartem

- ❖ Give the first dose of coartem in the clinic and observe for one hour If child vomits within an hour repeat the dose. 2nd dose at home after 8 hours
- ❖ Then twice daily for further two days as shown below

	Co-artemether tablets (20mg artemether and 120mg lumefantrine)					
WEIGHT (age)	**0hr**	**8h**	**24h**	**36h**	**48h**	**60h**
5–15 kg (<3 years)	1	1	1	1	1	1
15–24 kg (4–8 years)	2	2	2	2	2	2
25–34 kg (9–14 years)	3	3	3	3	3	3
>34 kg (>14 years)	4	4	4	4	4	4

Teach the mother to treat local infections at home

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

▶ Clear the ear by dry wicking and give eardrops*

❖ **Do the following 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
- Instil quinolone eardrops for two weeks

** Quinolone eardrops may contain ciprofloxacin, norfloxacin, or ofloxacin*

▶ Soothe the throat, relieve the cough with a safe remedy

❖ Safe remedies to recommend:

- Breast milk for a breastfed infant

_____

_____

❖ Harmful remedies to discourage:

_____

_____

▶ Treat eye infection with tetracycline eye ointment

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

▶ Treat mouth ulcers with gentian violet (GV)

- ❖ **Treat for mouth ulcers twice daily**
  - Wash hands
  - Wash the child's mouth with a clean soft cloth wrapped around the finger and wet with salt water
  - Paint the mouth with 1/2 strength gentian violet (0.25% dilution)
  - Wash hands again
  - Continue using GV for 48 hours after the ulcers have been cured
  - Give paracetamol for pain relief

▶ Treat Thrush with Nystatin

- ❖ **Treat thrush four times daily for 7 days**
  - Wash hands
  - Wet a clean soft cloth with salt water and use it to wash the child's mouth
  - Instill nystatin 1ml four times a day
  - Avoid feeding for 20 minutes after medication
  - If breastfed check mother's breasts for thrush. If present treat with nystatin
  - Advise mother to wash breasts after feeds. If bottle fed advise change to cup and spoon
  - If severe, recurrent or pharyngeal thrush consider symptomatic HIV (p. 7)
  - Give paracetamol if needed for pain (p.12)

** Quinolone eardrops may contain ciprofloxacin, norfloxacin, or ofloxacin on clear the ear*

Give vitamin A and mebendazole in clinic

- ❖ Explain to the mother why the drug is given
- ❖ Determine the dose appropriate for the child's weight (or age)
- ❖ Measure the dose accurately

▶ Give Mebendazole

- ❖ Give 500 mg mebendazole as a single dose in clinic if:
  - hookworm/whipworm is a problem in your area
  - the child is 1 year of age or older, and
  - has not had a dose in the previous 6 months

▶ Give Vitamin A

Vitamin A Supplementation:

- ❖ Give Vitamin A to all children to **prevent** severe illness:
  - First dose at 6 weeks in a child that is **not** being breastfed
  - First dose in breastfed children to be given any time after 6 months of age
  - Thereafter Vitamin A should be given **every six months** to ALL CHILDREN

Vitamin A Treatment:

- ❖ Give an extra dose of Vitamin A (same dose) for **treatment** if the child has measles or PERSISTENT DIARRHOEA. If the child has had a dose of Vitamin A within the past month, DO NOT GIVE VITAMIN A
- ❖ Always record the dose of Vitamin A given on the child's chart

Age	VITAMIN A DOSE
6 up to 12 months	100 000IU
One year and older	200 000IU

Give these treatments in the clinic only

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

▶ Give an Intramuscular Antibiotic

- Give to children being referred urgently
- Give Ampicillin (50 mg/kg) and Gentamicin (7.5mg/kg)

Ampicilllin

- Dilute 500mg vial with 2.1ml of sterile water (500mg/2.5ml)

Gentamicin

- 7.5mg/kg/day once daily
- IF REFERRAL IS NOT POSSIBLE OR DELAYED, repeat the ampicillin injection every 6 hours
- Where there is a strong suspicion of meningitis the dose of ampicillin can be increased 4 times

AGE	WEIGHT	AMPICILLIN 500 mg vial	Gentamicin 2ml vial/40 mg/ml*
2 up to 4 months	4 – <6kg	1 ml	0.5 – 1.0 ml
4 up to 12 months	6 – <10kg	2 ml	1.1 – 1.8 ml
1 up to 3 years	10 – <15kg	3 ml	1.9 – 2.7 ml
3 up to 5 years	15 – 20kg	5 ml	2.8 – 3.5 ml

** Lower value for lower range of age/weight.*

▶ Give Diazepam to Stop Convulsions

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

WEIGHT	AGE	DOSE OF DIAZEPAM (10mg/2mls)
< 5kg	<6 months	0.5 ml
5 – < 10kg	6 – < 12 months	1.0 ml
10 – < 15kg	1 – < 3 years	1.5ml
15 – 19 kg	4 – < 5years	2.0 ml

▶ Give quinine for severe malaria

For children being referred with very severe febrile disease:

- ❖ Check which quinine formulation is available in your clinic
- ❖ Give first dose of intramuscular quinine and refer child urgently to hospital

If referral is not possible:

- ❖ Give first dose of intramuscular quinine
- ❖ The child should remain lying down for one hour
- ❖ Repeat the quinine injection at 4 and 8 hours later, and then every 12 hours until the child is able to take an oral antimalarial. Do not continue quinine injections for more than 1 week
- ❖ If low risk of malaria do not give quinine to a child less than 4 months of age.

AGE or WEIGHT	INTRAMUSCULAR QUININE	
	150 mg /ml* (in 2 ml)	300 mg /ml* (in 2 ml)
2 months up to 4 months (4 – < 6 kg)	0.4 ml	0.2 ml
4 months up to 12 months (6 – < 10 kg)	0.6 ml	0.3 ml
12 months up to 2 years (10 – < 12 kg)	0.8 ml	0.4 ml
2 years up to 3 years (12 – < 14 kg)	1.0 ml	0.5 ml
3 years up to 5 years (14 – 19 kg)	1.2 ml	0.6 ml

** quinine salt*

▶ Treat the child to prevent low blood sugar

❖ **If the child is able to breastfeed:**
Ask the mother to breastfeed the child

❖ **If the child is not able to breastfeed but is able to swallow:**

- Give expressed breast milk or breast-milk substitute
- If neither of these is available give sugar water
- Give 30–50 ml of milk or sugar water before departure

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

❖ **If the child is not able to swallow:**

- Give 50ml of milk or sugar water by nasogastric tube

Give extra fluid for diarrhoea and continue feeding

▶ Plan A: Treat for Diarrhoea at Home

Counsel the mother on the 4 Rules of Home Treatment:

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

1. ***Give extra fluid*** (as much as the child will take)

❖ **Tell the mother:**

- Breastfeed frequently and for longer at each feed
- If the child is exclusively breastfed, give ORS or clean water in addition to breast milk
- If the child is not exclusively breastfed, give one or more of the following: food-based fluids (such as soup, rice water, and yoghurt drinks), 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 mother how to mix and give ors. Give the mother 2 packets of ors to use at home.**

❖ **Show the mother how much fluid to give in addition to the usual fluid intake:**

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

2 years or more: 100–200 ml after each loose stool

Tell the mother to:

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

2. ***Give zinc*** **(age 2 months up to 5 years)**

❖ **Tell the mother how much zinc to give (20 mg tab):**

2 months up to 6 months —— 1/2 tablet daily for 14 days

6 months or more —— 1 tablet daily for 14 days

❖ **Show the mother how to give zinc supplements**

- Infants—dissolve tablet in a small amount of expressed breast milk, ORS or clean water in a cup
- Older children—tablets can be chewed or dissolved in a small amount of clean water in a cup

3. ***Continue feeding (exclusive breastfeeding if age less than 6 months)***

4. ***When to return***

▶ 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**

AGE*	Up to 4 months	4 months up to 12 months	12 months up to 2 years	2 years up to 5 years
WEIGHT	< 6 kg	6–< 10 kg	10–< 12 kg	12–<20kg
Amount of fluid (ml) over 4 hours	200–450	450–800	800–960	960–1600

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

- If the child wants more ORS than shown, give more
- For infants below 6 months who are not breastfed, also give 100–200ml clean water during this period

❖ **Show the mother how to give ors solution:**

- Give frequent small sips from a cup
- If the child vomits, wait 10 minutes then continue - but more slowly
- Continue breast feeding whenever the child wants

❖ **After 4 hours:**

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

❖ **If the mother must leave before completing treatment:**

- Show her how to prepare ORS solution at home
- Show her how much ORS to give to finish 4-hour treatment at home
- Give her instructions how to prepare salt and sugar solution for use at home
- Explain the 4 Rules of Home Treatment:

1. Give extra fluid

2. Give zinc (age 2 months up to 5 years)

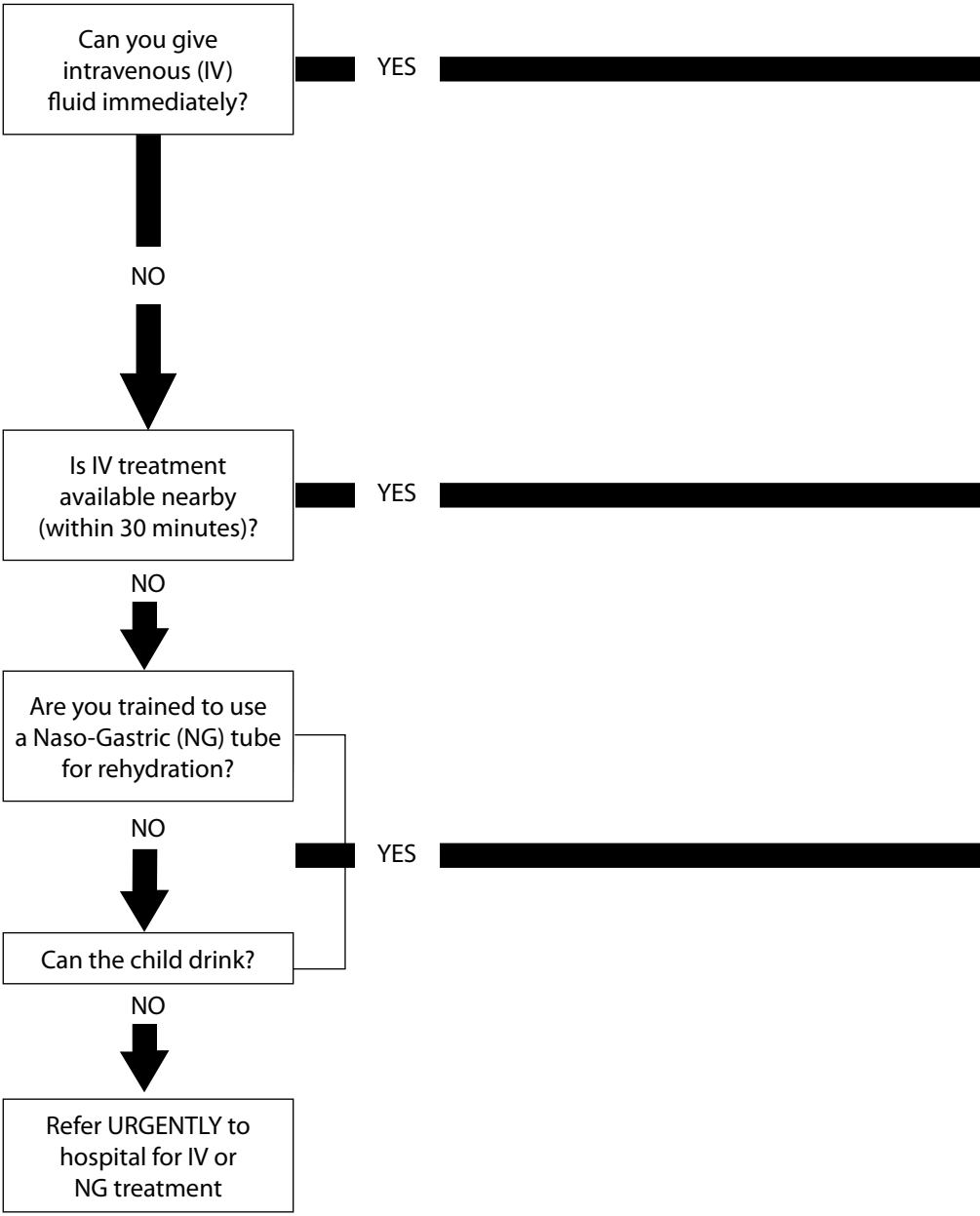
3. Continue feeding (exclusive breast feeding if age less than 6 months)

4. When to return

▶ **NOTE**

▶ Plan C: Treat for Severe Dehydration Quickly

Follow the arrows. If answer is "yes", go across. If "no", go down



❖ **Start IV fluid immediately.**

❖ If the child can drink, give ORS by mouth while the drip is set up.

❖ Give 100 ml/kg Ringer's Lactate Solution (or, if not available, normal saline), divided as follows:

AGE	First give 30ml/kg in:	Then give 70ml/kg in
Infants (under 12 months)	1 hour	5 hours
Children (12 months up to 5 years)	30 minutes	2½ hours

❖ **Reassess the child every 1–2 hours.** If hydration status is not improving, give the IV drip more rapidly.

❖ Also give ORS (about 5 ml/kg/hour) as soon as the child can drink: usually after 3–4 hours (infants) or 1–2 hours (children).

❖ Reassess an infant after 6 hours and a child after 3 hours. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

❖ **Refer URGENTLY to hospital for IV treatment.**

❖ If the child can drink, provide the mother with ORS solution and show her how to give frequent sips during the trip or give ORS by naso-gastic tube.

❖ **Start rehydration by tube (or mouth) with ORS solution:** give 20 ml/kg/hour for 6 hours (total of 120 ml/kg).

❖ **Reassess the child every 1–2 hours while waiting for transfer:**

- If there is repeated vomiting or abdominal distension, give the fluid more slowly.
- If the hydration status is not improving after 3 hours, send the child for IV therapy.

❖ After 6 hours reassess the child. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

NOTE:

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

IMMUNIZE EVERY SICK CHILD, AS NEEDED

Give follow-up care

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

▶ Pneumonia

After 2 days:

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

Ask:

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

Assess for HIV infection

Treatment:

- ❖ If ***chest indrawing or a general danger sign,*** give a dose of second-line antibiotic or intramuscular chloramphenicol. Then refer URGENTLY to hospital.
- ❖ If ***breathing rate, fever and eating are the same,*** change to the second-line antibiotic and advise the mother to return in 2 days or refer. (If this child had measles within the last 3 months or is known or suspected to have Symptomatic HIV Infection, refer.)
- ❖ If ***breathing slower, less fever, or eating better,*** complete the 5 days of antibiotic.

▶ Persistent diarrhoea

After 5 days:

Ask:

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

Assess for HIV infection

Treatment:

- ❖ If *the diarrhoea has not stopped* (child is still having 3 or more loose stools per day) do a full assessment of the child. Treat for dehydration if present. Then *refer* to hospital including for assessment for ART.
- ❖ If *the diarrhoea has stopped* (child having less than 3 loose stools per day), tell the mother to follow the usual feeding recommendations for the child's age.

▶ Dysentery:

After 2 days:

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

Ask:

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

Treatment:

- ❖ If the child is *dehydrated*, treat for dehydration.
- ❖ If number of stools, blood in the stools, fever, abdominal pain, or eating is worse or the same

  Change to second-line oral antibiotic recommended for shigella in your area. Give it for 5 days. Advise the mother to return in 2 days. If you do not have the second line antibiotic, REFER TO HOSPITAL.

  Exceptions: if the child is less than 12 months old or was dehydrated on the first visit, or if he had measles within the last 3 months, REFER TO HOSPITAL.
- ❖ **If fewer stools, less fever, less abdominal pain, and eating better,** continue giving ciprofloxacin until finished.

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

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

▶ Malaria (Low or High Malaria Risk)

If fever persists after 2 days, or returns within 14 days:

Do a full reassessment of the child > *See ASSESS & CLASSIFY chart.*
Assess for other causes of fever.

Treatment:

- ❖ If the child has ***any general danger sign or stiff neck***, treat as VERY SEVERE FEBRILE DISEASE.
- ❖ **If the child has any *cause of fever other than malaria, provide treatment.***
- ❖ ***If malaria is the only apparent cause of fever:***
  - Treat with the second-line oral antimalarial (if no second-line antimalarial is available, refer to hospital.) Advise the mother to return again in 2 days if the fever persists.
  - If fever has been present for 7 days, refer for assessment.

▶ Fever-malaria unlikely (Low Malaria Risk)

If fever persists after 2 days:

Do a full reassessment of the child > *See ASSESS & CLASSIFY chart*.
Assess for other causes of fever.

Treatment:

- ❖ If the child has ***any general danger sign or stiff neck***, treat as VERY SEVERE FEBRILE DISEASE.
- ❖ If the child has any ***cause of fever other than malaria,*** provide treatment.
- ❖ If ***malaria is the only apparent cause of fever:***
  - Treat with the first-line oral antimalarial. Advise the mother to return again in 2 days if the fever persists.
  - If fever has been present for 7 days, refer for assessment.

▶ Measles with eye or mouth complications

After 2 days:

Look for red eyes and pus draining from the eyes.
Look at mouth ulcers.
Smell the mouth.

Treatment for Eye Infection:

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

Treatment for Mouth Ulcers:

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

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

▶ Ear infection

After 5 days:

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

Check for HIV infection.

Treatment:

- ❖ If there is ***tender swelling behind the ear or high fever (38.5°C or above)***, refer URGENTLY to hospital.
- ❖ ***Acute ear infection: if ear pain or discharge persists,*** treat with 5 more days of the same antibiotic. Continue wicking to dry the ear. Follow-up in 5 days.
- ❖ ***Chronic ear infection:*** Check that the mother is wicking the ear correctly. Encourage her to continue.
- ❖ If no ear pain or discharge, praise the mother for her careful treatment. If she has not yet finished the 5 days of antibiotic, tell her to use all of it before stopping.

▶ Feeding problem

After 5 days:

Reassess feeding > *See questions at the top of the COUNSEL chart.*
Ask about any feeding problems found on the initial visit.

- ❖ Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the child back again.
- ❖ If the child is very low weight for age, ask the mother to return 30 days after the initial visit to measure the child's weight gain.

▶ Anaemia

After 14 days:

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

▶ Very low weight

After 30 days:

Weigh the child and determine if the child is still very low weight for age. Reassess feeding. *>See questions at the top of the COUNSEL chart.*

Check for HIV infection.

Treatment:

- ❖ If the child is *no longer very low weight for age,* praise the mother and encourage her to continue.
- ❖ If the child is still *very low weight for age,* counsel the mother about any feeding problem found. Ask the mother to return again in one month. Continue to see the child monthly until the child is feeding well and gaining weight regularly or is no longer very low weight for age.

  Exception:

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

▶ Give follow-up care for the child with possible HIV infection/ HIV exposed or suspected symptomatic or confirmed HIV infection

General principles of good chronic care for HIV-infected children

- ❖ Develop a treatment partnership with the mother and infant or child
- ❖ Focus on the mother and child's concerns and priorities
- ❖ Use the '5 As' : Assess, Advise, Agree, Assist, Arrange to guide you the steps on chronic care consultation. Use the 5As at every patient consultation
- ❖ Support the mother and child's self-management
- ❖ Organize proactive follow-up
- ❖ Involve "expert patients", peer educators and support staff in your health facility
- ❖ Link the mother and child to community-based resources and support
- ❖ Use written information – registers, Treatment Plan and treatment cards - to document, monitor and remind
- ❖ Work as a clinical team
- ❖ Assure continuity of care

If possible HIV infection/HIV exposed

- ❖ Follow up in 14 days, then monthly or as per national guidelines
- ❖ Do a full re-assessment at each follow-up visit and reclassify for HIV on each follow-up visit
- ❖ Counsel about feeding practices (page 25 in chart booklet and according to the recommendations in Module 3)
- ❖ Follow **co-trimoxazole prophylaxis** as per national guidelines
- ❖ Follow national immunization schedule
- ❖ Follow Vitamin A supplements from 6 months of age every 6 months
- ❖ Monitor growth and development
- ❖ Virological Testing for HIV infection as early as possible from 6 weeks of age
- ❖ Refer for ARVs if infant develops severe signs suggestive of HIV
- ❖ Counsel the mother about her own HIV status and arrange counselling and testing for her if required

** Any child with confirmed HIV infection should be enrolled in chronic HIV care, including assessment for eligibility of ART—refer to subsequent sections of the chart booklet.*

If suspected symptomatic HIV infection

- ❖ Follow up in 14 days, then monthly or as per national guidelines
- ❖ Do a full assessment—classify for common childhood illnesses, for malnutrition and feeding, skin and mouth conditions and for HIV on each visit
- ❖ Check if diagnostic HIV test has been done and if not, test for HIV as soon as possible
- ❖ Assess feeding and check weight and weight gain
- ❖ Encourage breastfeeding - mothers to continue exclusive breastfeeding
- ❖ Advise on any new or continuing feeding problems
- ❖ Initiate or follow up **co-trimoxazole prophylaxis** according to national guidelines
- ❖ Give immunizations according to schedule. Do not give BCG
- ❖ Give Vitamin A according to schedule
- ❖ Provide pain relief if needed
- ❖ Refer for confirmation of HIV infection and ART, if not yet confirmed

If child is confirmed HIV infected*

- ❖ Follow up in 14 days, then monthly or as per national guidelines
- ❖ Continue **co-trimoxazole prophylaxis**
- ❖ Follow-up on feeding
- ❖ Home care:
  - Counsel the mother about any new or continuing problems
  - If appropriate, put the family in touch with organizations or people who could provide support
  - Explain the importance of early treatment of infections or refer
  - Advise the mother about hygiene in the home, in particular when preparing food
- ❖ Reassess for eligibility for ART or REFER

If child confirmed uninfected

- ❖ Stop co-trimoxazole only if no longer breastfeeding and more than 12 months of age
- ❖ Counsel mother on preventing HIV infection and about her own health

If HIV testing has not been done

- ❖ Re-discuss the benefits of HIV testing
- ❖ Identify where and when HIV testing including virological testing can be done
- ❖ If mother consents arrange HIV testing and follow-up visit

If mother refuses testing

- ❖ Provide ongoing care for the child, including routine monthly follow-up
- ❖ Discuss and provide **co-trimoxazole prophylaxis**
- ❖ On subsequent visits, re-counsel the mother on preventing HIV and on benefits of HIV testing

COUNSEL THE MOTHER

▶ Assess the Feeding of Sick Infants under 2 years (or if child has very low weight for age)

Ask questions about the child's usual feeding and feeding during this illness. Note whether the mother is HIV infected, uninfected, or does not know her status. Compare the mother's answers to the Feeding Recommendations for the child's age.

ASK — How are you feeding your child?

If the infant is receiving any breast milk, ASK:

- How many times during the day?
- Do you also breastfeed during the night?

If infant is receiving replacement milk, ASK:

- What replacement milk are you giving?
- How many times during the day and night?
- How much is given at each feed?
- How is the milk prepared?
- How is the milk being given? Cup or bottle?
- How are you cleaning the utensils?
- If still breast feeding as well as giving replacement milk could the mother give extra breast milk instead of replacement milk (especially if the baby is below 6 months)

Does the infant take any other food or fluids?

- ❖ What food or fluids?
- ❖ How many times per day?
- ❖ What do you use to feed the child?

If low weight for age, ASK:

- ❖ How large are servings?
- ❖ Does the child receive his own serving?
- ❖ Who feeds the child and how?

During this illness, has the infant's feeding changed?

- ❖ If yes, how?

▶ Feeding recommendations during sickness and health

NOTE: These feeding recommendations should be followed for infants of HIV negative mothers.

Mothers who DO NOT KNOW their HIV status should be advised to breastfeed but also to be HIV tested so that they can make an informed choice about feeding.

Up to 6 Months of Age

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

6 Months up to 12 Months

- Breastfeed as often as the child wants.
- Give adequate servings of:

_____

_____

_____

  - 3 times per day if breastfed plus snacks
  - 5 times per day if not breastfed.

12 Months up to 2 Years

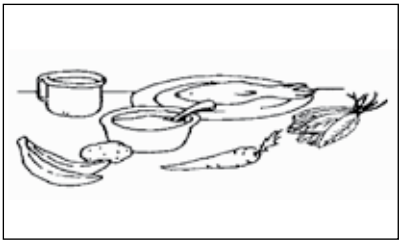
- Breastfeed as often as the child wants.
- Give adequate servings of:

_____

_____

_____

or family foods 3 or 4 times per day plus snacks.



2 Years and Older

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

_____

_____

_____

_____

_____

Feeding Recommendations for a child who has PERSISTENT DIARRHOEA

- If still breast feeding, give more frequent, longer breastfeeds, day and night.
- If taking other milk:
  - replace with increased breast feeding OR
  - replace with fermented milk products, such as yoghurt OR replace half the milk with nutrient-rich semisolid food

▶ Feeding advice for the mother of a child with confirmed HIV infection

- ❖ The child with confirmed HIV infection needs the benefits of breast-feeding and should be encouraged to breast-feed. S/he is already HIV infected therefore there is no reason for stopping breast-feeding or using replacement feeding.
- ❖ The child should be fed according to the feeding recommendations for his age.
- ❖ Children with confirmed HIV infection often suffer from poor appetite and mouth sores, give appropriate advice.
- ❖ If the child is being fed with a bottle encourage the mother to use a clean cup as this is more hygienic and will reduce episodes of diarrhoea.
- ❖ Inform the mother about the importance of hygiene when preparing food because her child can easily get sick. She should wash her hands after going to the toilet and before preparing food. If the child is not gaining weight well, the child can be given an extra meal each day and the mother can encourage him to eat more by offering him snacks that he likes if these are available.
- ❖ Advise her about her own nutrition and the importance of a well balanced diet to keep herself healthy. Encourage her to plant vegetables to feed her family.

▶ "AFASS" criteria for stopping breastfeeding for HIV exposed

Acceptable:

Mother perceives no problem in replacement feeding.

Feasible:

Mother has adequate time, knowledge, skills, resources, and support to correctly mix formula or milk and feed the infant up to 12 times in 24 hours.

Affordable:

Mother and family, with community can pay the cost of replacement feeding without harming the health and nutrition of the family.

Sustainable:

Availability of a continuous supply of all ingredients needed for safe replacement feeding for up to one year of age or longer.

Safe:

Replacement foods are correctly and hygienically prepared and stored.

▶ Counsel the mother about Stopping Breastfeeding (for HIV exposed)

- ❖ While you are breast-feeding teach your infant to drink expressed breast milk from a cup. This milk may be heat-treated to destroy HIV.
- ❖ Once the infant is drinking comfortably, replace one breastfeed with one cup feed using expressed breast milk.
- ❖ Increase the number of cup-feeds every few days and reduce the number of breastfeeds. Ask an adult family member to help with cup feeding.
- ❖ Stop putting your infant to your breast completely as soon as your baby is accustomed to frequent cup feeding. From this point on it is best to heat-treat your breast milk.
- ❖ If your infant is receiving milk only check that your baby has at least 6 wet nappies in a 24 hour period. This means he is getting enough milk.
- ❖ Gradually replace the expressed breast milk with commercial infant formula or another milk after 6 months.
- ❖ If your infant needs to suck, give him/her one of your clean fingers instead of the breast.
- ❖ To avoid breast engorgement (swelling) express a little milk whenever your breasts feel full. This will help you feel more comfortable. Use cold compresses to reduce inflammation. Wear a firm bra to prevent discomfort.
- ❖ Do not begin breast-feeding again once you have stopped. If you do you can increase the chances of passing HIV to your infant. If your breasts become engorged express breast milk by hand.
- ❖ Begin using a family planning method of your choice, if you have not already done so, as soon as you start reducing breastfeeds.

▶ Counsel the mother about feeding problems

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

- If the mother reports difficulty with breast-feeding, assess breast-feeding (see YOUNG *INFANT chart*).
  As needed, show the mother correct positioning and attachment for breast-feeding.
- **If the child is less than 6 months old and is taking other milk or foods*:**
  - Build mother's confidence that she can produce all the breast milk that the child needs.
  - Suggest giving more frequent, longer breastfeeds day or night, and gradually reducing other milk or foods.
- **If other milk needs to be continued, counsel the mother to:**
  - Breastfeed as much as possible, including at night.
  - Make sure that other milk is a locally appropriate breast milk substitute.
  - Make sure other milk is correctly and hygienically prepared and given in adequate amounts.
  - Finish prepared milk within an hour.
- **If the mother is using a bottle to feed the child:**
  - Recommend substituting a cup for bottle.
  - Show the mother how to feed the child with a cup.

- **If the child is not feeding well during illness, counsel the mother to:**
  - Breastfeed more frequently and for longer if possible.
  - Use soft, varied, appetizing, favourite foods to encourage the child to eat as much as possible, and offer frequent small feeds.
  - Clear a blocked nose if it interferes with feeding.
  - Expect that appetite will improve as child gets better.
- **If the child has a poor appetite:**
  - Plan small, frequent meals.
  - Give milk rather than other fluids except where there is diarrhoea with some dehydration.
  - Give snacks between meals.
  - Give high energy foods.
  - Check regularly.
- **If the child has sore mouth or ulcers:**
  - Give soft foods that will not burn the mouth, such as eggs, mashed potatoes, pumpkin or avocado.
  - Avoid spicy, salty or acid foods.
  - Chop foods finely.
  - Give cold drinks or ice, if available.

** if child is HIV exposed, counsel the mother about the importance of not mixing breast-feeding with replacement feeding.*

▶ Feeding recommendations: Child classified as HIV exposed

Up to 6 Months of Age

Breastfeed exclusively as often as the child wants, day and night.

Feed at least 8 times in 24 hours.

Do not give other foods or fluids (mixed feeding increases the risk of HIV transmission from mother to child when compared with exclusive breastfeeding).

Stop breast-feeding as soon as this is AFASS.

OR (if feasible and safe)
Formula feed exclusively (no breast milk at all)
Give formula. Other foods or fluids are not necessary.
Prepare correct strength and amount just before use. Use milk within two hours and discard any left over (a fridge can store formula for 24 hours).
Cup feeding is safer than bottle feeding
Clean the cup and utensils with hot soapy water.
Give these amounts of formula 6 to 8 times per day.

* Exception: heat-treated breast milk can be given.

Age months	Amount and times per day
0 up to 1	60 ml x 8
1 up to 2	90 ml x 7
2 up to 3	120 ml x 6
3 up to 4	120 ml x 6
4 up to 5	150 ml x 6
5 up to 6	150 ml x 6

6 Months up to 12 Months

If still breast-feeding, breastfeed as often as the child wants.

Give 3 adequate servings of nutritious complementary foods plus one snack per day (to include protein, mashed fruit and vegetables).

Each meal should be 3/4 cup*. If possible, give an additional animal-source food, such as liver or meat.

_____

_____

_____

If an infant is not breast-feeding, give about 1–2 cups (500 ml) of full cream milk or infant formula per day

Give milk with a cup, not a bottle

If no milk is available, give 4-5 feeds per day.

* *one cup= 250 ml*

12 Months up to 2 Years

- If still breastfeeding, breastfeed as often as the child wants.
- Give adequate servings of:

_____

_____

_____

_____

or family foods 5 times per day.

If breastfed, give adequate servings 3 times per day plus snacks

If an infant is not breastfeeding, give about 1-2 cups* (500 ml) of full cream milk or infant formula per day

Give milk with a cup, not a bottle

If no milk is available, give 4–5 feeds per day

* one cup = 250 ml

Stopping breastfeeding

Stopping breast-feeding means changing from all breast milk to no breast milk (over a period of 2-3 days to 2-3 weeks). Plan in advance to have a safe transition.

Stop breast-feeding as soon as this is AFASS (see page 27). This would usually be at the age of 6 months but some women may have to continue longer.

Help mother prepare for stopping breastfeeding:

- Mother should discuss and plan in advance stopping breast-feeding with her family if possible
- Express milk and give by cup
- Find a regular supply of formula or other milk, e.g. full cream cows milk
- Learn how to prepare and store milk safely at home

Help mother make the transition:

- Teach mother to cup feed her baby
- Clean all utensils with soap and water
- Start giving only formula or cows milk once the baby takes all feeds by cup

Stop breast-feeding completely:

- Express and discard enough breast milk to keep comfortable until lactation stops

▶ Counsel the mother about her own health

- ❖ If the mother is sick, provide care for her, or refer her for help.
- ❖ If she has a breast problem (such as engorgement, sore nipples, breast infection), provide care for her or refer her for help.
- ❖ Advise her to eat well to keep up her own strength and health.
- ❖ Check the mother's immunization status and give her tetanus toxoid if needed.
- ❖ Make sure she has access to:
  - Family planning
  - Counselling on STD and AIDS prevention.
- ❖ Encourage every mother to be sure to know her own HIV status and to seek HIV testing if she does not know her status or is concerned about the possibility of HIV in herself or her family.

▶ Fluid

Advise the Mother to Increase Fluid During Illness

For any sick child:

- ❖ If child is breastfed, breastfeed more frequently and for longer at each feed. If child is taking breast-milk substitutes, increase the amount of milk given Increase other fluids. For example, give soup, rice water, yoghurt drinks or clean water.

For child with diarrhoea:

- ❖ Giving extra fluid can be lifesaving. Give fluid according to Plan A or Plan B on the *TREAT THE CHILD chart*

When to return

Advise the mother when to return to health worker

Follow-up visit

If the child has:	Return for first follow-up in:
• PNEUMONIA • DYSENTERY • MALARIA, if fever persists • FEVER-MALARIA UNLIKELY, if fever persists • MEASLES WITH EYE OR MOUTH COMPLICATIONS	2 days
• PERSISTENT DIARRHOEA • ACUTE EAR INFECTION • CHRONIC EAR INFECTION • FEEDING PROBLEM • COUGH OR COLD, if not improving	5 days
• ANAEMIA • CONFIRMED HIV INFECTION • SUSPECTED SYMPTOMATIC HIV INFECTION • HIV EXPOSED/ POSSIBLE HIV	14 days
• VERY LOW WEIGHT FOR AGE	30 days

Advise the mother to come for follow-up at the earliest time listed for the child's problems.

When to return immediately

Advise mother to return immediately if the child has any of these signs:	
Any sick child	• Not able to drink or breastfeed • Becomes sicker • Develops a fever
If child has NO PNEUMONIA: COUGH OR COLD, also return if:	• Fast breathing • Difficult breathing
• If child has Diarrhoea, also return if:	• Blood in stool • Drinking poorly

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

Do a rapid apraisal of all waiting infants

Ask the mother what the young infant's problems are

❖ Determine if this is an initial or follow-up visit for this problem.

- if follow-up visit, use the follow-up instructions
- if initial visit, assess the young infant as follows:

▶ Check for very severe disease and local infection

ASK:	LOOK, LISTEN, FEEL:	CLASSIFY ALL YOUNG INFANTS
❖ Is the infant having difficulty in feeding? ❖ Has the infant had convulsions (fits)?	❖ Count the breaths in one minute. Repeat the count if 60 or more breaths per minute. } YOUNG INFANT MUST BE CALM ❖ Look for severe chest indrawing. ❖ Measure axillary temperature. ❖ Look at the umbilicus. Is it red or draining pus? ❖ Look for skin pustules. ❖ Look at the young infant's movements. *If infant is sleeping, ask the mother to wake him/her.* • Does the infant move on his/her own? ❖ *If the infant is not moving, gently stimulate him/her.* • Does the infant move only when stimulated but then stops? • Does the infant not move at all ?	

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

*** If referral is not possible, see* ***Integrated Management of Childhood Illness,*** *Management of the sick young infant module, Annex 2 "Where referral is not possible.*

Use all boxes that match infant's symptoms and problems to classify the illness.

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
Any one of the following signs • Not feeding well or • Convulsions or • Fast breathing (60 breaths per minute or more) or • Severe chest indrawing or • Fever (37.5°C* or above) or • Low body temperature (less than 35.5°C*) or • Movement only when stimulated or no movement at all	**VERY SEVERE DISEASE**	• *Give first dose of intramuscular antibiotics.* • *Treat to prevent low blood sugar.* • *Refer URGENTLY to hospital.*** • *Advise mother how to keep the infant warm on the way to the hospital.*
• Umbilicus red or draining pus • Skin pustules	**LOCAL BACTERIAL INFECTION**	• ***Give an appropriate oral antibiotic.*** • Teach mother to treat local infections at home. • Advise mother to give home care for the young infant. • Follow up in 2 days.
• None of the signs of very severe disease or local bacterial infection	**SEVERE DISEASE OR LOCAL INFECTION UNLIKELY**	• Advise mother to give home care for the young infant.

▶ Then check for jaundice

ASK:	LOOK, LISTEN, FEEL:	
• When did jaundice first appear?	• Look for jaundice (yellow eyes or skin). • Look at the young infant's palms and soles. Are they yellow?	**Classify Jaundice**

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Any jaundice if age less than 24 hours or • Yellow palms and soles at any age	**SEVERE JAUNDICE**	• ***Treat to prevent low blood sugar.*** • ***Refer URGENTLY to hospital.*** • ***Advise mother how to keep the infant warm on the way to the hospital.***
• Jaundice appearing after 24 hours of age and • Palms and soles not yellow	**JAUNDICE**	• Advise the mother to give home care for the young infant • Advise mother to return immediately if palms and soles appear yellow. • If the young infant is older than 3 weeks, refer to a hospital for assessment. • Follow-up in 1 day.
• No jaundice	**NO JAUNDICE**	• Advise the mother to give home care for the young infant.

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

IF YES, LOOK AND FEEL:

- ❖ Look at the young infant's general condition:
  - Infant's movements
  - Does the infant move on his/her own?
  - Does the infant move only when stimulated but then stops?
  - Does the infant not move at all ?
  - Is the infant restless and irritable?
- ❖ Look for sunken eyes.
- ❖ Pinch the skin of the abdomen.
  Does it go back:
  - Very slowly (longer than 2 seconds)?
  - or slowly?

Classify Diarrhoea for Dehydration

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

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

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

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
Two of the following signs: • Movement only when stimulated or no movement at all • Sunken eyes • Skin pinch goes back very slowly.	**SEVERE DEHYDRATION**	• If infant has no other severe classification: – Give fluid for severe dehydration (Plan C). **OR** • ***If infant also has another severe classification:*** – ***Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.*** – ***Advise mother to continue breast-feeding.***
Two of the following signs: • Restless, irritable • Sunken eyes • Skin pinch goes back slowly.	**SOME DEHYDRATION**	• Give fluid and breast milk for some dehydration (Plan B). **OR** • ***If infant also has another severe classification:*** – ***Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way.*** – ***Advise mother to continue breast-feeding.*** – Advise mother when to return immediately – Follow-up in 2 days if not improving
• Not enough signs to classify as some or severe dehydration.	**NO DEHYDRATION**	• Give fluids and breast milk to treat for diarrhoea at home (Plan A) • Advise mother when to return immediately • Follow up in 2 days if not improving

▶ Then check the young infant for HIV infection

ASK:	**Classify by test result**
Has the mother or the infant had an HIV test? What was the result?	

SIGNS	CLASSIFY AS	TREATMENT **(Urgent pre-referral treatments are in bold print)**
• Child has positive virological test	**CONFIRMED HIV INFECTION**	• Give cotimoxazole prophylaxis from age 4–6 weeks • Assess the child's feeding and counsel as necessary • Refer for staging and assessment for ART • Advise the mother on home care • Follow-up in 14 days
One or both of the following conditions: • Mother HIV positive • Child has positive HIV antibody test (seropositive)	**POSSIBLE HIV INFECTION/HIV EXPOSED**	• Give co-trimoxazole prophylaxis from age 4–6 weeks • Assess the child's feeding and give appropriate feeding advice • Refer/do virological test to confirm infant's HIV status at least 6 weeks after breast-feeding has stopped • Consider presumptive severe HIV disease • Follow-up in one month
Negative HIV test for mother or child	**HIV INFECTION UNLIKELY**	• Treat, counsel and follow-up existing infections • Advise the mother about feeding and about her own health

▶ Then check for feeding problem or low weight for age in breastfed infants*

If an infant has no indications to refer urgently to hospital

ASK:	**LOOK, LISTEN, FEEL:**
• Is the infant breastfed? If yes, how many times in 24 hours? • Does the infant usually receive any other foods or drinks? If yes, how often? • If yes, what do you use to feed the infant?	• Determine weight for age. • Look for ulcers or white patches in the mouth (thrush).

ASSESS BREASTF-EEDING:

- Has the infant breastfed in the previous hour?

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

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

- Is the infant well attached?

not well attached *good attachment*

TO CHECK ATTACHMENT, LOOK FOR:

- More areola seen above infant's top lip than below bottom lip
- Mouth wide open
- Lower lip turned outwards
- Chin touching breast

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

- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?

not suckling effectively *suckling effectively*

Clear a blocked nose if it interferes with breast-feeding.

Classify FEEDING

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Not well attached to breast or • Not suckling effectively, or • Less than 8 breastfeeds in 24 hours, or • Receives other foods or drinks, or • Low weight for age, or • Thrush (ulcers or white patches in mouth)	**FEEDING PROBLEM OR LOW WEIGHT FOR AGE**	• If not well attached or not suckling effectively, teach correct positioning and attachment. • If not able to attach well immediately, teach the mother to express breast milk and feed by a cup • If breast-feeding less than 8 times in 24 hours, advise to increase frequency of feeding. Advise her to breastfeed as often and for as long as the infant wants, day and night. • If receiving other foods or drinks, counsel mother about breast-feeding more, reducing other foods or drinks, and using a cup. • If not breastfeeding at all: – Refer for breast-feeding counselling and possible relactation. – Advise about correctly preparing – breastmilk substitutes and using a cup. • Advise the mother how to feed and keep the low weight infant warm at home • If thrush, teach the mother to treat thrush at home. • Advise mother to give home care for the young infant. • Follow-up any feeding problem or thrush in 2 days. • Follow-up low weight for age in 14 days.
• Not low weight for age and no other signs of inadequate feeding.	**NO FEEDING PROBLEM**	• Advise mother to give home care for the young infant. • Praise the mother for feeding the infant well.

▶ Then check for feeding problem or low weight for age in infants receiving no-breast milk

(use this chart when an HIV positive mother has chosen not to breastfeed)

ASK:	LOOK, LISTEN,FEEL:	Classify FEEDING
• What milk are you giving? • How many times during the day and night? • How much is given at each feed? • How are you preparing the milk? – Let mother demonstrate or explain how a feed is prepared, and how it is given to the infant. • Are you giving any breast milk at all? • What foods and fluids in addition to replacement feeds is given? • How is the milk being given? • Cup or bottle? • How are you cleaning the feeding utensils?	• Determine weight for age. • Look for ulcers or white patches in the mouth (thrush).	

SIGNS	CLASSIFY AS	TREATMENT (Urgent pre-referral treatments are in bold print)
• Milk incorrectly or unhygienically prepared Or • Giving inappropriate replacement feeds Or • Giving insufficient replacement feeds Or • An HIV positive mother mixing breast and other feeds before 6 months Or • Using a feeding bottle Or • Thrush Or • Low weight for age	**FEEDING PROBLEM OR LOW WEIGHT FOR AGE**	• Counsel about feeding • Explain the guidelines for safe replacement feeding • Identify concerns of mother and family about feeding. • If mother is using a bottle, teach cup feeding • If thrush, teach the mother to treat it at home • Follow-up FEEDING PROBLEM or THRUSH in 2 days • Follow up LOW WEIGHT FOR AGE in 7 days
• Not low weight for age and no other signs of inadequate feeding	**NO FEEDING PROBLEM**	• Advise mother to continue feeding, and ensure good hygiene • Praise the mother for feeding the infant

▶ Then check the young infant's immunization and vitamin a status:

	AGE	VACCINE			VITAMIN A
Immunization Schedule:	Birth	BCG	OPV-0		200 000 IU to the mother within 6 weeks of delivery
	6 weeks	DPT+HIB-1	OPV-1	Hep B 1	
	10 weeks	DPT+HIB-2	OPV-2	Hep B 2	

- ❖ **Give all missed doses on this visit.**
- ❖ Include sick infants unless being referred.
- ❖ Advise the caretaker when to return for the next dose.

▶ Assess other problems

Treat the young infant and counsel the mother

▶ Give first Dose of intramuscular antibiotics

- ❖ Give first dose of ampicillin intramuscularly and
- ❖ Give first dose of Gentamicin intramuscularly.

WEIGHT	AMPICILLIN Dose: 50 mg per kg To a vial of 250 mg Add 1.3 ml sterile water = 250 mg/1.5 ml	GENTAMICIN	
		Undiluted 2 ml vial containing 20 mg = 2 ml at 10 mg/ml Add 6 ml sterile water to 2 ml vial containing 80 mg* = 8 ml at 10 mg/ml	
		AGE <7 days Dose: 5 mg per kg	AGE>7 days Dose: 7.5 mg per kg
1-<1.5 kg	0.4 ml	0.6 ml*	0.9 ml*
1.5-<2 kg	0.5 ml	0.9 ml*	1.3 ml*
2-<2.5 kg	0.7 ml	1.1 ml*	1.7 ml*
2.5-<3 kg	0.8 ml	1.4 ml*	2.0 ml*
3-<3.5 kg	1.0 ml	1.6 ml*	2.4 ml*
3.5-<4 kg	1.1 ml	1.9 ml*	2.8 ml*
4-<4.5 kg	1.3 ml	2.1 ml*	3.2 ml*

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

- ❖ Referral is the best option for a young infant classified with VERY SEVERE DISEASE. If referral is not possible, continue to give ampicillin and gentamicin for at least 5 days. Give ampicillin two times daily to infants less than one week of age and 3 times daily to infants one week or older. Give gentamicin once daily.

▶ Treat the young infant to prevent low blood sugar

- ❖ ***If the young infant is able to breastfeed:***
  Ask the mother to breastfeed the young infant.
- ❖ ***If the young infant is not able to breastfeed but is able to swallow:***
  Give 20-50 ml (10 ml/kg) expressed breastmilk before departure. If not possible to give expressed breastmilk, give 20-50 ml (10 ml/kg) sugar water (To make sugar water: Dissolve 4 level teaspoons of sugar (20 grams) in a 200-ml cup of clean water).
- ❖ ***If the young infant is not able to swallow:***
  Give 20-50 ml (10 ml/kg) of expressed breastmilk or sugar water by nasogastric tube.

▶ Teach the mother how to keep the young infant warm on the Way to the hospital

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

▶ Give an appropriate oral antibiotic for local infection

For local bacterial infection:

First-line antibiotic : _____

Second-line antibiotic: _____

	COTRIMOXAZOLE (trimethoprim + sulphamethoxazole) • Give two times daily for 5 days			**AMOXICILLIN** • Give two times daily for 5 days	
AGE or WEIGHT	Adult Tablet single strength (80 mg trimethoprim + 400 mg sulpham-ethoxazole)	Pediatric Tablet (20 mg trimethoprim +100 mg sulphameth-oxazole)	Syrup (40 mg trimethoprim +200 mg sulphameth-oxazole)	Tablet 250 mg	Syrup 125 mg in 5 ml
AGE or WEIGHT		1/2*	1.25 ml*	1/4	2.5 ml
1 month up to 2 months (4-<6 kg)	1/4	1	2.5 ml	1/2	5 ml

** Avoid cotrimoxazole in infants less than 1 month of age who are premature or jaundiced.*

▶ Teach the mother how to treat local infections at home

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

To Treat Skin Pustules or Umbilical Infection

- ❖ The mother should do the treatment twice daily for 5 days
- ❖ Wash hands
- ❖ Gently wash off pus and crusts with soap and water
- ❖ Dry the area
- ❖ Paint the skin or umbilicus/cord with full strength gentian violet (0.5%)
- ❖ Wash hands again

To Treat Thrush (ulcers or white patches in mouth)

The mother should do the treatment 4 times daily for 7 days

- ❖ Wash hands
- ❖ Paint the mouth with half-strength gentian violet (0.25%) using a clean soft cloth wrapped around the finger
- ❖ Wash hands again

- ❖ ***To Treat Diarrhoea, See TREAT THE CHILD CHART.***

- ❖ ***Immunize Every Sick Young Infant, as needed.***

▶ Teach correct positioning and attachment for breastfeeding

- **Show the mother how to hold her infant**.
  - with the infant's head and body in line
  - with the infant approaching breast with nose opposite to the nipple
  - with the infant held close to the mother's body
  - with the infant's whole body supported, not just neck and shoulders.
- **Show her how to help the infant to attach. She should:**
  - touch her infant's lips with her nipple
  - wait until her infant's mouth is opening wide
  - move her infant quickly onto her breast, aiming the infant's lower lip well below the nipple.
- Look for signs of good attachment and effective suckling. If the attachment or suckling is not good, try again.

▶ Teach the mother how to express breast milk

Ask the mother to:

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

▶ Counsel the HIV-positive mother who has chosen not to breastfeed (or the caretaker of a child who cannot be breastfed)

The mother or caretaker should have received full counselling before making this decision

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

▶ Teach the mother how to feed by a cup

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

▶ How to prepare commercial formula milk

Wash your hands before preparing the formula.

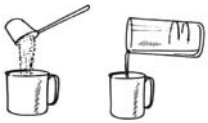
Make _____ ml for each feed. Feed the baby _____ times every 24 hours.

Always use the marked cup or glass to measure water and the scoop to measure the formula powder. Your baby needs _____ scoops.

Measure the exact amount of powder that you will need for one feed.

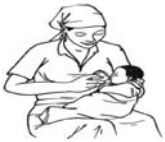
Boil enough water vigorously for 1 or 2 seconds.

Add the hot water to the powdered formula. The water should be added while it is still hot and not after it has cooled down. Stir well.



Only make enough formula for one feed at a time.

Do not keep milk in a thermos flask because it will become contaminated quickly.



Feed the baby using a cup. Discard any unused formula, give it to an older child or drink it yourself.

Wash the utensils.

Come back to see me on _____.

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

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

▶ Advise the Mother to Give Home Care for the Young Infant

1. **Exclusively breastfeed the young infant**

   Give only breastfeeds to the young infant

   Breastfeed frequently, as often and for as long as the infant wants,

2. **Make sure that the young infant is kept warm at all times.**

   In cool weather cover the infant's head and feet and dress the infant with extra clothing.

3. **When to return:**

Follow up visit	
If the infant has:	**Return for first follow-up in:**
• JAUNDICE	1 day
• LOCAL BACTERIAL INFECTION • FEEDING PROBLEM • THRUSH • DIARRHOEA	2 days
• LOW WEIGHT FOR AGE	14 days
• CONFIRMED HIV INFECTION or • POSSIBLE HIV INFECTION/ • HIV EXPOSED	14 days

WHEN TO RETURN IMMEDIATELY:

Advise the caretaker to return immediately if the young infant has any of these signs:
• Breastfeeding poorly • Reduced activity • Becomes sicker • Develops a fever • Feels unusually cold • Fast breathing • Difficult breathing • Palms and soles appear yellow

Give follow-up care for the young infant

Assess every young infant for "very severe disease" during follow up visit.

▶ Local bacterial infection

After 2 days:

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

Look for skin pustules.

Treatment:

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

▶ Jaundice

After 1 day:

Look for jaundice. Are palms and soles yellow?

- ❖ If palms and soles are yellow, refer to hospital.
- ❖ If palms and soles are not yellow, but jaundice has not decreased, advise the mother home care and ask her to return for follow up in 1 day.
- ❖ If jaundice has started decreasing, reassure the mother and ask her to continue home care. Ask her to return for follow up at 3 weeks of age. If jaundice continues beyond three weeks of age , refer the young infant to a hospital for further assessment.

▶ Diarrhoea

After 2 days:

Ask: Has the diarrhoea stopped ?

Treatment:

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

▶ Possible HIV/HIV exposed

- ❖ Follow-up after 14 days and then monthly or according to immunization programme.
- ❖ Counsel about feeding practices. Avoid giving both breast milk and formula milk (mixed feeding).
- ❖ Start **co-trimoxazole prophylaxis** at 4–6 weeks, if not started already and check compliance.
- ❖ Test for HIV infection as early as possible, if not already done so.
- ❖ Refer for ART if presumptive severe HIV infection as per definition above.
- ❖ Counsel the mother about her HIV status and arrange counselling and testing for her if required.

▶ Feeding problem

After 2 days:

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

Ask about any feeding problems found on the initial visit.

- ❖ Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the young infant back again.
- ❖ If the young infant is low weight for age, ask the mother to return 14 days after the initial visit to measure the young infant's weight gain.

Exception:

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

▶ Low weight for age

After 14 days:

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

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

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

Exception:

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

▶ Thrush

After 2 days:

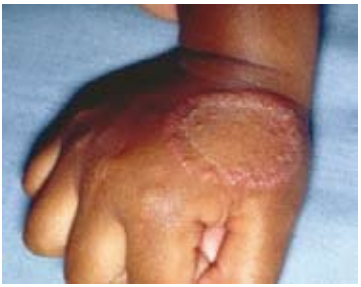
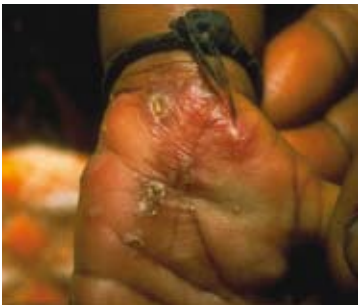
Look for ulcers or white patches in the mouth (thrush).

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

- ❖ If ***thrush is worse***, or the infant has ***problems with attachment or suckling***, refer to hospital.
- ❖ If ***thrush is the same or better***, and if the infant is ***feeding well***, continue half-strength gentian violet for a total of 5 days.

Annex A: Skin and Mouth Conditions*

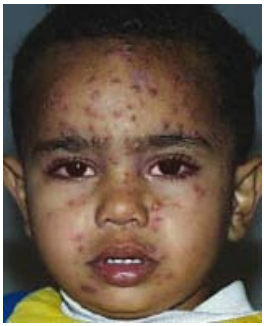
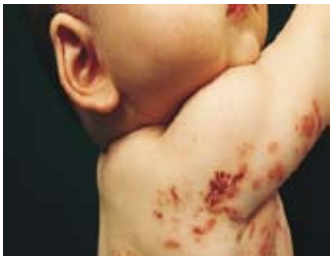
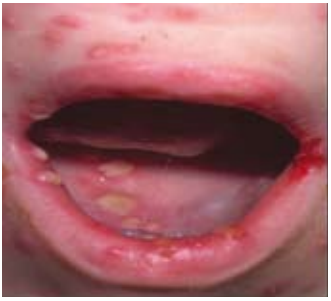
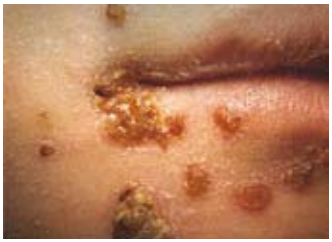
▶ Identify skin problem if skin is itching

	SIGNS	CLASSIFY AS:
	Itching rash with small papules and scratch marks. Dark spots with pale centres	**PAPULAR ITCHING RASH (PRURIGO)**
	An itchy circular lesion with a raised edge and fine scaly area in centre with loss of hair. May also be found on body or web of feet.	**RINGWORM (TINEA)**
	Rash and excoriations on torso; burrows in web space and wrist. Face spared.	**SCABIES**

* IMAI acute care module gives more information

TREATMENT	Unique features in HIV
Treat itching: - calamine lotion - Antihistamine by mouth - If not improved, 1% hydrocortisone Can be an early sign of HIV and needs assessment for HIV	**Is a Clinical stage 2 defining disease**
Whitfield's ointment or other anti-fungal cream if few patches If extensive Refer, if not give: ketoconazole for 2 up to 12 months (6-10 kg) 40 mg per day. For 12 up to 5 years give 60 mg per day . Or give griseofulvin 10 mg/kg/day. If in hairline, shave hair Treat itching as above	**Extensive:** There is a high incidence of coexisting nail infection which has to be treated adequately, to prevent recurrences of tinea infection of skin **Fungal nail infection is a Clinical stage 2 defining disease**
Treat itching as above Manage with anti-scabies: 25% topical benzyl benzoate at night , repeat for 3 days after washing 1% topical lindane cream or lotion once– wash off after 12 hours	In HIV positive individuals scabies may manifest as crusted scabies. Crusted scabies presents as extensive areas of crusting mainly on the scalp face, back, and feet. Patients may not complain of itch but the scales will be teeming with mites.

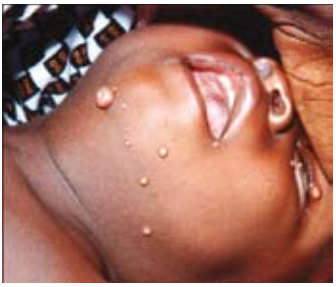
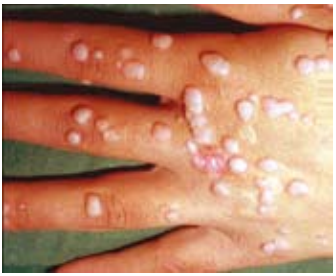
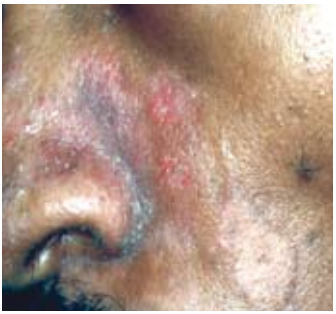
▶ Identify skin problem if skin has blisters/sores/pustules

	SIGNS	CLASSIFY AS:
	Vesicles over body. Vesickles appear progressively over days and form scabs after they rupture	**Chicken pox**
	Vesicles in one area on one side of body with intense pain or scars plus shooting pain. Herpes zoster is uncommon in children except where they are immuno-compromised, for example if infected with HIV	**HERPES ZOSTER**
	Vesicular lesion or sores, also involving lips and/or mouth	**HERPES SIMPLEX**
	Red, tender, warm crusts or small lesions	**IMPETIGO OR FOLLICULITIS**

See below for more information about drug reactions

TREATMENT	Unique features in HIV
Treat itching as above Refer URGENTLY if pneumonia or jaundice appear	Presentation atypical only if child is immunocompromised Duration of disease longer Complications more frequent Chronic infection with continued appearance of new lesions for >1 month; typical vesicles evolve into nonhealing ulcers that become necrotic, crusted, and hyperkeratotic.
Keep lesions clean and dry. Use local antiseptic If eye involved give acyclovir– 20 mg /kg (max 800 mg) 4 times daily for 5 days Give pain relief Follow-up in 7 days	Duration of disease longer Hemorrhagic vesicles, necrotic ulceration Rarely recurrent, disseminated or multidermatomal **Is a Clinical stage 2 defining disease**
If child unable to feed, refer If first episode or severe ulceration, give acyclovir as above	Extensive area of involvement Large ulcers Delayed healing (often greater than a month) Resistance to Acyclovir common. Therefore continue treatment till complete healing of ulcer Chronic HSV infection (>1 month) is a Clinical stage 4 defining disease
Clean sores with antiseptic Drain pus if fluctuant Start cloxacillin if size >4cm or red streaks or tender nodes or multiple abscesses for 5 days (25–50 mg/kg every 6 hours) Refer URGENTLY if child has fever and /or if infection extends to the muscle	

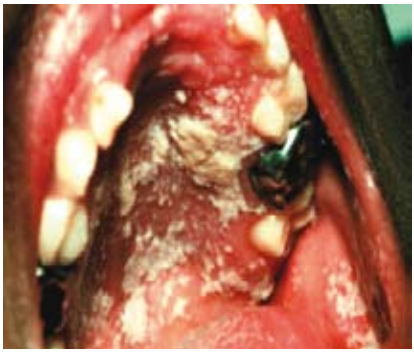
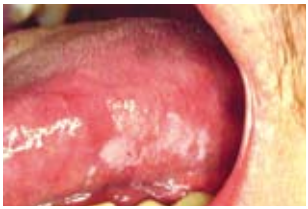
▶ Identify papular lesions: non-itchy

	PRESENTING SIGNS & SYMPTOMS	CLASSIFY
	Skin colored pearly white papules with a central umblication. It is most commonly seen on the face and trunk in children.	**Molluscum contagiosum**
	The **common wart** appears as papules or nodules with a rough (verrucous) surface.	**Warts**
	Greasy scales and redness on central face, body folds	**Sebbhorrea**

MANAGEMENT & TREATMENT	UNIQUE FEATURES IN HIV
can be treated by various modalities: Leave them alone unless superinfected **Use of phenol:** pricking each lesion with a needle or sharpened orange stick and dabbing the lesion with phenol Electrodesiccaton Liquid nitrogen application (using orange stick) Curettage	Incidence is higher Giant molluscum (>1cm in size), or coalescent double or triple lesions may be seen More than 100 lesions may be seen. Lesions often chronic and difficult to eradicate Extensive molluscum contagiosum is a Clinical stage 2 defining disease
Treatment: Topical salicylic acid preparations (eg. Duofilm). Liquid nitrogen cryotherapy. Electrocautery	Lesions more numerous and recalcitrant to therapy. Extensive viral warts is a Clinical stage 2 defining disease
Ketoconazole shampoo If severe, refer or provide tropical steroids. For seborrheic dermatitis: 1% hyrdocortison cream X2 daily. If severe, refer.	Seborrheic dermatitis may be severe in HIV infection. Secondary infection may be common

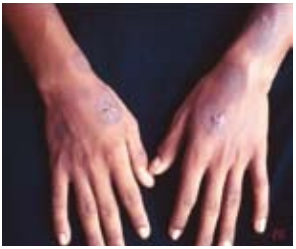
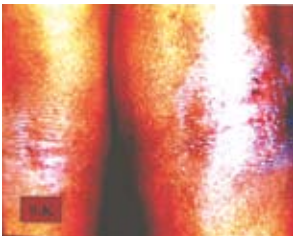
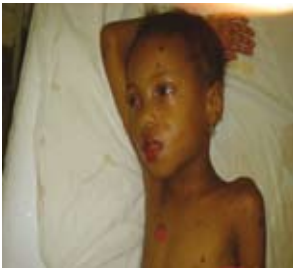
Assess, classify and treat skin and mouth

▶ Mouth problems : Thrush

	CLASSIFY:
Not able to swallow	**SEVERE OESOPHAGEAL THRUSH**
Pain or difficulty swallowing	**OESOPHAGEAL THRUSH**
White patches in mouth which can be scraped off. 	**ORAL THRUSH**
most frequently seen on the sides of the tongue, a white plaque with a corrugated appearance. 	**ORAL HAIRY LEUCOPLAKIA**

TREATMENTS:
Refer URGENTLY to hospital. If not able to refer, give fluconazole. If mother is breast-feeding check and treat the mother for breast thrush. (Stage 4 disease)
Give fluconazole. Give oral care to young infant or child. If mother is breast-feeding check and treat the mother for breast thrush. Follow up in 2 days. Tell the mother when to come back immediately. Once stabilized, refer for ART initiation (Stage 4 disease)
Counsel the mother on home care for oral thrush. The mother should: Wash her hands Wash the young infant/child's mouth with a soft clean cloth wrapped around her finger and wet with salt water Instill 1ml nystatin four times per day or paint the mouth with half strength gentian violet for 7 days Wash her hands after providing treatment for the young infant or child Avoid feeding for 20 minutes after medication If breastfed, check mother's breasts for thrush. If present (dry, shiny scales on nipple and areola), treat with nystatin or GV Advise the mother to wash breasts after feeds. If bottle fed, advise to change to cup and spoon If severe, recurrent or pharyngeal thrush, consider symptomatic HIV Give paracetamol if needed for pain **(Stage 3 disease)**
Does not independently require treatment, but resolve with ART and Acyclovir **(Stage 2 disease)**

▶ Drug/allergic reactions

Pictures	Signs	CLASSIFY
	Generalized red, widespread with small bumps or blisters; or one or more dark skin areas (fixed drug reactions)	**Fixed drug reactions**
	Wet, oozing sores or excoriated, thick patches	**ECZEMA**
	Severe reaction due to co-trimoxazole or NVP involving the skin as well as the eyes and/ mouth. Might cause difficulty breathing	**Steven-Johnson syndrome**

Treatment	Unique features in HIV
Stop medications Give oral antihistamines If peeling rash refer	Could be a sign of reaction to ARV's
Soak sores with clean water to remove crusts (no soap) Dry skin gently Short-term use of topical steroid cream not on face. Treat itching	-
Stop medication Refer Urgently	The most lethal reaction to NVP, co-trimoxazole or even efafiretz .

Annex B: Paediatric ART

▶ Recommended first line ARV regimens for children

The following regimens are recommended by WHO as first line ART for children. The choice of regimen at the country level will be determined by the National ART guidelines.

AZT or d4T + 3TC + NVP or EFV1 :
AZT + 3TC + NVP
AZT + 3TC + EFV
d4T + 3TC + NVP
d4T + 3TC + EFV

ABC +3TC + NVP or EFV1:
ABC + 3TC + NVP
ABC + 3TC + EFV

* If <3 years or <10 kg, use NVP. EFV cannot be used in these children.

▶ Recommendations - When to Start ART

Population	**< 12 mo Confirmed HIV**	**< 12 mo Presumptive ***	**1-4 yrs**	**>5yrs**
Start ART	All with confirmed HIV regardless of clinicial/CD4	All	clinical or immunological criteria	clinical or immunological criteria
Strength of Recommendation	Strong	Strong (Time limited based on performance of algorithms)	Strong	Strong

*If lack ability for viral test, use WHO presumptive diagnosis ofHIV –with clinical sxor low CD4 –allows initiation ART based on presumptive dxand stop if found uninfected. TEXT ONLY -Well infant diagnose late may defer initiation base don CD4/VL

▶ Recommendations - What to start ART

Population	Up to 12months	1-4 yrs	≥5
Start ART	• PMTCT/NVP exposure : PI-regimen * • No PMTCT exposure : NVP-regimen	NVP/EFV+ 2NRTI	NVP/EFV+ 2NRTI
Strength of Recommendation	Strong	Strong	Strong

TEXT

* 3NRTI +NVP, other approaches need data before can be recommended, what to do where NO PI or no cold chain, i.e., no choice, use standard NVP

Need for research on new strategies for ART in MTCT exposed infants

Risks of NVP resistance from any NVP containing ART or MTCT regimens, esp. in BF mothers

DOSAGES

- ❖ Give for children 6 weeks of age and above
- ❖ 0.75 Twice daily means 1 tablet AM and 0.5 (half) tablet PM
- ❖ 1.5 twice daily means 2 tablets AM and 1 tablet PM

Lamivudine (3TC) - give 4mg/kg per dose twice daily					
Weight	**Syrup 10 mg/ml**	**or**	**30 mg tablet**	**or**	**150mg tablet**
3-3.9	3 ml		1		
4-5.9	3 ml		1		
6-9.9	4 ml		1.5		
10-13.9	6 ml		2		
14-19.9			2.5		0.5
20-24.9			3		0.75

Zidovudine(AZT or ZDV) - give 180-240 mg/ metre per dose square twice daily					
Weight	**Syrup 10 mg/ml**	**or**	**60 mg tablet**	**or**	**300mg tablet**
3-3.9	6 ml		1		
4-5.9	6 ml		1		
6-9.9	9 ml		1.5		
10-13.9	12 ml		2		
14-19.9			2.5		0.5
20-24.9			3		0.75

Abacavir (ABC) - give 8 mg/kg per dose twice daily					
Weight	**Syrup 20 mg/ml**	**or**	**60 mg tablet**	**or**	**300mg tablet**
3-3.9	3 ml		1		
4-5.9	3 ml		1		
6-9.9	4 ml		1.5		
10-13.9	6 ml		2		
14-19.9			2.5		0.5
20-24.9			3		0.75

Stavudine (d4T) - give 1 mg/kg per dose twice daily							
Weight	**Syrup 10 mg/ml**	**or**	**6 mg tablet**	**or**	**15 mg tablet**	**or**	**300mg tablet**
3-3.9	6 ml		1				
4-5.9	6 ml		1				
6-9.9	9 ml		1.5				
10-13.9	12 ml		2		1		
14-19.9			2.5				1
20-24.9			3				1

Nevirapine (NVP) - give maintenance dose 160-200 mg/metre square per dose twice daily. Lead-in dose during week 1 and 2 give only AM dose.					
Weight	**Syrup 10 mg/ml**	**or**	**60 mg tablet**	**or**	**300mg tablet**
3-3.9	5 ml		1		
4-5.9	5 ml		1		
6-9.9	8 ml		1.5		
10-13.9	10 ml		2		
14-19.9			2.5		0.75
20-24.9			3		0.75

Lopinavir/retonavir (Lop/rit)- give 230/75.5 mg/m^2 twice daily and increased to 300/75 mg/m2 if taken with Nevirapine.			
Weight	**Syrup 80/20 mg/ml**	**or**	**100/25 mg tablet**
3-3.9	1 ml		
4-5.9	1.5 ml		
6-9.9	1.5 ml		
10-13.9	2 ml		1.5
14-19.9	2.5 ml		2
20-24.9	3 ml		2.5

Children 25 mg and above can take adult tablets 1 tablet twice daily EXCEPT for Lopinavir/rit 100/25 mg paed tablets 3 tablets twice daily.

Combinations

Weight	AZT/3TC 60/30 mg	AZT/3TC/NVP 60/30/50mg	d4T/3TC 6/30 mg	d4T/3TC/NVP 6/30/50 mg
3-3.9	1	1	1	1
4-5.9	1	1	1	1
6-9.9	1.5	1.5	1.5	1.5
10-13.9	2	2	2	2
14-19.9	2.5	2.5	2.5	2.5
20-24.9	3	3	3	3

Weight	ABC/3TC 60/30	ABC/3TC/NVP 60/30/50mg	ABC/AZT/3TC 60/60/30
3-3.9	1	1	1
4-5.9	1	1	1
6-9.9	1.5	1.5	1.5
10-13.9	2	2	2
14-19.9	2.5	2.5	2.5
20-24.9	3	3	3

Efavirenz (EFV) - Give 15 mg/kg/day if capsule or tablet once daily.			
Weight	**Combinations of 200, 100 and 50 mg capsules**	**or**	**600 mg tablet**
10-13.9	One 200 mg		
14-19.9	One 200 mg + one 50 mg		
20-24.9	One 200 mg + one 100 mg		

Lamlvudine for PMTCT prophylaxis in newborns. Give 2 mg/kg/dose twice daily for 1 week.				
Weight unknown	**1-1.9**	**2-2.9**	**3-3.9**	**4-4.9**
AM	0.4 ml	0.8 ml	1.2 ml	1.6 ml
PM	0.4 ml	0.8 ml	1.2 ml	1.6 ml

Zidovudine 10mg/ml syrup for PMTCT prophylaxis in newborns. Give 4/kg/ twice daily.				
Weight in kg	**1-1.9**	**2-2.9**	**3-3.9**	**4-4.9**
AM	0.4 ml	0.8 ml	1.2 ml	1.6 ml
PM	0.4 ml	0.8 ml	1.2 ml	1.6 ml

Nevirapine for PMTCT prophylaxis in newborns. 2 mg/kg within 72 hours of birth - one only.				
Unknown weight	**1-1.9**	**2-2.9**	**3-3.9**	**4-4.9**
0.6	0.2	0.4	0.6	0.8

Annex

C: ARV side effects*

	Very common side-effects: warn patients and suggest ways patients can manage; also be prepared to manage when patients seek care	**Potentially serious side effects:** warn patients and tell them to seek care	**Side effects occurring later during treatment:** discuss with patients
d4T stavudine	Nausea Diarrhoea	**Seek care urgently:** Severe abdominal pain Fatigue AND shortness of breath **Seek advice soon:** Tingling, numb or painful feet or legs or hands	**Changes in fat distribution:** Arms, legs, buttocks, cheeks become THIN Breasts, belly, back of neck become FAT
3TC lamivudine	Nausea Diarrhoea		
NVP nevirapine	Nausea Diarrhoea	**Seek care urgently:** Yellow eyes Severe Skin rash Fatigue AND shortness of breath Fever	
ZDV zidovudine (also known as AZT)	Nausea Diarrhoea Headache Fatigue Muscle pain	**Seek care urgently:** Pallor (anaemia)	
EFV efavirenz	Nausea Diarrhoea Strange dreams Difficulty sleeping Memory problems Headache Dizziness	**Seek care urgently:** Yellow eyes Psychosis or confusion Severe Skin rash	

* for more guidance, refer to IMAI chronic care guideline module

Annex D: Drug dosages for opportunistic infections

Fluconazole dosage		
Weight of child	**50mg/5ml oral suspensation**	**50 mg capsule**
3–<6 kg	-	-
6–<10 kg	-	-
10–<15 kg	5 ml once a day	1
15–<20 kg	7.5 ml once a day	1-2
20–<29 kg	12.5 ml once a day	2-3
Nystatin oral suspension 100,000 units per ml given 1-2 ml four times daily for all age groups		

Recommended dosages for acyclovir:	
Age of child	**Dose, frequency and duration**
<2 years	200 mg 8 hourly for 5 days
>2 years	400 mg 8 hourly for 5 days

Recommended dosages for ketoconazole:		
Age of child	**Weight**	**Dose, frequency and duration**
2 months up to 12 months	3–<6 kg	20 mg once daily
	6–<10 kg	40 mg once daily
12 months up to 5 years	10–19 kg	60 mg once daily
Recommended dosages for griseofulvin 10 mg per kg per day		

Recommended dosages for cloxacillin/flucloxacillin:		
Weight of child	**Form**	**Dose, every 6 hours for 5 days**
3–<6 kg	250 mg capsule	1/2 tablet
6–<10 kg		1
10–<15 kg		1
15–<20 kg		2

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

Name: _____ Age: _____ Weight: _____ kg Temperature: _____°C

ASK: What are the child's problems? _____ Initial visit? _____ Follow-up Visit? _____

ASSESS (Circle all signs present)		**CLASSIFY**
CHECK FOR GENERAL DANGER SIGNS NOT ABLE TO DRINK OR BREASTFEED VOMITS EVERYTHING CONVULSIONS	LETHARGIC OR UNCONSCIOUS CONVULSING NOW	General danger signs present? Yes___ No___ **Remember to use danger sign when selecting classifications**
DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING? Yes___ No___ • For how long? ____ Days	• Count the breaths in one minute. _____ breaths per minute. Fast breathing? • Look for chest indrawing. • Look and listen for stridor/wheeze.	
DOES THE CHILD HAVE DIARRHOEA? Yes ___ No ___ • For how long? _____ Days • Is there blood in the stools?	• Look at the child's general condition.Is the child Lethargic or unconscious? Restless or irritable? • Look for sunken eyes. • Offer the child fluid. Is the child: Not able to drink or drinking poorly? Drinking eargerly, thirsty? • Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?	
DOES THE CHILD HAVE FEVER? (by history/feels hot/temperature 37.5°C or above) Yes___ No___ Decide Malaria Risk: High Low • For how long? _____ Days • If more than 7 days, has fever been present every day? • Has child had measles within the last three months? • If the child has measles now or within the last 3 months:	• Look or feel for stiff neck. • Look for runny nose. Look for signs of MEASLES: • Generalized rash and • One of these: cough, runny nose, or red eyes. • Look for mouth ulcers. If Yes, are they deep and extensive? • Look for pus draining from the eye. • Look for clouding of the cornea.	

DOES THE CHILD HAVE AN EAR PROBLEM? Yes___ No___ • Is there ear pain? • Is there ear discharge? If Yes, for how long? ___ Days • Look for pus draining from the ear. • Feel for tender swelling behind the ear.	
THEN CHECK FOR MALNUTRITION AND ANAEMIA • Loor visible severe wasting. • Look for palmar pallor. Severe palmar pallor? Some palmar pallor? • Look for oedema of both feet. • Determine weight for age. Very Low ___ Not Very Low ___	
CHECK FOR HIV INFECTION HIV tested before (confidential): Mother o positive o negative o unknown Child o positive o negative o unknown pneumonia or Very low weight or persistent diarrhoea or ear discharge or mother or child HIV status known: Yes _____ NO _____ ☐ Pneumonia ☐ Very Low weight for age ☐ Ear discharge ☐ Persistent diarrhoea ☐ Parotid enlargement ☐ Oral thrush ☐ Generalized persistent lymphadenopathy If mother is HIV infected, and child less than 24 months old, decide on infant feeding counselling needs	
CHECK THE CHILD'S IMMUNIZATION STATUS Circle immunizations needed today. BCG DPT1 DPT2 DPT3 OPV 0 OPV 1 OPV 2 OPV Measles	Return for next immunization on: (Date)
ASSESS CHILD'S FEEDING if child has ANAEMIA OR VERY LOW WEIGHT or is less than 2 years old. • Do you breastfeed your child? Yes_____ No _____ If Yes, how many times in 24 hours? ___ times. Do you breastfeed during the night? Yes___ No___ • Does the child take any other food or fluids? Yes___ No ___ If Yes, what food or fluids? _____ How many times per day? _____ times. What do you use to feed the child? _____ If very low weght for age: How large are servings? _____ Does the child receive his own serving? ___ Who feeds the child and how? _____ • During the illness, has the child's feeding changed? Yes _____ No _____ If Yes, how?	FEEDING PROBLEMS
ASSESS OTHER PROBLEMS Ask about mother's own health Time taken:	

MANAGEMENT OF THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

Name: _____ Age: _____ Weight: _____ kg Temperature: _____°C

ASK: What are the child's problems? _____ Initial visit? _____ Follow-up Visit? _____

ASSESS (Circle all signs present)		CLASSIFY
CHECK FOR VERY SEVERE DISEASE AND LOCAL BACTERIAL INFECTION • Is the infant having difficulty in feeding? • Has the infant had convulsions (fits)?	• Count the breaths in one minute. _____ breaths per minute Repeat if 60 breaths or more _____ Fast breathing? • Look for severe chest indrawing. • Fever (temperature 37.5°C or above). • Low body temperature (less than 35.5°C) • Look at the umbilicus. Is it red or draining pus? • Look for skin pustules. • Look at the young infant's movements. Does the infant move only when stimulated? Does the infant not move at all?	Classify all young infants
THEN CHECK FOR JAUNDICE • **When did jaundice first appear?**	• Look for jaundice (yellow eyes or skin) • Look at the young infant's palms and soles. Are they yellow?	
DOES THE YOUNG INFANT HAVE DIARRHOEA?	Yes _____ No _____ • Look at the young infant's general condition. Does the infant move only when stimulated? Does the infant not move at all? Is the infant restless or irritable? • Look for sunken eyes. • Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?	
IF AN INFANT HAS NO INDICATION TO REFER TO HOSPITAL THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT IN A BREASTFED INFANT • Is the infant breastfed? Yes _____ No _____ If Yes, how many times in 24 hours? _____ times	• Determine weight for age. Low ___ Not Low _____ • Look for ulcers or white patches in the mouth (thrush).	

- Does the infant usually receive any other foods or drinks? Yes _____ No _____
  If Yes, how often?
  If yes, what do you use to feed the infant?

ASSESS BREASTFEEDING:

- Has the infant breastfed in the previous hour?

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

- Is the infant able to attach? To check attachment, look for:
  - More areola seen above infant's top lip Yes ___ No ___than below bottom lip
  - Mouth wide open Yes ___ No ___
  - Lower lip turned outwards Yes ___ No ___
  - Chin touching breast Yes ___ No ___ not well attached good attachment
- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?
  not suckling effectively *suckling effectively*

THEN CHECK FOR HIV INFECTION

- Has the mother or infant had an HIV test?
- What was the result?

THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT IN AN INFANT WHO RECEIVES NO BREAST MILK

Which breast-milk substitute?_____

Is enough milk being given in 24 hrs?	yes	no
Correct feed preparation?	yes	no
Any food or fluids other than milk?	yes	no
How is the milk being given?	cup	bottle
Utensils cleaned adequately?	yes	no

- Determine weight for age. Low ___ Not Low _____
- Look for ulcers or white patches in the mouth (thrush).

CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today.

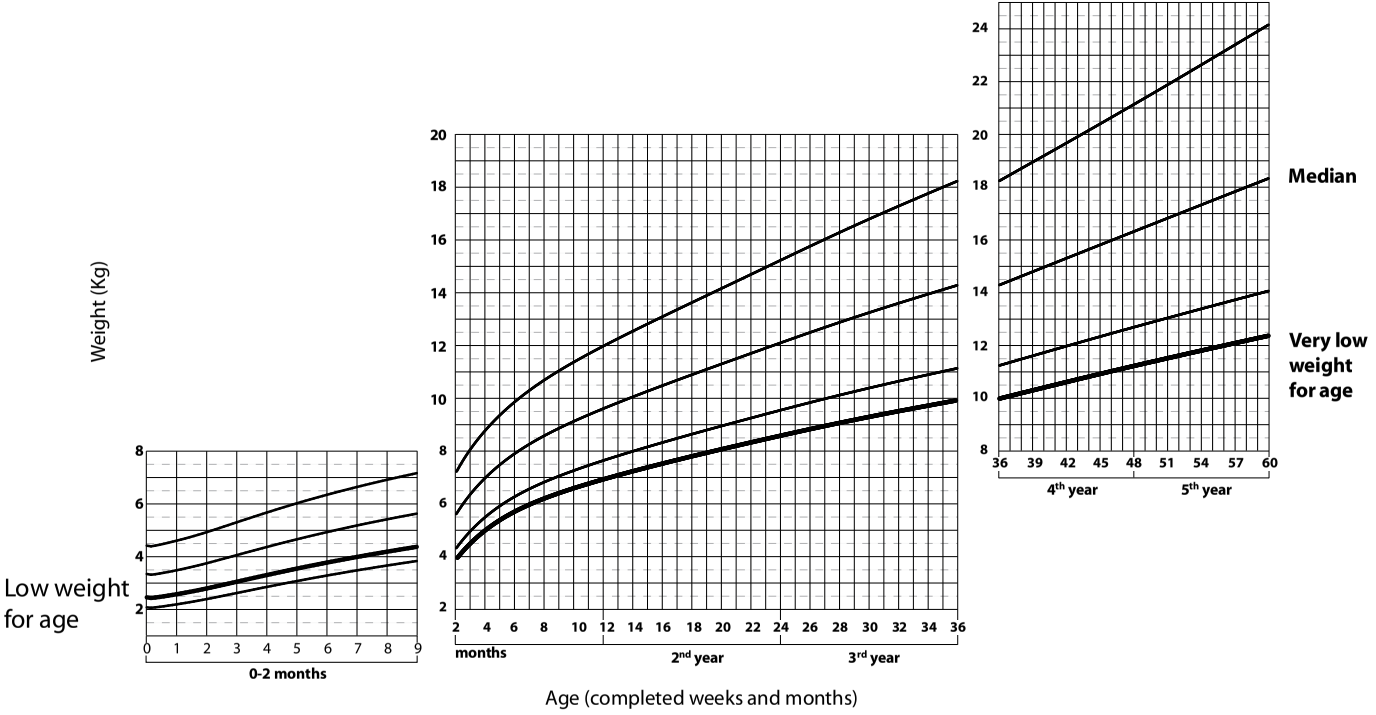
BCG OPV 0
OPV 1 DPT1 + HIB1 Hepatitis B1
OPV 2 DPT2 + HIB2 Hepatitis B2

Return for next immunization on:

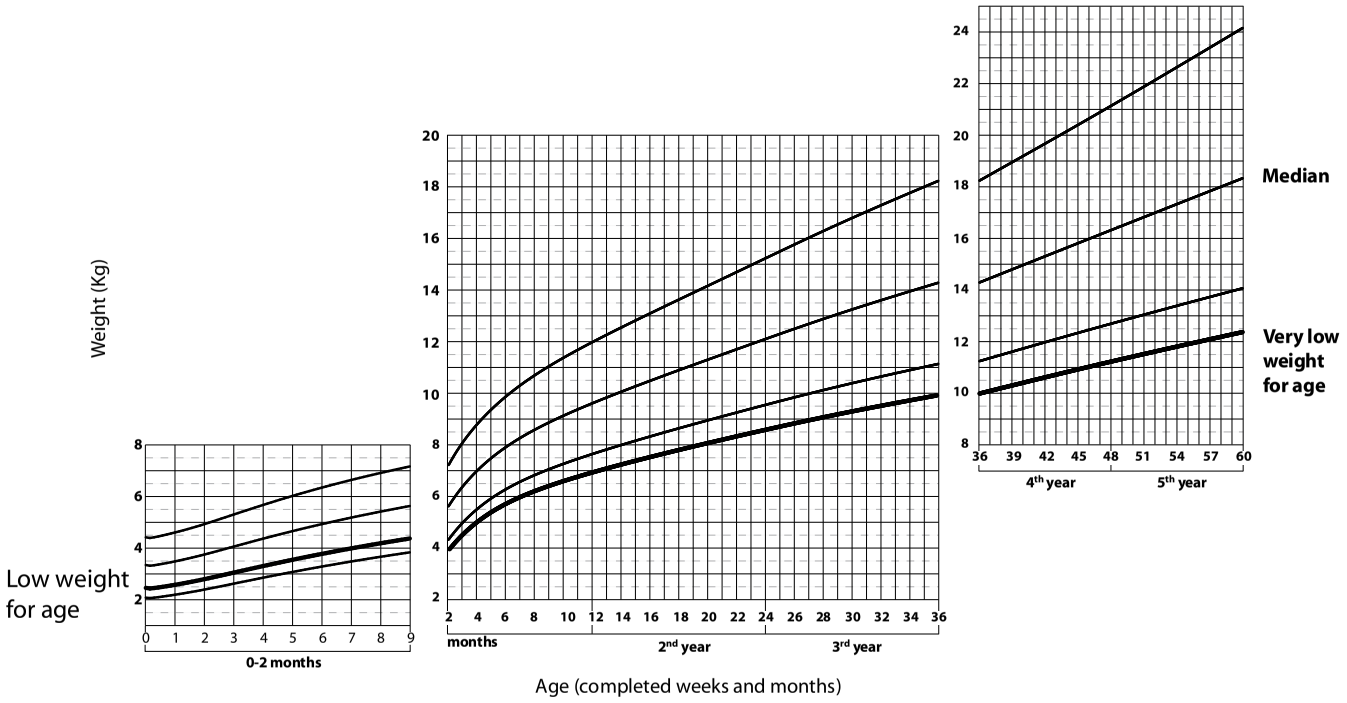
(Date)

ASSESS OTHER PROBLEMS Ask about mother's own health Time taken:

Weight-for-age chart for boys



Weight-for-age chart for girls



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