INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS





Integrated Management of Childhood Illness: management of the sick young infant aged up to 2 months. IMCI chart booklet ISBN 978-92-4-151636-5

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INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

Chart Booklet

MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS

2019





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RAPIDLY APPRAISE ALL WAITING INFANTS. ASK THE MOTHER WHAT THE YOUNG INFANT'S PROBLEMS ARE.

- · Determine whether this is an initial or follow-up visit for this problem.
 - If a follow-up visit, use the follow-up instructions.
 - If an initial visit, assess the young infant as follows:

USE ALL BOXES THAT MATCH THE INFANT'S SIGNS AND SYMPTOMS TO CLASSIFY THE ILLNESS.

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

			SIGNS	CLASSIFY	(Urgent pre-referral treatment is shown in bold.)		
ASK: • Is the infant having difficulty in feeding? • Has the infant had convulsions (fits)?	Is the infant having • Count the breaths in difficulty in feeding? 1 minute. Has the infant had Repeat the count if it is		infant having Ity in feeding? It infant had Isions (fits)? Look for severe chest indrawing. Look at the young infant's movements.	ALL YOUNG	 Any one or more of the following signs: Not able to feed at all or not feeding well or Convulsions or Severe chest indrawing or High body temperature (38°C* or above) or Low body temperature (less than 35.5°C*) or Movement only when stimulated or no movement at all or Fast breathing (60 breaths per minute or more) in infants less than 7 days old 	POSSIBLE SERIOUS BACTERIAL INFECTION or VERY SEVERE DISEASE	 → Give first dose of intramuscular antibiotics. → Treat to prevent low blood sugar. → Advise the mother how to keep the infant warm on the way to the hospital. → Refer URGENTLY to hospital. OR → If referral is REFUSED or NOT FEASIBLE, treat in the clinic until referral is feasible. (See chart on p. 13)
	 because inclusion in the model of the model		Fast breathing (60 breaths per minute or more) in infants 7–59 days old	PNEUMONIA	 → Give oral amoxicillin for 7 days. → Advise the mother to give home care. → Follow up in 3 days. 		
	 Does the infant move only when stimulated but then stops? Does the infant not move at all? Look at the umbilicus. Is it red or draining pus? 		Umbilicus red or draining pus Skin pustules	LOCAL BACTERIAL INFECTION	 → Give amoxicillin for 5 days. → Teach the mother how to treat local infections at home. → Advise the mother to give home care. → Follow up in 2 days 		
* Thresholds based on ax	Look for skin pustules. <i>killary temperature</i>		No signs of bacterial infection or very severe disease	INFECTION UNLIKELY	→ Advise the mother on giving home care to the young infant.		

IDENTIFY TREATMENT

THEN, CHECK FOR JAUNDICE.

			SIGNS	CLASSIFY	(Urgent pre-referral treatment is shown in bold.)
ASK: • When did jaundice first appear?	LOOK AND FEEL:Look for jaundice (yellow skin).Look at the young infant's palms and soles. Are they yellow?	Classify JAUNDICE	 Any jaundice in an infant aged less than 24 hours or Yellow palms or soles at any age 	SEVERE JAUNDICE	 → Treat to prevent low blood sugar. → Refer URGENTLY to hospital. → Advise the mother how to keep the infant warm on the way to the hospital.
			 Jaundice appearing after 24 hours of age <i>and</i> Palms or soles not yellow 	JAUNDICE	 → Advise the mother to give home care. → Advise the mother to return immediately if the infant's palms or 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 on giving home care to the young infant.

IDENTIEV TREATMENT

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

		SIGNS	CLASSIFY	(Urgent pre-referral treatment is shown in bold.)
 IF YES, LOOK AND FEEL: Look at the young infant's general condition: Is the infant restless and irritable? Infant's movements Does the infant move only when stimulated but then stops? Does the infant not move at all? Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 	Classify DIARRHOEA FOR DEHYDRATION.	 Two of the following signs: 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 the mother giving frequent sips of oral rehydration salts (ORS) on the way. Advise the mother to continue breastfeeding. → Advise the mother how to keep the infant warm on the way to the hospital.
* What is diarrhoea in a young infant? A young infant has diarrhoea if the stools have changed from the usual pattern and are frequent and watery (more water than faecal matter). The frequent semi-solid stools of a breastfed baby are not diarrhoea.		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 the infant also has another severe classification: - Refer URGENTLY to hospital with the mother giving frequent sips of ORS on the way. - Advise the mother to continue breastfeeding. → Advise the mother when to return immediately. → Follow-up in 2 days if no improvement.
		 Not enough signs to classify as some or severe dehydration. 	NO DEHYDRATION	 → Give fluids and breastmilk to treat diarrhoea at home (Plan A). → Advise mother when to return immediately. → Follow-up in 2 days if no improvement.

IDENTIFY TREATMENT

THEN, CHECK THE YOUNG INFANT FOR HIV INFECTION.

		SIGNS	CLASSIFY	IDENTIFY TREATMENT		
ASK: • Has the mother had an HIV test? If yes: – Serological test POSITIVE or NEGATIVE? • Has the infant had an HIV test?	Classify HIV INFECTION by test results	Infant has positive virological test	CONFIRMED HIV INFECTION	 → Give cotrimoxazole prophylaxis from age 4–6 weeks. → Refer or give antiretroviral treatment and HIV care. → Refer or start the mother on antiretrovirals if not on treatment. → Advise the mother on home care. → Follow-up as per national guidelines. 		
If yes: - Virological test POSITIVE or NEGATIVE? - Serological test POSITIVE or NEGATIVE? If no: - Mother or infant HIV test not done If the mother is HIV positive and the infant does NOT have a positive virological test, ASK: - Is the infant breastfeeding now?				 Infant has positive serological test or Mother is HIV positive AND infant who is breastfeeding or stopped less than 6 weeks ago has a negative virological test. or Mother is HIV positive, and young infant not yet tested. 	HIV EXPOSED: POSSIBLE HIV INFECTION	 → Give cotrimoxazole prophylaxis from age 4–6 weeks. → Start or continue antiretroviral prophylaxis according to risk assessment. → Conduct a virological test for the infant. → Refer or start the mother on antiretrovirals if not on treatment. → Advise the mother on home care. → Follow up regularly as per national guidelines.
 Was the young infant breastfeeding at the time of the test or before it? Is the mother on treatment and the infant on antiretroviral prophylaxis? 		HIV test not done for mother or infant	HIV INFECTION STATUS UNKNOWN	 Initiate HIV testing and counselling. Conduct HIV test for the mother and if positive, a virological test for the infant. Conduct virological test for the infant if the mother is not available. 		
		Negative HIV test for the mother or negative virological test for the infant	HIV INFECTION UNLIKELY	 → Treat, counsel and follow up any infections. → Advise the mother about feeding and about her own health. 		

THEN, CHECK FOR A FEEDING PROBLEM OR LOW WEIGHT FOR AGE IN BREASTFED INFANTS. See charts on pages 27 and 28.

(If infant has no indication to refer to hospital.)

(in infant has no indication to refer	to nospital.)		SIGNS	CLASSIFY	IDENTIFY TREATMENT
ASK: • Is the infant breastfed? If yes, how many times in 24 hours? • Does the infant receive any other foods or drink?	LOOK AND FEEL: • Determine weight for age. – Weight less than 2 kg? – Weight for age less than	Classify FEEDING	• Weight < 2 kg in infants less than 7 days	VERY LOW WEIGHT FOR AGE	 → REFER to hospital for Kangaroo mother care. → Treat to prevent low blood sugar. → Advise the mother to keep the young infant warm on the way to hospital.
 If yes, how often? If yes, how often? What do you use to feed the infant? ASSESS BREASTFE Has the infant breastfed in the previous hour, to her breast. Observe the breastfeed for 4 mm (If the infant was fed during the previous hour, to her breast. Observe the breastfeed for 4 mm (If the infant was fed during the previous hour, can wait and tell you when the infant is willing. Is the infant well attached? Good attachment Poor attachment TO CHECK ATTACHMENT, LOOK FOR: More areola seen above infant's top lipp Mouth wide open Lower lip turned outwards Chin touching breast (All of these signs should be present if the 	ur? ask the mother to put the infant inutes. ur, ask the mother whether she g to feed again.) <i>No attachment at all</i> than below bottom lip		 Not well attached to breast <i>or</i> Not sucking effectively <i>or</i> Less than 8 breastfeeds in 24 hours, <i>or</i> Receives other foods or drink, <i>or</i> Weight < -2 Z score, <i>or</i> Thrush (ulcers or white patches in mouth) 	FEEDING PROBLEM and/or LOW WEIGHT FOR AGE	 If not well attached or not sucking effectively, teach correct positioning and attachment. If not able to attach well immediately, teach the mother to express breastmilk and feed from a cup. If breastfeeding less than 8 times in 24 hours, advise the mother to increase the frequency and to breastfeed as often and for as long as the infant wants, day and night. If the infant is receiving other foods or drinks, counsel the mother to increase breastfeeding, reduce other foods and drink and use a cup. If not breastfeeding at all: Refer for breastfeeding counselling and possible relactation. Advise about correct preparation of breastmilk substitutes and use of a cup. Advise the mother on how to feed and keep the low-weight infant warm at home. If the infant has thrush, teach the mother to treat thrush at home. Advise the mother on giving home care to the young infant. Follow up any FEEDING PROBLEM or thrush in 2 days. Follow up infants who have LOW WEIGHT FOR AGE within 14 days.
Is the infant sucking effectively (that is, slow Sucking effectively Not sucking effectively → Clear a blocked nose if it interferes with br	Not sucking at all		• Weight ≥ -2 Z score and no other sign of inadequate feeding.	NO FEEDING PROBLEM	 → Advise mother on giving home care to the young infant. → Praise the mother for feeding the infant well.

THEN, CHECK FOR A FEEDING PROBLEM OR LOW WEIGHT FOR AGE IN INFANTS NOT RECEIVING BREASTMILK.

(Use this chart when an HIV-positive mother has chosen not to breastfeed.)

			SIGNS	CLASSIFY	IDENTIFY TREATMENT
ASK:What milk are you giving?How many times during the day and night?	LOOK, LISTEN, FEEL: • Determine the weight for age. – Weight less than	Classify FEEDING	• Weight < 2 kg in infants less than 7 days	VERY LOW WEIGHT FOR AGE	 → REFER to hospital for Kangaroo mother care. → Treat to prevent low blood sugar. → Advise the mother on keeping the young infant warm on the way to hospital.
 How much do you give at each feed? How do you prepare the milk? Let the mother demonstrate or explain how she prepares a feed and how she gives it to the infant. How is the milk given? Cup or bottle? How do you clean the feeding utensils? 	2 kg? – Weight for age less than -2 Z score? • Look for ulcers or white patches in the mouth (thrush).		 Giving inappropriate replacement feeds, or Giving insufficient replacement feeds, or Milk incorrectly or unhygienically prepared, or Using a feeding bottle, or An HIV-positive mother giving both breastmilk and other feeds before 6 months, or Weight for age < -2 Z score 	FEEDING PROBLEM and/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 how to treat it at home. → Follow-up FEEDING PROBLEM or thrush in 2 days. → Follow up LOW WEIGHT FOR AGE in 7 days.
 Do you give any breastmilk at all? What foods and fluids do you give in addition to replacement feeds? 			 Weight ≥ -2 Z scores and no other sign of inadequate feeding 	NO FEEDING PROBLEM	 → Advise mother to continue feeding, and ensure good hygiene. → Praise the mother for feeding the infant well.

THEN, CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS.

	AGE	VACCINES*				
IMMUNIZATION SCHEDULE:	Birth	BCG**	Hep B0	OPV0		
SCHEDULE:	6 weeks	DPT+HIB-1	Hep B1	OPV-1	Rotavirus-1	Pneumococcal conjugate vaccine (PCV) 1

- * Vaccines should be given in line with national policy.
- ** Young infants who are HIV positive or of unknown HIV status with symptoms consistent with HIV infection should not be given BCG vaccine.

- → Give all missed doses on this visit.
- → Immunize sick infants, unless they are being referred.
- → Advise the caretaker when to return for the next dose.

ASSESS OTHER PROBLEMS

ASSESS THE MOTHER'S HEALTH NEEDS

Nutritional status, anaemia, contraception. Check hygiene practices.

→ Give first doses of intramuscular gentamicin and ampicillin.

For possible serious bacterial infection or very severe disease*

- Give intramuscular gentamicin: 5-7.5 mg/kg body weight per day.
- Give intramuscular ampicillin: 50 mg/kg body weight.
- * Referral is the best option for a young infant classified as having POSSIBLE SERIOUS BACTERIAL INFECTION or VERY SEVERE DISEASE. If, after counselling and problem-solving, referral is refused or not feasible and if on further classification the infant has CRITICAL ILLNESS, continue to give intramuscular gentamicin once daily AND intramuscular ampicillin twice daily until referral is feasible or for 7 days if referral is still not feasible (see p. 13).

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

AMPICITIIN

\mathbf{V}

→ 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 body weight) of expressed breastmilk before departure. If expressed breastmilk cannot be given, give 20–50 mL (10 mL/kg body weight) of sugar water. (To make sugar water: Dissolve 4 level teaspoons of sugar (20 g) in a 200-mL cup of clean water.)

→ If the young infant is not able to swallow:

Give 20–50 mL (10 mL/kg body weight) 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.

- → Hold the infant in skin-to-skin contact. OR
- → Keep the young infant clothed or covered as much as possible all the time, especially in cold weather. Add extra clothing, including hat, gloves and socks. Wrap the infant in a soft, dry cloth, and cover with a blanket.

→ Refer urgently.

- → Write a referral note for the mother to take to the hospital (p. 30).
- → If the infant also has SOME DEHYDRATION OR SEVERE DEHYDRATION and is able to drink:
 - Give the mother some prepared ORS, and ask her to give frequent sips of ORS on the way to the hospital.
 - · Advise the mother to continue breastfeeding.

TEACH THE MOTHER TO GIVE ORAL MEDICINES AT HOME.

Follow the instructions below to teach the mother about each oral medicine to be given at home, and the instructions listed with the dosage table for each medicine.

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

→ Give oral amoxicillin.

- For pneumonia: Give twice daily for 7 days.
- For local bacterial infection: Give twice daily for 5 days.

AMOXICILLIN - Give twice daily

WEIGHT (kg)	Dispersible tablet (125 mg) per dose	Dispersible tablet (250 mg) per dose	Syrup (125 mg in 5 mL) per dose (mL)
1.5-2.4	1	1⁄2	5
2.5-3.9	1	1/2	5
4.0-5.9	2	1	10

→ Give oral cotrimoxazole*

• For prophylaxis in confirmed HIV infection or HIV exposed:

Weight, 3.0–5.9 kg	COTRIMOXAZOLE (trimethoprim + sulfamethoxazole) Give once a day starting at 4 weeks of age.
Syrup (40/200 mg/5 mL)	Paediatric tablet (single strength 20/100 mg)
2.5 mL	1 tablet

^{*} Do not give cotrimoxazole to infants less than 1 month of age, premature or jaundiced.

→ Immunize every sick young infant as necessary.

Teach the mother to treat local infections at home.

- → Explain how the treatment is given.
- → Watch her as she gives 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 give 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 or cord with full-strength gentian violet (0.5%).
- → Wash hands again.

To treat thrush (ulcers or white patches in mouth):

The mother should give 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, give extra fluids and continue feeding.

If the young infant has NO DEHYDRATION, use Plan A. If the young infant has SOME DEHYDRATION, use Plan B.

PLAN A: TREAT DIARRHOEA AT HOME.

Counsel the mother on home treatment for the young infant with diarrheoa:

- 1. Give extra fluids.
- 2. Continue exclusive breastfeeding.
- 3. Know when to return to hospital.

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

- → Tell the mother to:
 - Breastfeed frequently and for longer at each feed.
 - · Give ORS or clean water in addition to breastmilk.

It is especially important to give ORS at home when the young infant:

- has been treated according to Plan B or Plan C during this visit
- 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

Tell the mother to:

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

2. CONTINUE EXCLUSIVE BREASTFEEDING.

3. KNOW WHEN TO RETURN.

PLAN B: TREAT SOME DEHYDRATION WITH ORAL REHYDRATION SALTS (ORS).

At the clinic, give the recommended amount of ORS over 4 hours. DETERMINE THE AMOUNT OF ORS TO GIVE DURING THE FIRST 4 HOURS:

WEIGHT	< 6 kg
AGE	Up to 4 months
ORS	200–450 mL

Note: The approximate amount of ORS required (in mL) is calculated by multiplying the young infant's weight (in kg) by 75.

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

→ SHOW THE MOTHER HOW TO GIVE ORS SOLUTION.

- Give frequent small sips from a cup.
- If the young infant vomits, wait 10 minutes. Then continue, but more slowly.
- Continue breastfeeding whenever the young infant wants.
- → AFTER 4 HOURS:
 - Reassess the young infant, and classify him or her for dehydration.
 - · Select the appropriate plan to continue treatment.
 - Begin breastfeeding the young infant in the clinic.

→ IF THE MOTHER HAS TO LEAVE BEFORE COMPLETING TREATMENT:

- Show her how to prepare ORS solution at home.
- · Show her how much ORS to give to finish the 4-hour treatment at home.
- Give her enough ORS packets to complete rehydration. Also give her 2 packets as recommended in Plan A.

Explain the rules of home treatment for the young infant:

1. GIVE EXTRA FLUIDS.

2. CONTINUE EXCLUSIVE BREASTFEEDING.

3. KNOW WHEN TO RETURN.

PLAN C: TREAT SEVERE DEHYDRATION QUICKLY.

Follow the arrows. If the answer is Yes, go across. If the answer is No, go down.



IF REFERRAL IS REFUSED OR NOT FEASIBLE, further assess and classify the sick young infant with POSSIBLE SERIOUS BACTERIAL INFECTION or VERY SEVERE DISEASE.

SIGNS	CLASSIFY	IDENTIFY TREATMENT
The sick young infant has any one of the following: • Convulsions • Not able to feed at all • No movement on stimulation • Weight < 2 kg	CRITICAL ILLNESS	 → Reinforce URGENT referral. Explain to the caregiver that the infant is very sick and must be urgently referred for hospital care. → If referral is still not feasible, give once-daily intramuscular gentamicin and twice-daily intramuscular ampicillin until referral is feasible or for 7 days if referral is still not feasible. → Treat to prevent low blood sugar. → Teach the mother how to keep the young infant warm at home. → Advise the mother to return daily for the injections. → Treat any other classification of illness in the young infant. → Reassess the young infant at each visit.
The sick young infant has any one of the following: • Not feeding well on observation • Temperature 38 °C or more • Temperature less than 35.5 °C • Severe chest indrawing • Movement only when stimulated	CLINICAL SEVERE INFECTION	 → Give once-daily intramuscular gentamicin* and oral amoxicillin for 7 days. → Treat to prevent low blood sugar. → Teach the mother how to keep the young infant warm at home. → Advise the mother to return for the next injection the following day. → Treat any other classification of illness in the young infant. → Reassess the young infant at each visit.
The sick young infant has: • Fast breathing (60 breaths per minute or more) in infants less than 7 days old	SEVERE PNEUMONIA	 → Give oral amoxicillin for 7 days. → Teach the mother how to give oral amoxicillin twice daily. → Treat any other classification of illness in the young infant. → Advise the mother to return for follow-up in 3 days.

* Countries may decide to treat with intramuscular gentamicin for 7 days or 2 days. If a country chooses 2 days, the mandatory follow-up visit is in 3 days.

IF REFERRAL IS REFUSED OR NOT FEASIBLE, TREAT THE SICK YOUNG INFANT.

→ Give intramuscular gentamicin and ampicillin.

• For CRITICAL ILLNESS: Give gentamicin at 5–7.5 mg/kg body weight per day once daily and ampicillin 50 mg/kg body weight twice daily until referral is possible or for 7 days.

• For CLINICAL SEVERE INFECTION: Give gentamicin at 5-7.5 mg/kg body weight per day once daily for 7 days

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

ANDICULIN

→ Give oral amoxicillin.

For CLINICAL SEVERE INFECTION

• For SEVERE PNEUMONIA (fast breathing alone in infants less than 7 days of age)

	75 tı	AMOXICILLIN o 100 mg/kg/day divided into 2 c Give twice daily for 7 days	loses
WEIGHT (kg)	Dispersible tablet (250 mg) per dose	Dispersible tablet (125 mg) per dose	Syrup (125 mg in 5 mL) per dose
1.5-2.4	1/2 tablet	1 tablet	5 mL
2.5-3.9	1/2 tablet	1 tablet	5 mL
4.0-5.9	1 tablet	2 tablets	10 mL

Feeding recommendations

Feeding recommendations FC during sickness and health, incl children on antiretroviral	uding HIV EXPOSED		iving no brea	endations for young infan st milk when an HIV-posit chosen not to breastfeed	
Newborn, birth to 1 week	1 week to 6 months		U	p to 6 months	
 Immediately after birth, put your baby in skin-to-skin contact with you. Allow your baby to take the breast within the first hour. Give your baby colostrum, the first yellowish, thick milk. It protects the baby from many Illnesses. Breastfeed day and night, as often as your baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk. If your baby is small (low birth weight), feed him or her at least every 	 Breastfeed as often as your child wants. Look for signs of hunger, such as beginning to fuss, sucking fingers or moving lips. Breastfeed day and night whenever your baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk. Do not give other foods or fluids. Breast milk is all your 	Other food • Prepare comilk within • Cup feeding utensils withing	ds or fluids are prrect strength n 2 hours. Disc ng is safer tha ith hot soapy		e. Use cup and
2 to 3 hours. Wake the baby for feeding after 3 hours, if she or he does not wake.DO NOT give other foods or fluids. Breast milk is all your baby needs.	• Do not give other roods or fluids. Breast milk is all your baby needs.	Give the foll	lowing amoun Age (months)	ts of formula 7–8 times per Approximate amount and number of times per day	r day:
This is especially important for infants of HIV-positive mothers. Mixed feeding increases the risk of mother-to-child transmission of HIV over			0–1	60 ml × 8	
that with breastfeeding.			1–2	90 ml × 7	

→ 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 the breast with the nose opposite 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 the mother how to help the infant attach to the nipple. She should:
 - touch her infant's lips with her nipple,
 - wait until her infant's mouth is open 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 sucking. If the attachment or sucking is not good, try again.

→ Teach the mother how to express breastmilk.

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 underside 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 round the breast, keeping her fingers the same distance from the nipple. She should be careful not to squeeze the nipple, to rub the skin or move her thumb or finger on the skin.
- → Express one breast until the milk just drips, and then express the other breast until the milk just drips.
- → Alternate 5 or 6 times between breasts for at least 20–30 minutes.
- → Stop expressing when the milk no longer flows but drips from the start.

→ Counsel the caretaker or HIV-positive mother who is not breastfeeding.

The mother should have received full counselling before making the decision not to breastfeed.

- Ensure that the mother or caretaker has an adequate supply of appropriate breastmilk substitute.
- Ensure that the mother or caretaker knows how to prepare the 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 1 hour of preparation.
- Make sure that the mother or caretaker understands that mixing breastfeeding and replacement feeding may increase the risk of HIV infection and should not be done.

→ Teach the mother how to feed from a cup.

- Put a cloth on the infant's front to protect his or her clothes, as some milk may 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.



- Follow the instructions on the container for making each feed and how frequently to give it every 24 hours.
- Always use the marked cup or glass to measure water and the scoop to measure the formula powder.
- 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 quickly become contaminated.
- Feed the baby from a cup. Discard any unused formula, give it to an older child, or drink it yourself.

· Wash the utensils.

→ Teach the mother how to keep the low-weight infant warm at home.

- → Keep the young infant in the same bed as the mother.
- → Keep the room warm (at least 25°C) with a home heating device, and make sure there is no draught of cold air.
- → Avoid bathing the low-weight infant. When washing or bathing the infant, 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 between the mother's breasts. Keep the infant's head turned to one side.
 - Cover the infant with the mother's clothes (and an additional warm blanket in cold weather).
- → When the infant is not in skin-to-skin contact, keep him or her clothed or covered as much as possible at all times. Dress the young infant with extra clothing, including hat and socks, loosely wrap in a soft dry cloth, and cover with a blanket.
- → Check frequently if the hands and feet are warm. If they are cold, re-warm the infant by skin-to-skin contact.
- → Breastfeed (or give expressed breastmilk by cup) the infant frequently.

→ Advise the mother on giving home care to the sick young infant.

1. EXCLUSIVELY BREASTFEED THE YOUNG INFANT (for breastfeeding mothers).

- Give only breastmilk to the young infant.
- Breastfeed frequently, as often and for as long as the infant wants, day and night, when sick and healthy.

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

- In cool weather, cover the infant's head and feet, and add extra clothing.

3. KNOW WHEN TO RETURN:

Follow-up visits	
If the infant has:	Return for first follow-up in:
• JAUNDICE	1 day
• DIARRHOEA • FEEDING PROBLEM • THRUSH • LOCAL BACTERIAL INFECTION	2 days
PNEUMONIA SEVERE PNEUMONIA when referral is refused or not feasible	3 days
LOW WEIGHT FOR AGE in an infant not receiving breastmilk	7 days
LOW WEIGHT FOR AGE in breastfed infant	14 days
CONFIRMED HIV INFECTION or EXPOSED TO HIV: POSSIBLE HIV INFECTION	Per national guidelines

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
- → Develops fast breathing
- → Develops difficult breathing
- → Palms or soles appear yellow

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

→ CRITICAL ILLNESSS WHEN REFERRAL WAS REFUSED OR NOT FEASIBLE

At each contact for injection of antibiotics:

- → Explain again to the caregiver that the infant is very sick and should urgently be referred for hospital care.
- → Reassess the young infant as described on p. 13.
- → Treat any new problem.
- + If referral is still not feasible, continue giving once-daily intramuscular gentamicin and twice-daily intramuscular ampicillin until referral is feasible or for 7 days.

→ CLINICAL SEVERE INFECTION WHEN REFERRAL WAS REFUSED OR NOT FEASIBLE*

If a 2-day gentamicin regimen is used:

At each contact for injection:

- → Reassess the young infant as described on p. 13.
- → After 1 day: If the young infant is improving, complete the 2 days of treatment with intramuscular gentamicin. Ask the mother to continue giving the oral amoxicillin twice daily until all the tablets are finished.
- → Ask the mother to bring the young infant back on day 4 of treatment (3 days after the initial visit)

If a 7-day gentamicin regimen is used:

- → At each contact for injection:
- → Reassess the young infant as described on p. 13.
- + If the young infant is improving, complete the 7 days of treatment with intramuscular gentamicin. Ask the mother to continue giving the oral amoxicillin twice daily until all the tablets are finished.
- → Refer the young infant urgently to hospital if:
 - The infant shows any sign of CRITICAL ILLNESS or
 - · Any new sign of CLINICAL SEVERE INFECTION appears while on treatment or
 - There is no improvement on day 4 after 3 full days of treatment or
 - Any sign of CLINICAL SEVERE INFECTION is still present at the contact for the 7th intramuscular injection of gentamicin.

*Depending on whether the national policy is for 2 or 7 days of intramuscular gentamicin

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

ASSESS EVERY YOUNG INFANT FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR SEVERE DISEASE, PNEUMONIA OR LOCAL BACTERIAL INFECTION DURING FOLLOW-UP VISITS.

→ PNEUMONIA OR SEVERE PNEUMONIA

After 3 days*:

Reassess the young infant for POSSIBLE SERIOUS BACTERIAL INFECTION or PNEUMONIA or LOCAL BACTERIAL INFECTION as described on p. 1.

Treatment

- → Refer urgently to hospital if:
 - The infant becomes worse or
 - Any new sign of POSSIBLE SERIOUS BACTERIAL INFECTION or VERY SEVERE DISEASE appears while on treatment.
- → If the young infant is improving, ask the mother to continue giving the oral amoxicillin twice daily until all the tablets are finished.
- \rightarrow Ask the mother to bring the young infant back in 4 more days.

→ 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 the same or is worse**, refer the infant to hospital. If **pus and redness are improved**, tell the mother to complete 5 days of antibiotic treatment and to continue treatment of the local infection at home.
- → If skin pustules are the same or worse, refer the infant to hospital. If they are improved, tell the mother to complete 5 days of antibiotic treatment and to continue treating the local infection at home.

→ JAUNDICE

After 1 day:

LOOK for jaundice. Are the palms or soles yellow?

- → If the **palms or soles are yellow**, refer the infant urgently to hospital.
- → If the palms or soles are not yellow but jaundice has not decreased, advise the mother about home care and ask her to return for follow-up again the next day.
- → If the jaundice has **started to decrease**, reassure the mother, and ask her to continue home care. Ask her to return for follow-up when the infant is 3 weeks of age.
- → After 3 weeks of age: If jaundice continues beyond 3 weeks of age, refer the young infant to hospital for further assessment.

→ DIARRHOEA

After 2 days:

ASK: Has the diarrhoea stopped?

- → If the diarrhoea has **not stopped**, assess, classify and treat the young infant for diarrhoea (see p. 3).
- → If the diarrhoea has **stopped**, tell the mother to continue exclusive breastfeeding.

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

→ CONFIRMED HIV INFECTION OR HIV EXPOSED

• A young infant classified as having CONFIRMED HIV INFECTION or HIV EXPOSED should return for follow-up visits regularly as per national guidelines. Follow the instructions for follow-up care of children aged 2 months to 5 years.

→ FEEDING PROBLEM

After 2 days:

Reassess feeding. Check for a feeding problem or low weight for age as described on pp. 5 and 6.

- → Ask about any feeding problems found on the initial visit.
- → Counsel the mother about any new or continuing feeding problems. If you advise 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.

Exceptions:

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

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

→ LOW WEIGHT FOR AGE

After 14 days (or 7 days if the infant is not receiving breastmilk):

Weigh the young infant and determine whether he or she still has a low weight for age.

Reassess feeding (pp. 5 and 6).

- → If the infant no longer has a low weight for age, praise the mother and encourage her to continue.
- → If the infant still has a low weight for age but is feeding well, praise the mother, and ask her to have her infant weighed again within 1 month or when she returns for immunization.
- → If the infant still has a low weight for age and still has a feeding problem, counsel the mother about feeding, and ask her to return again in 14 days (or when she returns for immunization, if within 14 days). Continue to see the young infant every few weeks until he or she is feeding well and gaining weight regularly or no longer has a low weight for age.

Exceptions:

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

→ THRUSH

After 2 or 3 days:

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

Reassess feeding (pp. 5 and 6).

- → If the thrush is worse or the infant has problems with attachment or sucking, refer to hospital.
- → If the thrush is the same or better and the infant is feeding well, continue half-strength gentian violet for a total of 7 days.

Name:	
ASSESS (Circle all signs present)	CLASSIFY
CHECK FOR POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE or PNEUMONIA or LOCAL BACTERIAL INFECTION	
 Is the infant having frequent in one minute	
CHECK FOR JAUNDICE • Is skin yellow? And infant is less than 24 hours of age? • Are the palms or soles yellow?	
DOES THE YOUNG INFANT HAVE • Look at the young infant's general condition. DIARRHOEA? Is the infant restless and irritable? Ves No Types, ASK: Does the infant more only when stimulated? Does the infant not move at all? Look for sunken eyes. Pinch the skin of the abdomen. Does it go back: Pinch the skin of the abdomen. Does it go back:	
CHECK FOR HIV INFECTION ASK: HIV status of the mother? Positive Negative Unknown HIV serological test of the infant? Positive Negative Unknown HIV virology test of the infant? Positive Negative Unknown	
THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE • Is the infant breastfed? YesNo • Determine weight for age. • If Yes, how many times in 24 hrs?times • Very low weight for age (<2 kg)	
If the infant has any difficulty feeding, is feeding < 8 times in 24 hours, is taking any other food or drinks, or is low weight for age, AND has no indications to refer urgently to hospital: ASEES BREASTFEEDNG: • Has the infant breastfed in the	
CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS Circle immunizations needed today.	Return for next immunization on:
V0 DPT1+Hib1+Hep B1 OPV-1 Rotavirus-1 PCV-1	
ASSESS OTHER PROBLEMS: COUNSEL THE MOTHER ABOUT HER OWN HEALTH	

RECORD ACTIONS AND TREATMENTS HERE

Always remember to counsel the mother.

Teach her the signs for her to return with the infant immediately. Give any immunizations and feeding advice required today. Ask the mother to return for follow-up on day

Weight-for-age BOYS

Birth to 6 months (z-scores)





WHO Child Growth Standards

Weight-for-age GIRLS

Birth to 6 months (z-scores)





WHO Child Growth Standards

REFERRAL NOTE FOR THE SICK YOUNG INFANT	ICK YOUNG INFANT
Infant's name: Famil	Family name:
Caregiver's name: Ag	Age of infant: Temperature:
Address or community:	
Tick $ \overline{oldsymbol{arepsilon}}$ the signs present that are the reason for referral of the young infant.	ral of the young infant.
Reasons for referra	or referral
POSSIBLE SERIOUS BACTERIAL INFECTION OR VERY SEVERE DISEASE	EVERE DISEASE
 Unable to feed at all or not feeding well Convulsions 	
Severe chest indrawing	
\Box Temperature 38 $$ °C or more	
□ Temperature 35.5 °C or less	
\Box Movement only when stimulated	
No movement at all	
\Box Fast breathing (60 breaths per minute or more) in infants less than 7 days old	infants less than 7 days old
SEVERE JAUNDICE	
\Box Any jaundice in infant aged less than 24 hours	
\Box Yellow palms or soles at any age	
SEVERE DEHYDRATION	
🗆 Sunken eyes	
Skin pinch goes back very slowly	
VERY LOW WEIGHT	
□ Weight less than 2.0 kg	
Pre-referral treatments given:	
Comments	
Date and time of referral:	
Referred by:	
(Name of facility a	(Name of facility and health worker)



For more information, please contact:

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