

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS



Department of Child and Adolescent Health and Development (CAH)

CHILD AGED 2 MONTHS UP TO 5 YEARS

ASSESS AND CLASSIFY THE SICK CHILD

Assess, Classify and Identify Treatment

Check for General Danger Signs	
Then Ask About Main Symptoms:	
Does the child have cough or difficult breathing?	2
Does the child have diarrhoea?	
Does the child have fever?	4

TREAT THE CHILD

Teach the mother to give oral drugs at home:

Ciprofloxacin	8
Iron	9
Co-artemether	9
Bronchodilator	9

Teach the Mother to Treat Local Infections at Home

Clear the ear by dry wicking and give eardrops	.10
Treat for mouth ulcers and thrush	.10
Soothe throat, relieve cough with safe remedy	.10
Treat eye infection	10

Give Preventive Treatments in Clinic

Vitamin A	11
Mebendazole	.11

Give Emergency Treatment in Clinic only

Quinine for severe malaria	.12
Intramuscular Antibiotic	.12
Diazepam for convulsions	12
Treat low blood sugar	

TREAT THE CHILD, continued

Give Extra Fluid for Diarrhoea and Continue Feeding

Plan A: Treat for Diarrhoea at Home14	ł
Plan B: Treat for Some Dehydration with ORS 14	ļ
Plan C: Treat for Severe Dehydration Quickly 15	5

Give Follow-up Care

Pneumonia	16
Dysentery	16
Persistent diarrhoea	16
Malaria	17
Fever- malaria unlikely	17
Measles with eye or mouth complications	17
Ear Infection	
Feeding problem	18
Anaemia	
Pallor	18
Very Low Weight	18
Severe uncomplicated malnutrition	18

COUNSEL THE MOTHER

Assess the feeding of sick infants	19
Feeding Recommendations	20
Counsel the mother about feeding Problems	21
Counsel the mother about her own health	22
Advise mother to increase fluids during illness	23
Advise mother when to return to health worker	23
Advise mother when to return immediately	23

SICK YOUNG INFANT AGED UP TO 2 MONTHS

ASSESS, CLASSIFY AND TREAT THE SICK YOUNG INFANT

Assess, Classify and Identify Treatment

Check for Severe Disease and Local Infection	.24
Then check for Jaundice	.25
Then ask: Does the young infant have diarrhoea?	.26
Then check for Feeding Problem or Low Weight for Age	.27
Then check the young infant's immunization status	.28
Assess Other Problems	.28

Treat the Young Infant and Counsel the Mother

Intramuscular antihiotics

micamaccalar anabicucci	
Treat the young infant to prevent low blood sugar	29
Keep the young infant warm on the way to hospital	30
Oral antibiotic	30
Treat local infections at home	3
Correct positioning and attachment for breastfeeding	3
Teach mother how to express breast milk	3
Teach mother how to feed by cup	3
Teach the mother to keep the low weight infant warm at home	3
Advice mother to give home care to the young infant	34

Give Follow-up Care for the Sick Young Infant

Local Bacterial Infection	35
Jaundice	35
Diarrhoea	
Feeding Problem	36
Low Weight for age	37
Thrush	37

Recording Forms:	Sick Child	.38
_	Sick young infant	.39



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

SIGNS



ASSESS

CLASSIFY

IDENTIFY TREATMENT

TREATMENT

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?
- See if the child is lethargic or unconscious.
- Does the child vomit everything?
- Has the child had convulsions?
- Is the child convulsing now?

CHILD

BE CALM

MUST

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.

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

CL ASSIEV AS

THEN ASK ABOUT MAIN SYMPTOMS:

Does the child have cough or difficult breathing?

IF YES. ASK:

LOOK, LISTEN, FEEL:

For how lona?

· Count the breaths in one minute.

Look for chest indrawing.

• Look and listen for stridor.

· Look and listen for wheezing.

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

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

Classify COUGH or **DIFFICULT BREATHING**

	SIGNS	CLASSIFTA	(Urgent pre-referral treatments are in bold print)
,	Any general danger sign orChest indrawing orStridor in a 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 3 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 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 mother when to return immediately Follow up in 5 days if not improving

Does t	took and feel:	Į.	for DEHYDRATION	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
For how long? Is there blood in the stool?	Look at the child's general condition. Is the child:	Clas: DIARRI		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.
	 Drinking eagerly, thirsty? Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 			Not enough signs to classify as some or severe dehydration	NO DEHYDRATION	 ➤ Give fluid, zinc supplements and food to treat diarrhoea at hom (Plan A) ➤ Advise mother when to return immediately ➤ Follow-up in 5 days if not improving.
	Som,		and if diarrhoea for 14 days or more	Dehydration present	SEVERE PERSISTENT DIARRHOEA	➤Treat dehydration before referral unless the child has another severe classification ➤ Refer to hospital
				No dehydration	PERSISTENT DIARRHOEA	>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
			and if blood in stool	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.

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
- · Look for clouding of the cornea.

High

Classify **FEVER**

> Low Malaria Risk

Malaria Risk

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 oral co-artemether or other recommended 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 oral co-artemether or other recommended 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

if MEASLES now or within last 3 months, Classify

- 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.

 Any general danger sign or · Clouding of cornea or

· Deep or extensive mouth **COMPLICATED** ulcers MEASLES***

· Pus draining from the eye or Mouth ulcers

Measles now or within the

> Give Vitamin A treatment SEVERE

MEASLES WITH

EYE OR MOUTH

COMPLICATIONS***

- > 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
- > 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.
- > Give Vitamin A treatment **MEASLES**

last 3 months

Does the child have an ear problem?

IF YES, ASK: • Is there ear pain?

• Is there ear discharge?

If yes, for how long?

LOOK AND FEEL:

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

Classify EAR PROBLEM

>	Tender swelling behind the ear.	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. ➤ 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 ▶ 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

>	Visible severe wasting orOedema of both feet	SEVERE MALNUTRITION	➤Treat the child to prevent low sugar ➤Refer URGENTLY to a hospital
	Very low weight for age	VERY LOW WEIGHT	➤ Assess the child's feeding and counsel the mother on feeding according to the feeding recommendations ➤ 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

CHECK FOR ANAEMIA

LOOK and FEEL:

- Look for palmar pallor. Is it:
 - Severe palmar pallor?
 - Some palmar pallor?

CLASSIFY ANAEMIA

Severe palmar pallor	SEVERE ANAEMIA	> Refer URGENTLY to hospital
Some palmar pallor	ANAEMIA	 Give iron Give oral antimalarial if high malaria risk 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 THE CHILD'S IMMUNIZATION, VITAMIN A AND DEWORMING STATUS

IMMUNIZATION SCHEDULE: Follow national guidelines

<u>AGE</u>	VACCINE			
Birth 6 weeks 10 weeks 14 weeks 9 months	BCG DPT+HIB-1 DPT+HIB-2 DPT+HIB-3 Measles*	OPV-0 OPV-1 OPV-2 OPV-3	Hepatitis B1 Hepatitis B2 Hepatitis B3	
	* 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			

VITAMIN A SUPPLEMENTATION

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.

ROUTINE WORM TREATMENT

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

ASSESS OTHER PROBLEMS:

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



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 <u>instructions</u> 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

For dysentery give Ciprofloxacin

15mg/kg/day—2 times a day for 3 days

SECOND-LINE ANTIBIOTIC FOR DYSENTERY:

	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 an Appropriate Oral Antibiotic

> FOR PNEUMONIA, ACUTE EAR INFECTION:

FIRST-LINE ANTIBIOTIC:	
SECOND-LINE ANTIBIOTIC:	

	CO-TRIMOXAZOLE (trimethoprim / sulphamethoxazole) > Give two times daily for 3 days for pneumonia > Give two times daily for 5 days for acute ear infection			➤ Give two tindays for p ➤ Give two tindays	CILLIN* mes daily for 3 pneumonia mes daily for 5 e ear infection
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	1.5	15 ml

^{*} Amoxycillin should be used if there is high co-trimoxazole resistance.

> FOR CHOLERA:

FIRST-LINE ANTIBIOTIC FOR CHOLERA: ___ SECOND-LINE ANTIBIOTIC FOR CHOLERA:

	TETRACYCLINE ➤ Give 4 times daily for 3 days	ERYTHROMYCIN ➤ Give 4 times daily for 3 days
AGE or WEIGHT	TABLET 250 mg	TABLET 250 mg
2 years up to 5 years (12 - 19 kg)	1	1

TEACH THE MOTHER TO GIVE ORAL DRUGS AT HOME

> GIVE INHALED SALBUTAMOL for WHEEZING

USE OF A SPACER*

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

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

Spacers can be made in the following way:

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

To use an inhaler with a spacer:

- > Remove the inhaler cap. Shake the inhaler well.
- > Insert mouthpiece of the inhaler through the hole in the bottle or plastic cup.
- > The child should put the opening of the bottle into his mouth and breath in and out through the mouth.
- > A carer then presses down the inhaler and sprays into the bottle while the child continues to breath normally.
- > Wait for three to four breaths and repeat for 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 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 Oral Co-artemether

- Give the first dose of co-artemether 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 should be taken with food

	Co-artemether tablets (20mg artemether and 120mg lumefantrine)					
WEIGHT (age)	0hr 8h 24h 36h 48h 60h					
5 - <15 kg (5 months up to 3 years)	1	1	1	1	1	1
15 - <20 kg (3 years up to 5 years)	2 2 2 2 2				2	

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
- >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 Mouth Ulcers with Gentian Violet (GV)

- > Treat the 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 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.

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 Vitamin A

VITAMIN A SUPPLEMENTATION:

- > Give first dose any time after 6 months of age to ALL CHILDREN
- > Thereafter give vitamin A every six months to ALL CHILDREN

VITAMIN A TREATMENT:

- Give an extra dose of Vitamin A (same dose as for supplementation) as part of 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 months up to 12 months	100 000 IU
One year and older	200 000 IU

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 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)
- Where there is a strong suspicion of meningitis the dose of ampicillin can be increased 4 times

GENTAMICIN

- > Use undiluted 2 ml vial (40mg/ml)
- > Of the dose range provided below, use lower dose for children with weight at lower end of the category, and higher dose for children at the higher end of the category

AGE	WEIGHT	AMPICILLIN 500 mg vial	GENTAMICIN 2ml vial (at 40 mg/ml)
2 months up to 4 months	4 – <6 kg	1 ml	0.5 - 1.0 ml
4 up to 12 months	6 – <10 kg	2 ml	1.1 - 1.8 ml
12 months up to 3 years	10 – <14 kg	3 ml	1.9 - 2.7 ml
3 up to 5 years	14 – 19 kg	5 ml	2.8 - 3.5 ml

> IF REFERRAL IS NOT POSSIBLE OR DELAYED, repeat the ampicillin injection every 6 hours, and the gentamicin injection once daily

> 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 (like a tuberculin syringe) without a needle, 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 (10 mg / 2 ml)
< 5 kg	<6 months	0.5 ml
5 - < 10 kg	6 months up to 12 months	1.0 ml
10 - < 14 kg	12 months up to 3 years	1.5 ml
14 - 19 kg	3 years up to 5 years	2.0 ml

> Give Quinine for Severe Malaria

FOR CHILDREN BEING REFERRED WITH VERY SEVERE FEBRILE DISEASE:

- > Check which guinine 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

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

- > If the child is not able to swallow:
 - Give 50ml of milk or sugar water by naso-gastric tube

GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

(See FOOD advice on COUNSEL THE MOTHER chart)

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

Tell the mother to:

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

- > 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 breastfeeding whenever the child wants

> AFTER 4 HOURS:

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

> IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT:

- Show her how to prepare ORS solution at home
- Show her how much ORS to give to finish 4-hour treatment at home
- Give her 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 breastfeeding if age less than 6 months)
- 4. WHEN TO RETURN

GIVE EXTRA FLUID FOR DIARRHOEA AND CONTINUE FEEDING

(See FOOD advice on COUNSEL THE MOTHER chart)

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:

	\/=0	AGE	First give 30ml/kg in:	Then give 70ml/kg in
Can you give intravenous (IV) fluid immediately?	YES -	Infants (under 12 months)	1 hour	5 hours
		Children (12 months up to 5 years)	30 minutes	2½ hours
		December the shild arranged 2	hours. If hydration status is not im	un moving air to the IV drie more monic

- 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.

15

IMMUNIZE EVERY SICK CHILD, AS NEEDED



■ YES

Is IV treatment

available nearby

(within 30 minutes)?

NO

Are you trained to use

a naso-gastric (NG) tube

for rehydration?

NO

Can the child drink? NO

Refer URGENTLY to

hospital for IV or

NG treatment

YES



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?

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, refer.)
- > If breathing slower, less fever, or eating better, complete the 3 days of antibiotic.

> PERSISTENT DIARRHOEA

After 5 days:

Ask:

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

Treatment:

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

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

> 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.

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

> EAR INFECTION

After 5 days:

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

Treatment:

- If there is tender swelling behind the ear or high fever (38.5°C or above), refer URGENTLY to hospital.
- ➤ Acute ear infection: if ear pain or discharge persists, treat with 5 more days of the same antibiotic. Continue wicking to dry the ear. Follow-up in 5 days.
- > Chronic ear infection: Check that the mother is wicking the ear correctly. 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.

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.





> 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. 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?

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 very 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



- 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:



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

Feeding Recommendations for a child who has PERSISTENT DIARRHOEA

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

COUNSEL THE MOTHER ABOUT FEEDING PROBLEMS

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







- > If the mother reports difficulty with breastfeeding, assess breastfeeding (see *YOUNG INFANT* chart). As needed, show the mother correct positioning and attachment for breastfeeding.
- > If the child is less than 6 months old and is taking other milk or foods:
 - Build mother's confidence that she can produce all the breast milk that the child needs.
 - Suggest giving more frequent, longer breastfeeds day or night, and gradually reducing other milk or foods.

If other milk needs to be continued, counsel the mother to:

- Breastfeed as much as possible, including at night.
- Make sure that other milk is a locally appropriate breast milk substitute.
- Make sure other milk is correctly and hygienically prepared and given in adequate amounts.
- Finish prepared milk within an hour.

> If the mother is using a bottle to feed the child:

- Recommend substituting a cup for bottle.
- Show the mother how to feed the child with a cup.

> If the child is not feeding well during illness, counsel the mother to:

- Breastfeed more frequently and for longer if possible.
- Use soft, varied, appetizing, favourite foods to encourage the child to eat as much as possible, and offer frequent small 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.

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.

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

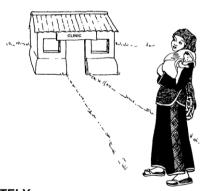
FOLLOW-UP VISIT

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

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	14 days
VERY LOW WEIGHT FOR AGE	30 days

NEXT WELL CHILD VISIT

Advise mother when to return for next immunization according to immunization schedule.



WHEN TO RETURN IMMEDIATELY

Advise mother to return immediately if the child has any of these signs:		
Any sick child	Not able to drink or breastfeedBecomes sickerDevelops a fever	
If child has 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

SIGNS



TREATMENT

(Urgent pre-referral treatments are in bold print)

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:

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

CHECK FOR VERY SEVERE DISEASE AND LOCAL BACTERIAL INFECTION

ASK:	LOOK, LISTEN, FEEL:
Is the infant having difficulty in feeding?	Count the breaths in one minute. Repeat the count if 60 or more breaths per minute. YOUNG INFANT MUST
Has the infant had convulsions (fits)?	Look for severe chest indrawing. BE CALM CALM
	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 ?

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	Advise mother to give home care for the young infant.

UNLIKELY

CLASSIFY AS

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"

Classify ALL YOUNG INFANTS

THEN CHECK FOR JAUNDICE

LOOK, LISTEN, FEEL:

If jaundice present, **ASK:**

When did jaundice first appear?

• Look for jaundice (yellow eyes or skin).

Classify

Jaundice

• Look at the young infant's palms and soles. Are they yellow?

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 <u>and</u> 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*?

Classify

Two of the following signs: ➤ If infant has no other severe classification: IF YES, LOOK AND FEEL: - Give fluid for severe dehydration (Plan C) **DIARRHOEA** Movement only when stimulated or no movement **SEVERE** • Look at the young infant's general condition: FOR DEHYDRATION If infant also has another severe at all **DEHYDRATION** classification: Sunken eves - Infant's movements - Refer URGENTLY to hospital with mother Skin pinch goes back very - Does the infant move on his/her own? giving frequent sips of ORS on the way slowly. - Advise the mother to continue - Does the infant move only when stimulated but then breastfeeding stops? - Does the infant not move at all? Two of the following signs: Give fluid and for some dehydration and continue breastfeeding (Plan B). - Is the infant restless and irritable? Restless, irritable SOME DEHYDRATION Sunken eves ► If infant has any severe classification: Skin pinch goes back · Look for sunken eyes. slowly. Refer URGENTLY to hospital with mother • Pinch the skin of the abdomen. giving frequent sips of ORS on the way. Does it go back: Advise mother to continue breastfeeding. - Very slowly (longer than 2 seconds)? ➤ Advise mother when to return immediately - or slowly? Follow-up in 2 days if not improving > Give fluids to treat for diarrhoea at home and Not enough signs to classify NO DEHYDRATION continue breastfeeding (Plan A)

SIGNS

as some or severe

dehydration.

TREATMENT

(Urgent pre-referral treatments are in bold print)

Advise mother when to return immediately

> Follow up in 2 days if not improving

CLASSIFY AS

* What is diarrhoea in a young infant?

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

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

THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE

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

	0	v.	
A	3	n:	

• Is the infant breastfed? If yes, how many times in 24 hours?

- Does the infant usually receive any other foods or drinks? If ves. how often?
- If yes, what do you use to feed the infant?

• Determine weight for age.

Classify

FFFDING

TREATMENT

(Urgent pre-referral treatments are in bold print)

 Not well attached to breast or

SIGNS

- Not suckling effectively,
- · Less than 8 breastfeeds in 24 hours, or
- · Receives other foods or drinks, or
- **PROBLEM** OR **LOW WEIGHT** FOR AGE

FEEDING

CLASSIFY AS

- · Low weight for age, or
- Thrush (ulcers or white patches in mouth)

- 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 breastfeeding 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 breastfeeding more, reducing other foods or drinks, and using a cup.
- If not breastfeeding at all:
 - Refer for breastfeeding 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.

ASSESS BREASTFEEDING:

· 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

mouth (thrush).

LOOK. LISTEN.FEEL:

· Look for ulcers or white patches in the

(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 breastfeeding.

THEN CHECK THE YOUNG INFANT'S IMMUNIZATION AND VITAMIN A STATUS:

AGE VACCINE VITAMIN A

IMMUNIZATION SCHEDULE:

Birth 6 weeks 10 weeks

BCG OPV-0 DPT+HIB-1 OPV-1

DPT+HIB-1 OPV-1 Hepatitis B 1
DPT+HIB-2 OPV-2 Hepatitis B 2

200 000 IU to the mother within 6 weeks of delivery

- > Give all missed doses on this visit.
- > Immunize 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.

	AMPICILLIN Dose: 50 mg per kg	GENTA	MICIN
	To a vial of 250 mg	Undiluted 2 ml vial containing OF	
WEIGHT	Add 1.3 ml sterile water = 250 mg/1.5 ml	Add 6 ml sterile water to 2 ml vial cor	ntaining 80 mg* = 8 ml at 10 mg/ml
		AGE <7 days Dose: 5 mg per kg	AGE <u>></u> 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 as VERY SEVERE DISEASE. If referral is not possible, continue to give ampicillin <u>and</u> 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 breast milk before departure. If not possible to give expressed breast milk, 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 breast milk or sugar water by naso-gastric tube.

TREAT THE YOUNG INFANT

> 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:

		OTRIMOXAZOLE rim + sulphamethoxazo ays	ole)		AMOXICILLIN mes daily for 5 days
AGE or WEIGHT	Adult Tablet single strength (80 mg trimethoprim + 400 mg sulphamethoxazole)	Paediatric Tablet (20 mg trimethoprim +100 mg sulphamethoxazole)	Syrup (40 mg trimethoprim +200 mg sulphamethoxazole)	Tablet 250 mg	Syrup 125 mg in 5 ml
Birth up to 1 month (<4 kg)		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.

TREAT THE YOUNG INFANT AND COUNSEL THE MOTHER

▶ 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 four 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 guickly 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.

> Teach the Mother How to Feed by a Cup

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

> Teach the Mother How to Keep the Low Weight Infant Warm at Home

- Keep the young infant in the same bed with the mother.
- Keep the room warm (at least 25°C) with home heating device and make sure that there is no draught of cold air.
- Avoid bathing the low weight infant. When washing or bathing, do it in a very warm room with warm water, dry immediately and thoroughly after bathing and clothe the young infant immediately.
- Change clothes (e.g. nappies) whenever they are wet.
- Provide skin to skin contact as much as possible, day and night. 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

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 three 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.

GIVE FOLLOW-UP CARE FOR THE YOUNG INFANT

> 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 to hospital.

GIVE FOLLOW-UP CARE FOR THE YOUNG INFANT

> 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).

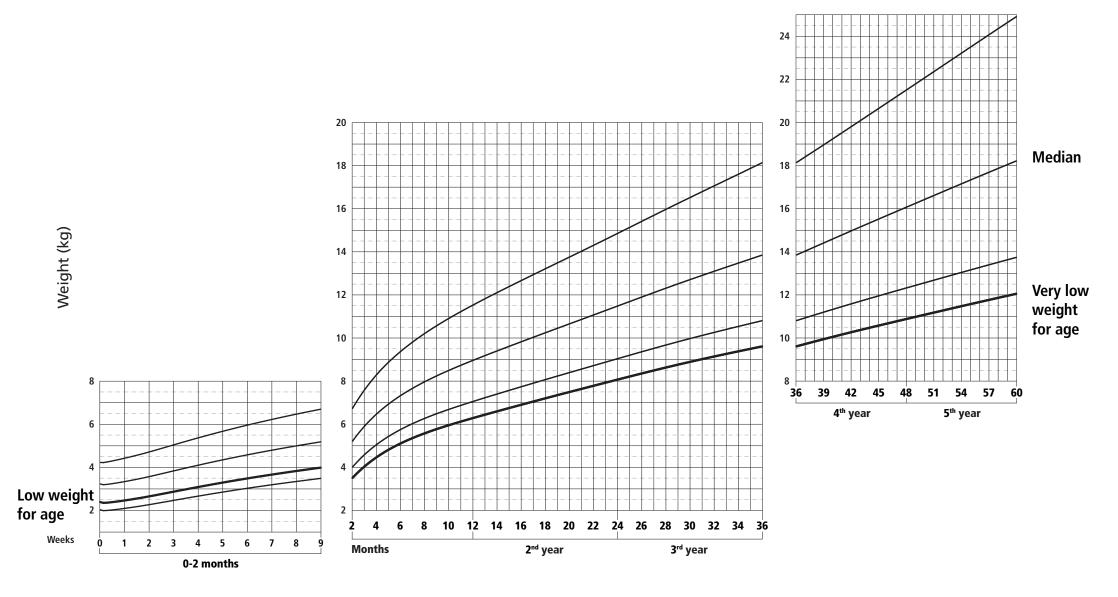
Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.

- > 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 7 days.

Name:MANAGEME	MANAGEMENT OF THE SICK CHILD AGED 2 MONTHS UP TO 5 YEARS Age: Weight: kg Temp) 5 YEARS kg Temperature:°C
ASK: What are the child's problems? ASSESS (Circle all signs present)	Ini	Initial visit? Follow-up Visit? 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	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 Look and listen for wheezing.	
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 eagerly, 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)	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?	 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. 	
If the child has measles now or within the last 3 months:	 Look for mouth ulcers. If Yes, are they deep and extensive? Look for pus draining from the eye. Look for clouding of the comea. 	
DOES THE CHILD HAVE AN EAR PROBLEM? Yes	95 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	IIA	
	 Look for visible severe wasting. Look for oedema of both feet. Determine weight for age. Very Low Not Very Low 	
	 Look for palmar pallor. Severe palmar pallor? Some palmar pallor? 	
CHECK THE CHILD'S IMMUNIZATION STATUS	Circle immunizations needed today.	Return for next immunization on:
BCG DPT1 + HIB 1 DPT2 + HIB 2	DPT3 + HIB 3 Vitamin A Mebendazole	
OPV 0 OPV 1 OPV 2	OPV 3 Measles	(Date)
ASSESS CHILD'S FEEDING if child has ANAEMIA Do you breastfeed your child? Yes No	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	FEEDING PROBLEMS
Do you breastfeed your child? YesNotime. If Yes, how many times in 24 hours?time. Does the child take any other food or fluids? Yes_ If Yes, what food or fluids?	times. Do you breastfeed during the night? Yes No 'es No	FEEDING PROBLEMS
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 Ye	o you use to feed the child? ings? Who feeds the child and how? ed? Yes No If Yes, how?	
ASSESS OTHER PROBLEMS	Ask about mother's own health	

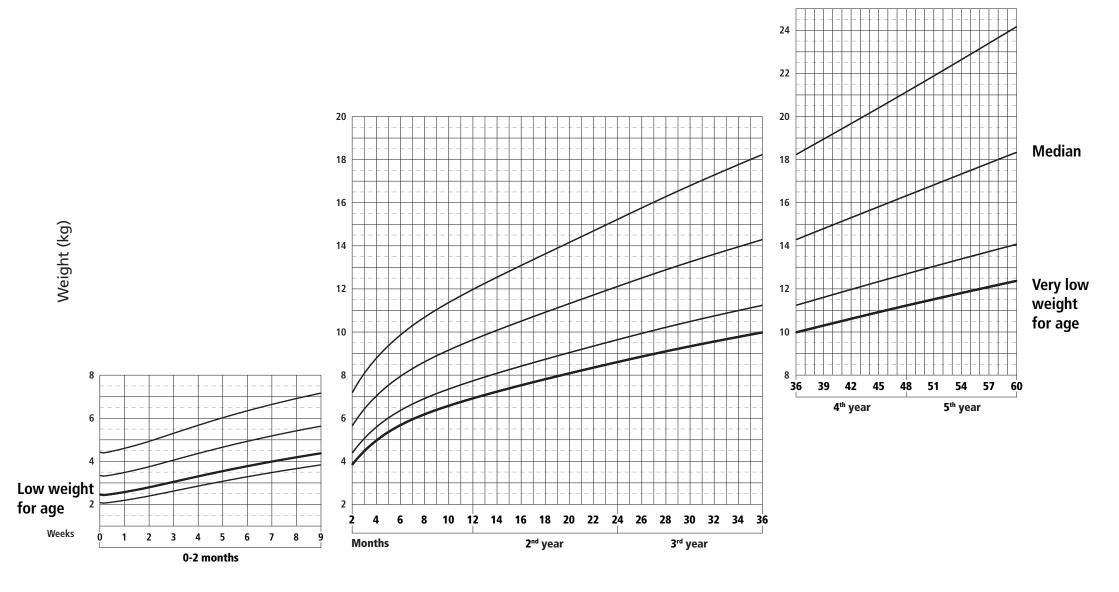
	Ask about mother's own nealth	ASSESS OTHER PROBLEMS
	tis B2	Vitamin A to mother Hepatitis B1 Hepatitis B2
(Date)		OPV 0 OPV1 OPV2
	HIB2	BCG DPT1 + HIB1 DPT2+ HIB2
Return for next immunization on:	AND VITAMIN A STATUS Circle immunizations needed today.	CHECK THE YOUNG INFANT'S IMMUNIZATION AND VITAMIN A STATUS
	not suckling effectively suckling effectively	
	times pausing)?	
	 Is the infant suckling effectively (that is, slow deep sucks, some- 	
	not well attached good attachment	
	- Lower lip turned outwards Yes No Chin touching breast Yes No	
	nfant's top lip Yes No	
	 Is the infant able to attach? To check attachment, look for: 	
	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.	ASSESS BREASTFEEDING: • Has the infant breastfed in the previous hour?
		 Does the infant usually receive any other foods or drinks? Yes No
	 Look for ulcers or white patches in the mouth (thrush). 	
	Determine weight for age. Low Not Low	Is the infant breastfed? YesNo If Yes, how many times in 24 hours?times
	to hospital W WEIGHT FOR AGE	If the infant has no indications to refer urgently to hospital THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT FOR AGE
	 Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly? 	
	• Look for sunken eyes.	
	Is the infant restless or irritable?	
	Does the intant not move at all ?	
	Does the infant move only when stimulated?	
	 Look at the young infant's general condition. 	
	? Yes No	DOES THE YOUNG INFANT HAVE DIARRHOEA?
	 Look for jaundice (yellow eyes or skin) Look at the young infant's palms and soles. Are they yellow? 	 If jaundice present, when did jaundice first appear?
		THEN CHECK FOR JAUNDICE
	 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? 	
	Count the breaths in one minute breaths per minute Repeat if 60 breaths or more Fast breathing? Look for severe chest indrawing.	Is the infant having difficulty in feeding?Has the infant had convulsions (fits)?
Classify all young infants	AL BACTERIAL INFECTION	CHECK FOR VERY SEVERE DISEASE AND LOCAL BACTERIAL INFECTION
CLASSIFY	CI	ASSESS (Circle all signs present)
visit? Follow-up visit?	Initial visit?	ASK: What are the infant's problems?
Temperature:°C	Age: Weight:kg	Name:
? MONTHS	MANAGEMENT OF THE SICK YOUNG INFANT AGED UP TO 2 MONTHS	MANAGEMEN

Weight-for-age chart for girls



Age (completed weeks and months)

Weight-for-age chart for boys



Age (completed weeks and months)

Integrated Management of Childhood Illness Chart booklet

Process of updating the chart booklet

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

Who was involved and their <u>declaration of interests</u>

The following experts were involved in the development of the updated newborn recommendations: Zulfiqar Bhutta, Ayivi Blaise, Wally Carlo, Rolando Cerezo, Magdy Omar, Pavel Mazmanyan, MK Bhan, Helenlouise Taylor, Gary Darmstadt, Vinod Paul, Anne Rimoin, Linda 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 Ashok Deorari, Teshome Desta,, Assaye Kassie, Dinh Phuang Hoa, Harish Kumar, Vinod Paul and Siddhorth Ramzi.. Their contributions are acknowledged.

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.

WHO Library Cataloguing-in-Publication Data:

Integrated Management of Childhood Illness chart booklet.

1.Integrated management of childhood illness. 2.Infant, Newborn. 3.Child. 4.Infant. 5.Disease management. 6.Teaching materials. I.World Health Organization. II.UNICEF.

ISBN 978 92 4 159728 9 (NLM classification: WC 503.2)

© World Health Organization 2008

All rights reserved. Publications of the World Health Organization can be obtained from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; e-mail: bookorders@who.int). Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press, at the above address (fax: +41 22 791 4806; e-mail: permissions@who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

