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Integrated Management of Childhood Illness Facility Based Care Chart Booklet



Integrated Management of Childhood Illness

**Facility Based Care
Chart Booklet**

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Chart 1: Steps in the management of sick young infants and children admitted to hospital

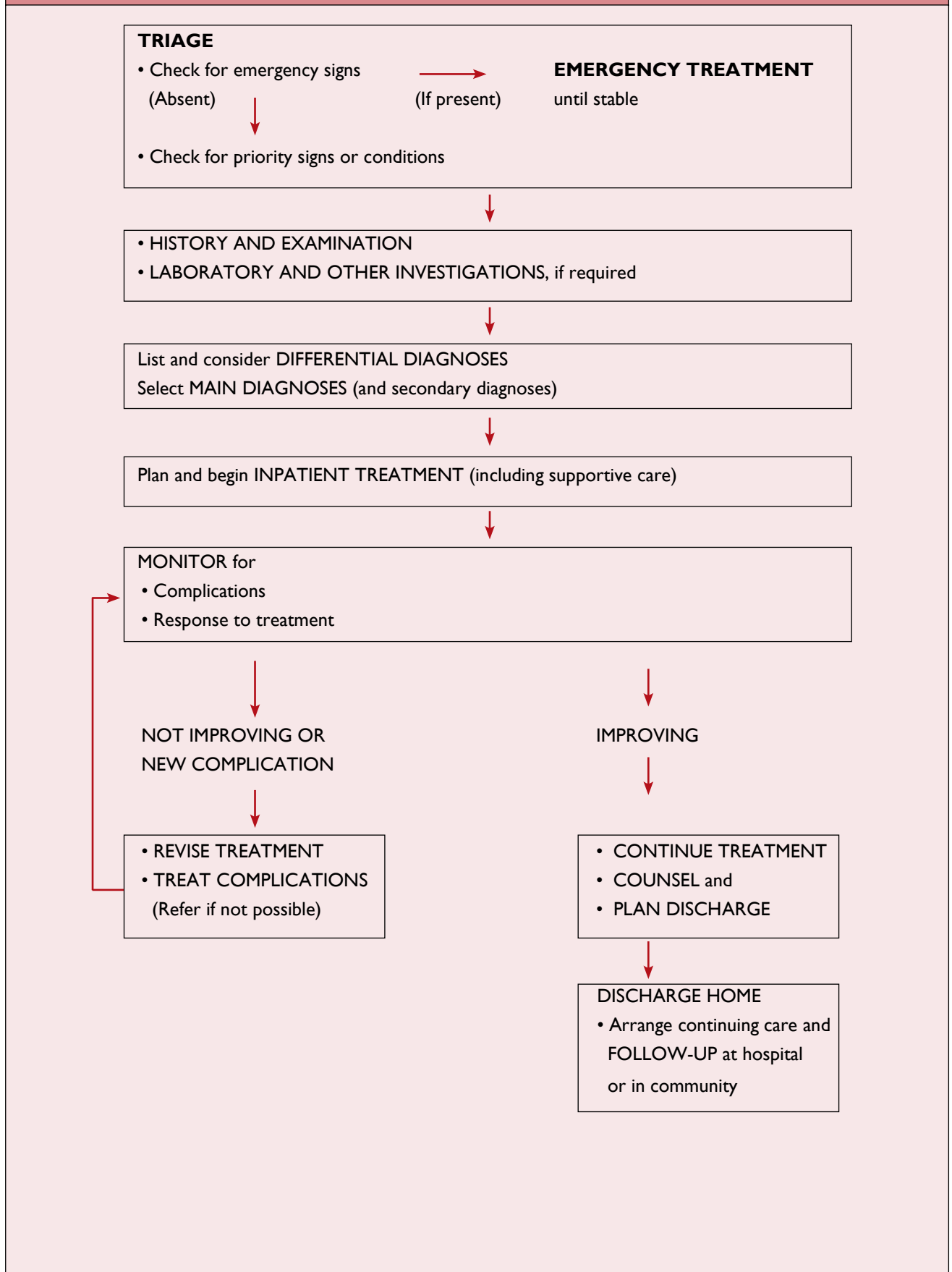


Chart 2: Triage

ASSESS FOR EMERGENCY SIGNS (In all cases)

TREAT:

- Check for head/neck trauma before treating child (do not move neck if cervical spine injury possible)
- Give appropriate treatment for + ve emergency signs
- Call for help
- Draw blood for glucose, malaria smear, Hb)

AIRWAY AND BREATHING

- Not breathing or gasping **or**
- Central cyanosis **or**
- Severe respiratory distress

→
Any Sign
Positive

- Manage airway
- Provide basic life support (Not breathing/gasping) (Chart 3)
- Give oxygen
- Make sure child is warm*

CIRCULATION

- Cold extremities **with:**
- Capillary refill longer than 3 sec, **and**
 - Weak and fast pulse

→
IF POSITIVE
Check for severe acute malnutrition

- If the child has any bleeding, apply pressure to stop the bleeding. Do not use a tourniquet
 - Give oxygen
 - Make sure child is warm*
 - Insert I/V and begin giving fluids rapidly (Chart 4)
- If not able to insert peripheral I/V, insert an umbilical or intraosseous line

IF SEVERE ACUTE MALNUTRITION

(Age ≥2 months)

If lethargic or unconscious:

- Insert I/V line and give IV glucose and fluids (Chart 5)

If not lethargic or unconscious:

- Give glucose orally or by NG tube
- Proceed immediately to full assessment and treatment

COMA CONVULSING

- Coma **or**
- Convulsing (now)

→
IF COMA OR CONVULSING

- Manage airway
- Position the child
- Check and correct hypoglycaemia
- If convulsions continue give I/V calcium in young infants
- If convulsions continue, give anticonvulsants

SEVERE DEHYDRATION (ONLY IN CASES WITH DIARRHOEA)

- Diarrhoea plus any two of these:
- Lethargy
 - Sunken eyes
 - Very slow skin pinch

→
DIARRHOEA plus TWO SIGNS POSITIVE
Check for severe acute malnutrition

- Make sure child is warm*
 - Insert I/V line and begin giving fluids rapidly following PLAN C
- #### IF SEVERE ACUTE MALNUTRITION
- (Age ≥2 months)
- Do not start I/V immediately
 - Proceed immediately to full assessment and treatment

* Check temperature; if baby is cold to touch, rewarm

IF THERE ARE NO EMERGENCY SIGNS LOOK FOR PRIORITY SIGNS:

These children need prompt assessment and treatment

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> • Tiny baby (<2 months) • Bleeding • Pallor (severe) • Malnutrition: visible severe wasting | <ul style="list-style-type: none"> • Respiratory distress (RR >60/min) • Trauma or other urgent surgical condition • Referral (urgent) • Oedema of both feet | <ul style="list-style-type: none"> • Temperature <36.5°C or > 38.5°C • Restless, continuously irritable, or lethargy • Poisoning • Burns (major) |
|---|---|--|

NON-URGENT: Proceed with assessment and further treatment according to child's priority

Note: If a child has trauma or other surgical problems, get surgical help or follow surgical guidelines

Chart 3: Providing basic life support

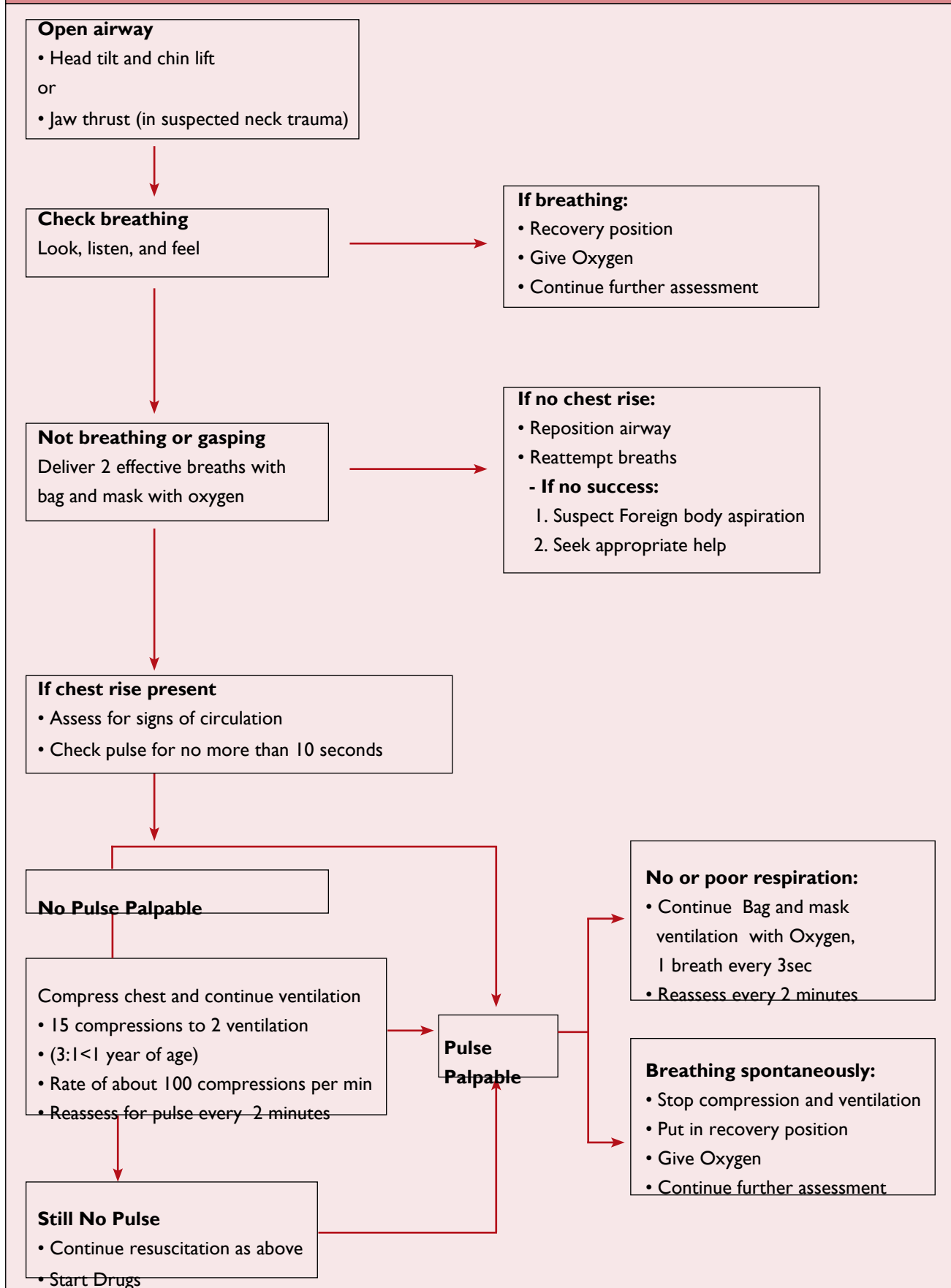


Chart 4: Management of shock in a child without severe acute malnutrition

- Weigh the child. Estimate the weight if child cannot be weighed or weight not known
- Check that the child does not have severe acute malnutrition
- Give Oxygen
- Make sure child is warm

Insert an intravenous line and draw blood for emergency laboratory investigations

- Give Ringer's lactate or Normal saline
- Infuse **First Bolus** -20ml/kg as rapidly as possible in a child & over 20-30 minutes in a young infant

Reassess child

No improvement:

Repeat **Second Bolus** of 20ml/kg

No improvement

Repeat **Third Bolus** of 20ml/kg

No improvement

- Look for evidence of blood loss, if YES: give blood 20ml/kg over 30 minutes
- If profuse diarrhoea give another bolus of Ringer's lactate or Normal saline (**Fourth Bolus**)

Reassess after fourth Bolus

* Signs of improvement: Good volume and slowing pulse rate and faster capillary refill.

If improvement with fluid bolus at any stage:*

Fluid responsive shock

- Observe and continue fluids (70ml/kg over 5 hours in infants and over 2 ½ hours in a child)
- Give additional fluids if losses

If no improvement with 3 fluid boluses in sick child & 2 fluid boluses in young infant

Fluid refractory shock

Manage as septic shock

- Add broad spectrum antibiotics
- Start dopamine infusion at 10 mcg/kg/min and assess every 15 min
- Increase by 5 mcg/kg/min if no response
- Titrate up to 20 mcg/kg/min

If still no response: **Dopamine resistant shock:**

- If you suspect adrenal insufficiency, give IV Hydrocortisone 1- 2mg/kg initial dose
- If no response: Continue same treatment and consider referral to higher center

Reassess child after every bolus has run in

If deterioration (features of fluid overload at any stage):

- Stop fluid bolus and observe
- Check Urine output

Chart 5: Management of shock in a child with severe acute malnutrition

Give this treatment only if the child has signs of **shock AND is lethargic or has lost consciousness**

- Weigh the child. Estimate the weight if child cannot be weighed or weight not known
- Give Oxygen
- Make sure child is warm

Insert an IV line and draw blood for emergency laboratory investigations

Give IV Glucose

Give IV fluid 15ml/kg over 1 hour of either
Half-normal saline with 5% glucose or Ringer's lactate

Measure the pulse and breathing rate at the start and every 5-10 min minutes

Signs of improvement
(PR and RR fall)

If the child **fails to improve**
after the first 15ml/kg IV

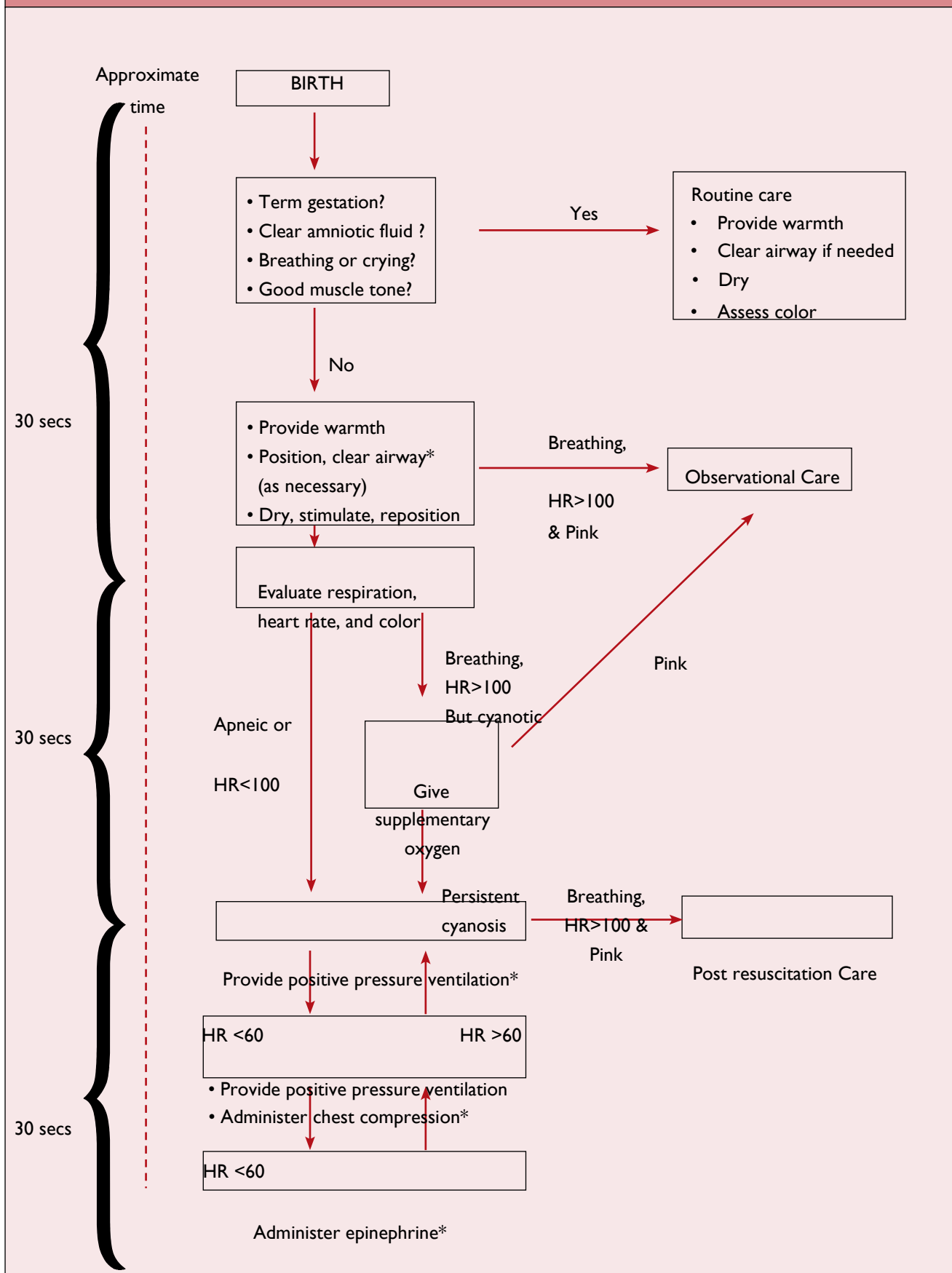
If the child deteriorates during
the IV rehydration (RR increases by
5 /min or PR by 15 beats/min), Stop
the infusion and reassess

- Repeat same fluid IV 15ml/kg over 1 hour more; then
- Switch to oral or nasogastric rehydration with ORS, 10ml/kg/h up to 10 hours;
- Initiate re-feeding with starter formula

Assume
The child has septic shock

- Give maintenance IV fluid (4ml/kg/h)
- Start antibiotic treatment
- Start dopamine
- Initiate re-feeding as soon as possible

Chart 6: FLOW CHART of Neonatal Resuscitation



* Endotracheal intubation may be considered at several steps

Guidelines for fluid requirement in small newborn babies		
Day of Life	Birth	Weight
	>1500g	<1500g
1	60	80
2	75	95
3	90	110
4	105	125
5	120	140
6	135	150
7	150	150

Type of fluid to be given

- First 2 days : 10% dextrose in water
- After 2 days: Use either commercially available pediatric maintenance fluid containing 25mmol/L of sodium (e.g. Isolyte-P) otherwise prepare the fluid by adding 20ml NS + 1ml Kcl+79ml of 10% dextrose to make 100ml fluid.

Achieving appropriate glucose infusion rates using a mixture of D10 & D25 (Babies >1500gm)						
Volume (ml/ kg/d)	Glucose infusion rate					
	6mg/kg/min		8mg/kg/min		10mg/kg/min	
	D10 (ml/kg/d)	D25 (ml/kg/d)	D10 (ml/kg/d)	D25 (ml/kg/d)	D10 (ml/kg/d)	D25 (ml/kg/d)
60	42	18	24	36	5	55
75	68	7	49	26	30	45
90	90	-	74	16	55	35
105	85*	-	99	6	80	25
120	100*	-	120	-	97	18

Note: *Add 20ml/kg of Normal saline to provide 3 meq/kg of sodium

Guidelines for the modes of providing fluids and feeding schedule

Age	Categories of neonates		
Birth weight (gm)	<1200	1200-1800	30-34
Gestation (weeks)	<30	>1800	>34
Initial	- IV fluids - Triage - Gavage feeds if not sick	Gavage feeds	- Breast feeds - If unsatisfactory, give cup-spoon feeds
After 1-3 days	Gavage feeds	Cup-spoon feeds	Breast feeds
Later (1-3 wks)	Cup-spoon feeds	Breast feeds	Breast feeds
After some time (4-6 wks)	Breast feeds	Breast feeds	Breast feeds

Feeding volumes and rate of increments in LBW

Age (days)	Feed volume (ml/kg/day)
1	60
2	90
3	120
4	150
5	180
6	180

Management of Sick young infants (Tiny Baby)

Indications for Admission

- Emergency signs
- Unable to breastfeed
- Respiratory distress (Respiratory rate 60/min or more)
- Abdominal distention
- Bulging anterior fontanelle
- Yellow palms and soles
- Diarrhea
- Vomiting
- Bleeding
- Blood in stool
- Hypothermia
- Fever

General principles of management

1. Provide warmth, ensure consistently normal temperature
2. Provide bag and mask ventilation with oxygen if breathing is inadequate.
3. Start oxygen by hood or mask, if cyanosed or grunting.
4. Provide gentle physical stimulation, if apneic.
5. Start intravenous line.
6. Infuse glucose (10 percent) 2ml/kg stat.
7. If perfusion is poor as evidenced by capillary refill time (CRT) of more than 3 seconds, manage shock as described earlier.
8. Inject Vitamin K 1mg intramuscularly.
9. Consider use of dopamine if perfusion is persistently poor.
10. Avoid enteral feed if very sick, give maintenance fluids intravenously

Antibiotic therapy of sepsis

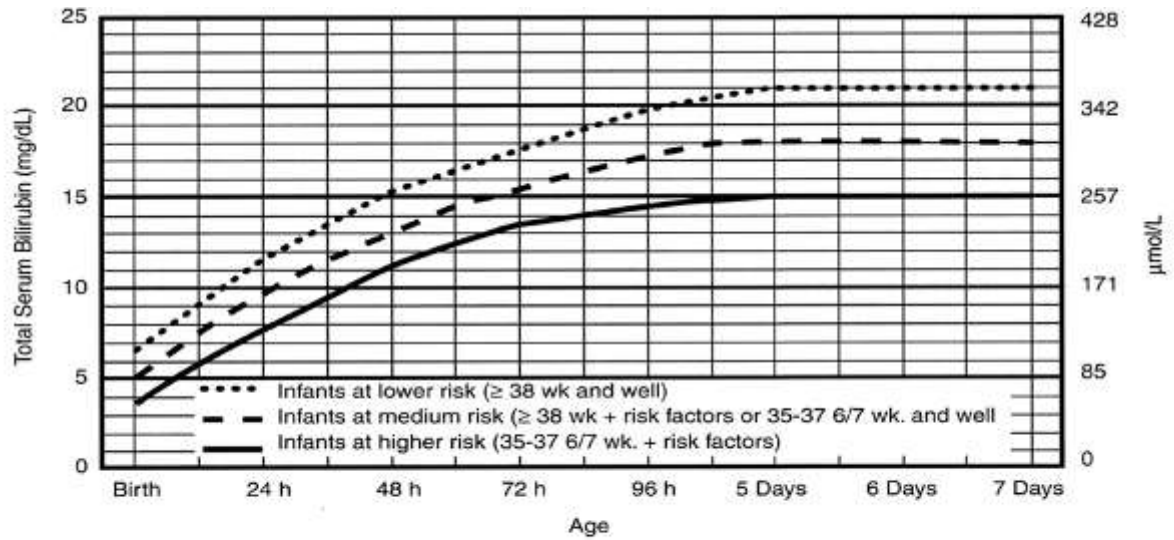
Antibiotic	Each Dose (mg/kg/dose)	Frequency		Route	Duration (Days)
		<7 days age	≥7 days age		
Inj. Ampicillin or	50	12hrly	8hrly	IV, IM	7-10
Inj. Cloxacillin	50	12hrly	8hrly	IV	7-10
And					
Inj. Gentamicin or	5	24hrly	24hrly	IV, IM	7-10
Inj. Amikacin	15	24hrly	24hrly	IV, IM	7-10

Checklist for young infant care

T.A.B.C.F.M.F.M.C.F.

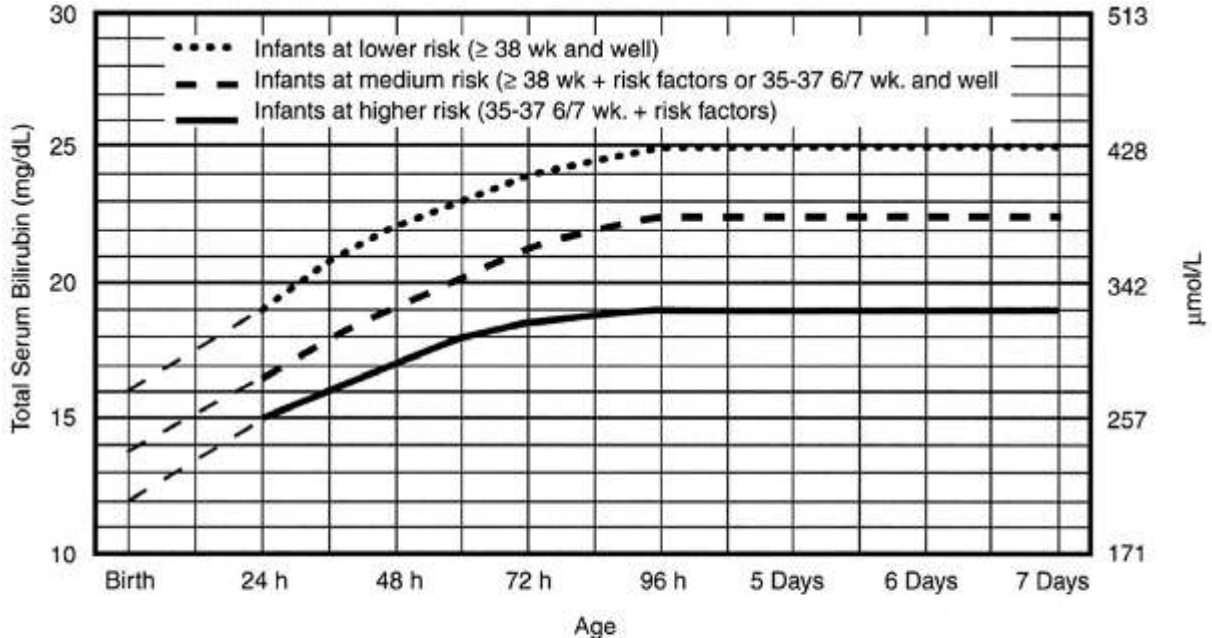
S. NO	CHECKLIST	ASSESSMENT	ACTION
1	Temperature	Mild hypothermia	Rewarm by KMC
		Hypothermia (Moderate/Severe)	Rapid Rewarming by radiant warmer
		Fever	Removal of excess clothing, change environment, Sepsis screening
2	Airway	Obstructed	Open the airway (Position and suction)
3	Breathing	Apnoea/Gasping Respiratory Distress	PPV with Bag and Mask Oxygen
4	Circulation	Shock	Give 20ml/Kg Oxygen Normal saline/RL in 30 min
5	Fluids	No shock	Maintenance Fluid
6	Medication Other Management	Suspected sepsis Jaundice	Antibiotics Phototherapy
7	Feeding		As per wt & age guidelines
8	Monitor	Temperature, Respiration, Colour, Heart Rate, CRT, Danger Signs	
9	Communication		For Home care: • Exclusive Breast Feeding • Maintain Temperature • Cord & Eye Care • Danger Signs • Maternal Health For care during referral
10	Follow Up		• 2 weekly initially for 2-3 visits, every month thereafter • Check weight, feeding problems • Immunization

Guidelines for initiating Phototherapy in Neonatal Hyperbilirubinemia



- Use total bilirubin. Do not subtract direct reacting or conjugated bilirubin.
- Risk factors = isoimmune hemolytic disease, G6PD deficiency, asphyxia, significant lethargy, temperature instability, sepsis, acidosis, or albumin < 3.0g/dL (if measured)
- For well infants 35-37 6/7 wk can adjust TSB levels for intervention around the medium risk line. It is an option to intervene at lower TSB levels for infants closer to 35 wks and at higher TSB levels for those closer to 37 6/7 wk.

Guidelines for Exchange Transfusion in Neonatal Hyperbilirubinemia



- The dashed lines for the first 24 hours indicate uncertainty due to a wide range of clinical circumstances and a range of responses to phototherapy.
- Immediate exchange transfusion is recommended if infant shows signs of acute bilirubin encephalopathy (hypertonia, arching, retrocollis, opisthotonos, fever, high pitched cry) or if TSB is ≥ 5 mg/dL (85 μ mol/L) above these lines.
- Risk factors - isoimmune hemolytic disease, G6PD deficiency, asphyxia, significant lethargy, temperature instability, sepsis, acidosis.
- Use total bilirubin. Do not subtract direct reacting or conjugated bilirubin
- If infant is well and 35-37 6/7 wk (median risk) can individualize TSB levels for exchange based on actual gestational age.

Treatment of very severe pneumonia and severe pneumonia

- Admit the child to hospital
- Antibiotic therapy

For very severe pneumonia - Give ampicillin (50mg/kg IM/IV every 6 hours) and gentamicin (7.5mg/kg IM/IV once a day) for 10 days. Alternatively, give chloramphenicol (25mg/kg IM or IV every 8 hours or use ceftriaxone (80mg/kg IM or IV once daily) for 10 days.

Age / weight	Inj. Ampicillin 50mg/kg 6hrly Add 2.1ml sterile water to vial of 500mg (500mg/2.5ml)	Inj. Gentamicin 7.5mg/kg OD Add 6ml sterile water to vial of 80mg(10mg/ml)	Inj. Chloramphenicol 25mg/kg 8hrly Add 5ml sterile water to vial of 1gm =5.6ml (180mg/ml)
2 - <4 months (4 - <6kg)	1ml	2.25- 3.75ml	0.75ml
4 - <12 months (6 - <10kg)	2ml	4.5 – 6.75ml	1ml
1 - <3 years (10 - <14kg)	3ml	7.5 – 10.0ml	1.5ml
3 - <5 years (14 – 19kg)	5ml	10.5 – 14ml	2.5ml

For severe pneumonia - Give benzylpenicillin (50 000 units/kg) or ampicillin (50mg/kg) IM or IV every 6 hours).

Age / weight	Inj. Benzylpenicillin 50, 000units/kg 6hrly Add 9.6ml sterile water to vial of 600mg (1,000,000units/10ml) Give IV	Inj. Benzylpenicillin 50, 000units/kg 6hrly Add 1.6ml sterile water to vial of 600mg (1,000,000units/2ml) Give IM	Oral Amoxicillin 15mg/kg 3 times a day 250mg tablet
2 - <4 months (4 - <6kg)	2ml	0.4ml	1/4
4 - <12 months (6 - <10kg)	3.75ml	0.75ml	1/2
1 - <3 years (10 - <14kg)	6ml	1.2ml	3/4
3 - <5 years (14 – 19kg)	8.5ml	1.7ml	1

- Oxygen therapy
- Supportive care

Management algorithm for treating acute asthma in a hospital

Initial assessment and grade severity of attack History, physical examination

MILD ATTACK

MODERATE TO SEVERE ATTACK

Initial Treatment

- Salbutamol inhalation 2.5mg/dose (5mg/ml solution), by nebulizer every 20 minutes x 3

or

- Salbutamol inhalation by MDI-spacer 4 puffs (100mcg/puff) at 2-3 min interval. This course is repeated every 20 minutes x 3

or

- Inj Adrenaline 0.01ml/kg (max of 0.3ml) of 1:1000 solution subcutaneous every 20 min x 3

Initial Treatment

- Salbutamol inhalation 2.5mg/dose (5mg/ml solution), by nebulizer every 20 min x 3

or

- Salbutamol inhalation by MDI-spacer 4 puffs (100mcg/ puff) at 2-3 min interval. This course is repeated every 20 min x 3

or

- Inj Adrenaline 0.01ml/kg (maximum of 0.3ml) of 1:1000 solution subcutaneous every 20 min x 3
- Oxygen
- Start steroids; Prednisolone 1mg/kg or Hydrocortisone 10mg/kg I/V stat

Good response:

- Home treatment
- Continue inhaled or oral salbutamol 6hrly

Incomplete or poor response:

- Add steroids
- Observe for 4 hrs
- Continue Salbutamol 4-6hrly inhalation
- Discharge if improvement seen

Home treatment:

- Continue inhaled or oral Salbutamol 6hrly
- Short course steroids for 3-5 days; can be stopped without tapering.

Reassess every 60 min

Poor response:

- Repeat initial treatment as before, and
- Add Ipratropium bromide inhalation (may mix or alternate with salbutamol)
- Oxygen
- Oral Prednisolone (1-2mg/Kg)

Reassess every 60 min

Poor response:

- Continue bronchodilator 1-2hrly and Ipratropium 8hrly; Continue steroids
- Give one dose of Mag. Sulph /aminophylline

Reassess every 60 min

Poor response:

- Give one dose of Mag. Sulph, aminophylline choosing what was not used in the previous step
- Or
- REFER

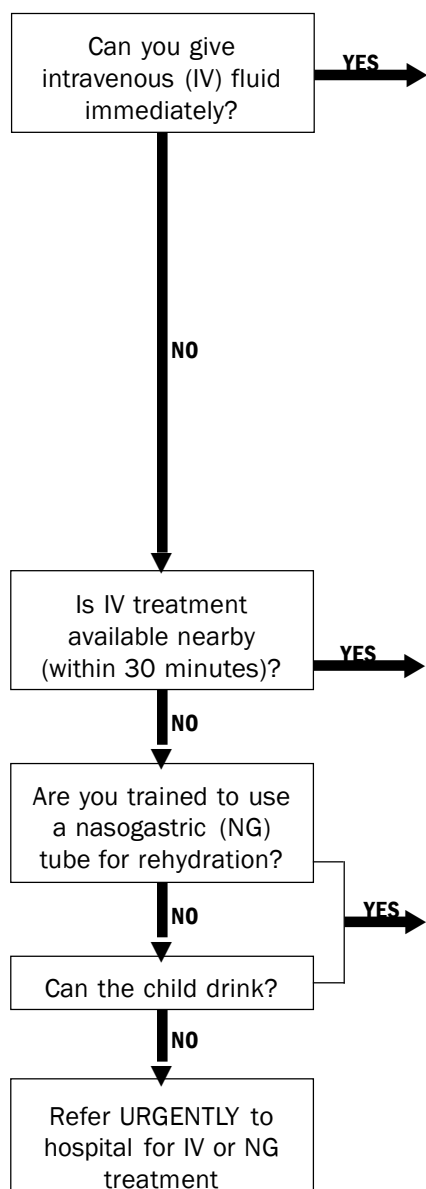
Good response at any stage:

- Follow the principle of "Last in – First out"
- Omit aminophylline infusion in 12- 24 hours, if used
 - Omit ipratropium inhalation in next 12-24 hrs
 - Reduce the salbutamol inhalation to 4-6 hourly
 - Plan discharge

Diarrhoea Treatment Plan C: Treat severe dehydration

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

START HERE



- Start IV fluid immediately. If the child can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer's lactate solution (or, if not available, normal saline), divided as follows:

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

* Repeat once if radial pulse is still very weak or not detectable.

- Reassess the child every 1–2 hours. If hydration status is not improving, give the IV drip more rapidly.
- Also give ORS (about 5 ml/kg/hour) as soon as the child can drink: usually after 3–4 hours (infants) or 1–2 hours (children).

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.

- 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:
 - If there is repeated vomiting or increasing abdominal distension, give the fluid more slowly.
 - If hydration status is not improving after 3 hours, send the child for IV therapy.
- After 6 hours, reassess the child. Classify dehydration. Then choose the appropriate plan (A, B, or C) to continue treatment.

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

Diarrhoea Treatment Plan B: Treat Some Dehydration with ORS

GIVE RECOMMENDED AMOUNT OF ORS IN CLINIC 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 in ml	<6kg 200-400	6 - <10kg 400-700	10 - <12kg 700-900	12 – 19kg 900-1400

* Use the child's age only when 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) by 75.

- If the child wants more ORS than shown, give more.
- **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 but stop other feeding.
- **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
 - Give her enough ORS packets to complete rehydration. Also give 2 packets as recommended in Plan A.
 - Explain the 4 Rules of Home Treatment:

1. Give extra fluid
 2. Give zinc supplements
 3. Continue feeding
- }
Plan A
4. When to return

COUNSEL THE MOTHER ON THE 4 RULES OF HOME TREATMENT

1. GIVE EXTRA FLUID (AS MUCH AS THE CHILD WILL TAKE)

- Tell the mother:

If the child is exclusively breastfed: Breastfeed frequently and for longer at each feed. If passing frequent watery stools:

- For less than 6 months age give ORS and clean water in addition to breast milk
- If 6 months or older give one or more of the home fluids in addition to breast milk.

If the child is not exclusively breastfed: Give one or more of the following home fluids; ORS solution, yoghurt drink, milk, lemon drink, rice or pulses based drink, vegetable soup, green coconut water or plain clean water.

It is especially important to give ORS at home when:

- The child has been treated with Plan B or Plan C during this visit
- The child cannot return to a clinic if diarrhoea worsens.
 - Teach the mother how to mix and give ors. Give the mother 2 packets of ors to use at home.
 - Show the mother how much fluid to give in addition to the usual fluid intake:

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

- Tell the mother how much zinc to give :

2 months Up to 6 months	10mg per day for 14 days
6 months and more	20mg per day for 14 days
- Show the mother how to give the zinc supplements
- Remind the mother to give the zinc supplement for the full 10-14 days.

3. CONTINUE FEEDING

4. WHEN TO RETURN: Advise mothers to return immediately if:

- Not able to drink or breastfeed
- Becomes sicker
- Develops a fever
- Blood in stools
- Drinking poorly

Management of dysentery

- Young infants (<2 months):
 - Admit and rule out surgical causes (for example, intussusceptions) - and refer to a surgeon, if appropriate.
 - Give the young infant IM/IV ceftriaxone (100mg/kg) once daily for 5 days.
- Child: Give oral antibiotics for 3 days. In admitted children IM/IV Ceftriaxone (100mg/kg) once daily for 5 days may be used.

CHILD WITH LOOSE STOOL WITH BLOOD		
↓		
Severely Malnourished?	→ Yes →	Refer To Hospital
↓ NO ↓		
Give Antimicrobial For Shigella		
↓		
Better In 2 Days	→ Yes →	Complete 3 Days Treatment
↓ NO ↓		
Initially Dehydrated, Age <1 Year Or Measles in Past 6 Weeks	→ Yes →	Refer To Hospital
↓ NO ↓		
Change To Second Antimicrobial For Shigella		
↓		
Better In 2 Days	→ Yes →	Complete 5 Days Treatment
↓ NO ↓		
Refer To Hospital Or Treat For Amoebiasis		

Antimicrobials that are effective for treatment of Shigellosis	Antimicrobials that are ineffective for treatment of Shigellosis
Ciprofloxacin 15mg/Kg/2 times per day for 3 days Ceftriaxone (100mg/kg) IM/IV once daily for 5 days	- Metronidazole -Streptomycin - Tetracyclines - Chloramphenicol - Sulfonamides - Amoxicillin - Nitrofurans (e.g. nitrofurantoin, furazolidone) - Aminoglycosides (e.g. gentamicin, kanamycin) - First and second generation cephalosporins (e.g. cephalexin, cefamandole).

Management of persistent diarrhoea

Admit child with persistent diarrhoea if:

- Dehydrated (severe persistent diarrhoea) or
- Has associated severe malnutrition or severe illness, or
- Fails to routine OPD management for persistent diarrhea

Management of a Child admitted with persistent diarrhoea

- Manage dehydration as Plan B or C
- Screen for and treat associated systemic infections (pneumonia, otitis media, UTI, dysentery, amoebiasis, giardiasis)
- Supplementary multivitamins and minerals for at least 2 weeks
- Feeding

Up to 6 months

Encourage exclusive breastfeeding. Help mothers who are not breastfeeding exclusively to do so. If child is not breastfeeding give a breast milk substitute that is low in lactose such as yoghurt or is lactose free.

6 months or older: Three recommended diets

The Initial Diet A: [Reduced lactose diet; milk rice gruel, milk sooji gruel, rice with curd, dalia]

Ingredients	Measure	Approximate quantity
Milk	1/3 cup	40ml
Sugar	½ level tsp	2g
Oil	½ level tsp	2g
Puffed rice powder*	4 level tsp	12.5g
Water		To make 100ml

* Can be substituted by cooked rice or sooji

The Second Diet B: [Lactose-free diet with reduced starch]

Ingredients	Measure	Approximate quantity
Egg white	3 level tsp	15g
Glucose	3/4 level tsp	3g
Oil	1 level tsp	4g
Puffed rice powder*	2 level tsp	7g
Water	¾ cup	To make 100ml

The Third Diet C: [Monosaccharide based diet]

Ingredients	Measure	Approximate quantity
Chicken or	2 ½ level tsp	12g
Egg white	5 level tsp	25g
Glucose	¾ level tsp	3g
Oil	1 level tsp	4g
Water	½ - ¾ cup	To make 100ml

Management of severe and complicated malaria cases

Emergency measures: to be taken within the first hour

- Check and correct hypoglycemia
- Treat convulsions
- Manage shock, If present
- If the child is unconscious, minimize the risk of aspiration pneumonia (Insert a nasogastric tube and remove the gastric contents)
- Treat severe anemia, .if present
- Antimalarial treatment
- Provide supportive care if child is unconscious
- Give treatment for bacterial meningitis if cannot be excluded

Drugs for Malaria:

Age or weight	Intravenous* or Intramuscular Quinine (2ml ampoules)		Oral Quinine sulfate tablet	
	150mg/ml**	300mg/ml**	200mg **	300mg**
2 - <4 months (4 - <6kg)	0.4ml	0.2ml	¼	-
4 - <12 months (6 - <10kg)	0.6ml	0.3ml	½	-
1 - <2 years (10 - <12kg)	0.8ml	0.4ml	¾	½
2 - <3 years (10 - <14kg)	1.0ml	0.5ml	¾	½
3 - <5 years (14 – 19kg)	1.2ml	0.6ml	1	½

* Loading dose is double the maintenance dose given above

**Quinine salt

- IV Quinine: Give a loading dose of 20mg/kg of quinine dihydrochloride in 10ml/kg of IV fluid, 5% dextrose saline over 4 hours followed by maintenance dose of 10mg/kg 8 hourly; infusion rate should not exceed 5mg salt/kg of body weight per hour. The parenteral treatment should be given for minimum of 48 hours and once the child tolerates oral therapy, quinine 10mg/kg bw three times a day with clindamycin (20mg/kg/day in 3 divided doses for 7 days) should be given to complete 7 days of treatment. Give single gametocidal dose of primaquine (0.75mg/kg) to prevent transmission in the community. It is essential that quinine is given only if there is close nursing supervision of the infusion and control of the infusion rate. If this is not possible, it is safer to give IM quinine.
- IM Quinine: Give 10mg of quinine salt per kg IM and repeat after 4 hours. Then, give every 8 hours until the malaria is no longer severe. The parenteral solution should be diluted before use because it is better absorbed and less painful.

OR

- IM Artemether: Give 3.2mg/kg on admission then 1.6mg/kg daily for a minimum of three days until the child can take oral treatment.
- IV or IM Artesunate: Give 2.4mg/kg on admission, followed by 2.4mg/kg after 12 hours and 24 hr, then once a day for a minimum of 3 days or until the child can take oral treatment
Complete treatment following parenteral artemisin derivatives by giving a full course of artemisin based combination therapy(ACT).
- Arteether is not recommended in children.

Management of bacterial meningitis

- Manage hypoglycemia
- Manage convulsions
- Give antibiotic treatment*
- Give daily fluids
- Treat malaria if present
- Provide acute nutritional support and nutritional rehabilitation
- Review therapy when CSF results are available

In confirmed cases give treatment for at least 10 days

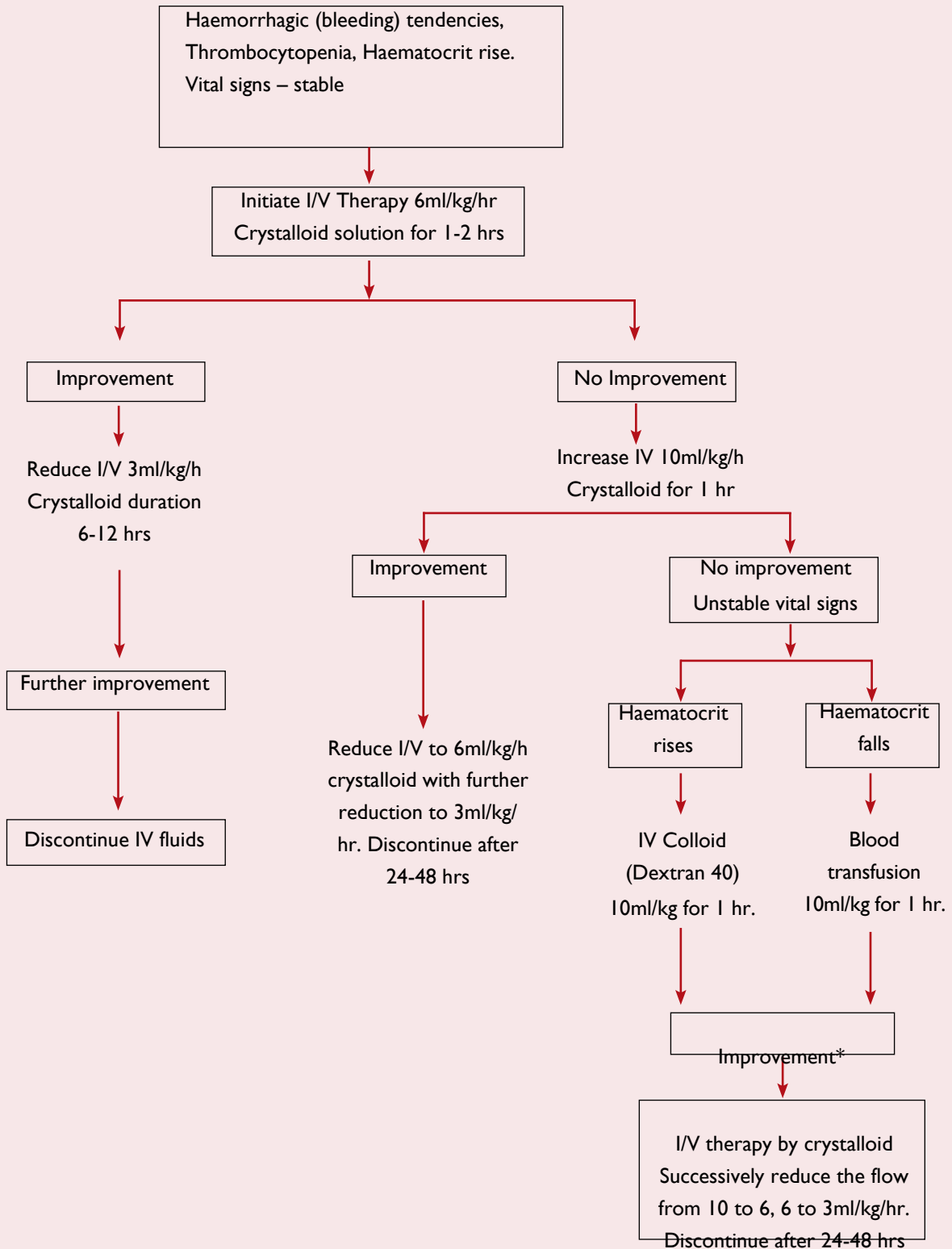
*For antibiotic treatment choose one of the following regimens:

1. Chloramphenicol: 25mg/kg IM/ IV every 6 hours plus ampicillin: 50mg/kg IM/ IV every 6 hours OR
2. Chloramphenicol: 25mg/kg IM/ IV every 6 hours plus benzylpenicillin: 60mg/kg (100 000 units/kg) every 6 hours IM/ IV.
3. Where there is known significant drug resistance of common pathogens (e.g. Haemophilus influenzae or Pneumococcus) use a third-generation cephalosporin.

Age / weight	Inj. Cefotaxime. 50mg/kg 6hrly. Add 2ml sterile water to vial of 500mg (500mg/2.0ml)	Inj. Ceftriaxone. 100mg/kg OD . Add 9.6ml sterile water to vial of 1g (1g/10ml)
2 - <4 months (4 - <6kg)	0.8ml	4ml
4 - <12 months (6 - <10kg)	1.5ml	8ml
1 - <3 years (10 - <14kg)	2.5ml	12ml
3 - <5 years (14 – 19kg)	3.5ml	18ml

Management of Severe dengue

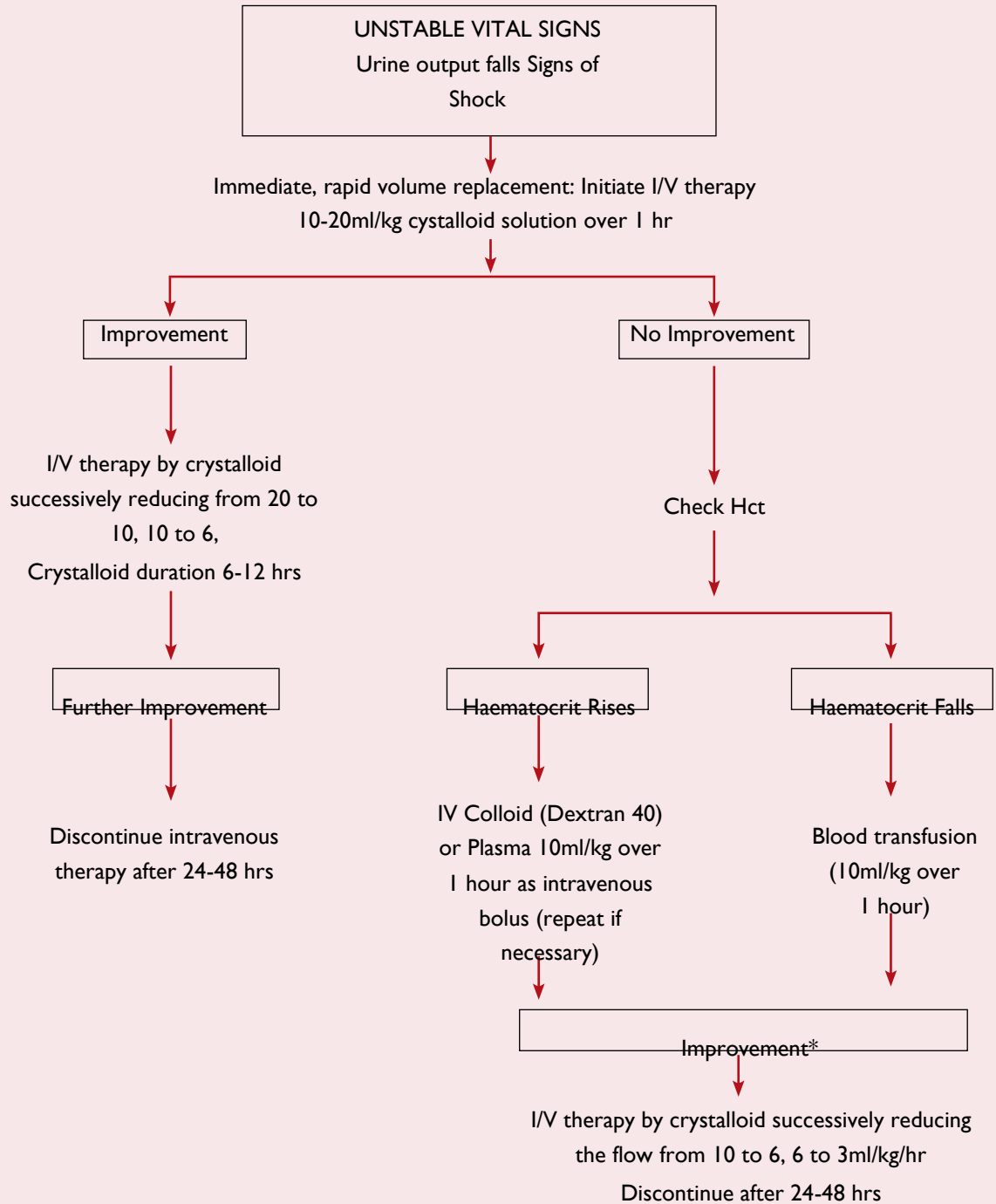
Fluid management – severe dengue without shock DHF-Grade I or II (Pulse pressure >20mm Hg)



* If no improvement, consider adding Dopamine
(as described in management of shock).

Management of Severe dengue

Fluid management – severe dengue with shock (pulse pressure ≤ 20 mm Hg)



* If no improvement consider adding Dopamine (as described in management of shock).

Management of severe malnutrition in a hospital

CRITERIA FOR HOSPITAL ADMISSION:

- Weight-for-length (or height) < -3SD of median of WHO growth standards OR
- Edema of both feet

PROVIDING GENERAL TREATMENT FOR MALNUTRITION

There are ten essential steps in two phases: an initial stabilization phase and a longer rehabilitation phase.

	Stabilization		Rehabilitation
	Days 1-2	Days 3-7	Weeks 2-6
1. Hypoglycaemia	→		
2. Hypothermia	→		
3. Dehydration	→		
4. Electrolytes	→		
5. Infection	→		
6. Micronutrients	— No iron —		→ with iron →
7. Initiate feeding	→		
8. Catch-up growth			→
9. Sensory stimulation	→		
10. Prepare for follow-up			→

Criteria for discharge from hospital care

	Criteria
Child	<ul style="list-style-type: none"> • Weight for height reached - 1SD of WHO median growth standards • Eating adequate amount of nutritious food that mother can prepare at home • Consistent weight gain • All vitamin and mineral deficiencies have been treated • All infections and other conditions have been treated or are being treated like anemia, diarrhoea, malaria, tuberculosis • Full immunization programme started
Mother or caretaker	<ul style="list-style-type: none"> • Able to take care of the child • Able to prepare appropriate foods and feed the child • Has been trained to give structured play therapy and sensory stimulation • Knows how to give home treatment for common problems and recognize danger signs warranting immediate medical assistance
Health worker	<ul style="list-style-type: none"> • Able to ensure follow-up of the child and support the caretaker

General Treatment for Malnutrition

- Step 1. Hypoglycaemia : Immediately on admission, give a feed or 10% glucose or sugar solution . Frequent feeding is important.
- Step 2. Hypothermia : Make sure the child is clothed. Place a heater (not pointing directly at the child) or lamp nearby, or put the child on the mother's bare chest or abdomen (skin-to-skin) and cover them with a warmed blanket and/or warm clothing. Do not use hot water bottles.
- Step 3 Dehydration : Rehydrate orally or through a nasogastric tube. IV rehydration should be used only if the child has signs of shock and is lethargic or has lost consciousness (see chart 5).

Calculate amount of ORS to give

How often to give ORS	Amount to give
Every 30 minutes for the first 2 hours	5ml/kg body weight
Alternate hours for up to 10 hours	5-10ml/kg*

* The amount offered in this range should be based on the child's willingness to drink and the amount of ongoing losses in the stool. Starter formula is given in alternate hours during this period until the child is rehydrated.

- Step 4. Electrolyte imbalance :Give extra potassium (3–4mmol/kg daily).
Syrup Pot klor (15ml = 20meq) can be added to the feeds.
Give extra magnesium.
- Step 5. Infection : Give to all admitted cases Inj. Ampicillin 50mg/kg/dose 6hrly and Inj. Gentamicin 7.5mg/kg once a day for 7 days
- Step 6. Micronutrients : Give oral vitamin A in a single dose. Give same dose on Day 0, 1 and 14 if there is clinical evidence of vitamin A deficiency Other micronutrients should be given daily for at least 2 weeks.
Multivitamin supplement (should contain vitamin A,C,D,E and B12& not just vitamin B-complex): 2 Recommended Daily Allowance
- Folic acid: 5mg on day 1, then 1mg/day
 - Zinc: 2mg/kg/day
 - Copper: 0.3mg/kg/day
 - When weight gain commences and there is no diarrhoea add 3mg of iron /kg/day
- Step 7. Initiate feeding: Give initial feeding (Starter Formula)

Days	Freq	Vol/kg/feed	Vol/kg/day
1-2	2 hourly	11ml	130ml
3-5	3 hourly	16ml	130ml
6 onwards	4 hourly	22ml	130ml

- Step 8. Catch-up growth: Replace the starter formula with an equal amount of catch-up formula for 2 days, on the 3rd day increase each successive feed by 10ml as long as child is finishing feeds. Continue this until some feed remains uneaten.
- Step 9. Sensory stimulation: Provide a caring and stimulating environment
- Step 10. Discharge and prepare for follow-up

WHO reference weight-for-length and weight-for-height

Weight-for-length Reference Card (below 87 cm)

Boys' weight (kg)					Length	Girls' weight (kg)				
-4 SD	-3 SD	-2 SD	-1 SD	Median	(cm)	Median	-1 SD	-2 SD	-3 SD	-4 SD
1.7	1.9	2.0	2.2	2.4	45	2.5	2.3	2.1	1.9	1.7
1.8	2.0	2.2	2.4	2.6	46	2.6	2.4	2.2	2.0	1.9
2.0	2.1	2.3	2.5	2.8	47	2.8	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.7	2.9	48	3.0	2.7	2.5	2.3	2.1
2.2	2.4	2.6	2.9	3.1	49	3.2	2.9	2.6	2.4	2.2
2.4	2.6	2.8	3.0	3.3	50	3.4	3.1	2.8	2.6	2.4
2.5	2.7	3.0	3.2	3.5	51	3.6	3.3	3.0	2.8	2.5
2.7	2.9	3.2	3.5	3.8	52	3.8	3.5	3.2	2.9	2.7
2.9	3.1	3.4	3.7	4.0	53	4.0	3.7	3.4	3.1	2.8
3.1	3.3	3.6	3.9	4.3	54	4.3	3.9	3.6	3.3	3.0
3.3	3.6	3.8	4.2	4.5	55	4.5	4.2	3.8	3.5	3.2
3.5	3.8	4.1	4.4	4.8	56	4.8	4.4	4.0	3.7	3.4
3.7	4.0	4.3	4.7	5.1	57	5.1	4.6	4.3	3.9	3.6
3.9	4.3	4.6	5.0	5.4	58	5.4	4.9	4.5	4.1	3.8
4.1	4.5	4.8	5.3	5.7	59	5.6	5.1	4.7	4.3	3.9
4.3	4.7	5.1	5.5	6.0	60	5.9	5.4	4.9	4.5	4.1
4.5	4.9	5.3	5.8	6.3	61	6.1	5.6	5.1	4.7	4.3
4.7	5.1	5.6	6.0	6.5	62	6.4	5.8	5.3	4.9	4.5
4.9	5.3	5.8	6.2	6.8	63	6.6	6.0	5.5	5.1	4.7
5.1	5.5	6.0	6.5	7.0	64	6.9	6.3	5.7	5.3	4.8
5.3	5.7	6.2	6.7	7.3	65	7.1	6.5	5.9	5.5	5.0
5.5	5.9	6.4	6.9	7.5	66	7.3	6.7	6.1	5.6	5.1
5.6	6.1	6.6	7.1	7.7	67	7.5	6.9	6.3	5.8	5.3
5.8	6.3	6.8	7.3	8.0	68	7.7	7.1	6.5	6.0	5.5
6.0	6.5	7.0	7.6	8.2	69	8.0	7.3	6.7	6.1	5.6
6.1	6.6	7.2	7.8	8.4	70	8.2	7.5	6.9	6.3	5.8
6.3	6.8	7.4	8.0	8.6	71	8.4	7.7	7.0	6.5	5.9
6.4	7.0	7.6	8.2	8.9	72	8.6	7.8	7.2	6.6	6.0
6.6	7.2	7.7	8.4	9.1	73	8.8	8.0	7.4	6.8	6.2
6.7	7.3	7.9	8.6	9.3	74	9.0	8.2	7.5	6.9	6.3
6.9	7.5	8.1	8.8	9.5	75	9.1	8.4	7.7	7.1	6.5
7.0	7.6	8.3	8.9	9.7	76	9.3	8.5	7.8	7.2	6.6
7.2	7.8	8.4	9.1	9.9	77	9.5	8.7	8.0	7.4	6.7
7.3	7.9	8.6	9.3	10.1	78	9.7	8.9	8.2	7.5	6.9
7.4	8.1	8.7	9.5	10.3	79	9.9	9.1	8.3	7.7	7.0
7.6	8.2	8.9	9.6	10.4	80	10.1	9.2	8.5	7.8	7.1
7.7	8.4	9.1	9.8	10.6	81	10.3	9.4	8.7	8.0	7.3
7.9	8.5	9.2	10.0	10.8	82	10.5	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	11.0	83	10.7	9.8	9.0	8.3	7.6
8.2	8.9	9.6	10.4	11.3	84	11.0	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	11.5	85	11.2	10.3	9.4	8.7	8.0
8.6	9.3	10.0	10.8	11.7	86	11.5	10.5	9.7	8.9	8.1

WHO reference weight-for-length and weight-for-height

Weight-for-height Reference Card (87 cm and above)

Boys' weight (kg)					Height	Girls' weight (kg)				
-4 SD	-3 SD	-2 SD	-1 SD	Median	(cm)	Median	-1 SD	-2 SD	-3 SD	-4 SD
8.9	9.6	10.4	11.2	12.2	87	11.9	10.9	10.0	9.2	8.4
9.1	9.8	10.6	11.5	12.4	88	12.1	11.1	10.2	9.4	8.6
9.3	10.0	10.8	11.7	12.6	89	12.4	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	12.9	90	12.6	11.6	10.6	9.8	9.0
9.6	10.4	11.2	12.1	13.1	91	12.9	11.8	10.9	10.0	9.1
9.8	10.6	11.4	12.3	13.4	92	13.1	12.0	11.1	10.2	9.3
9.9	10.8	11.6	12.6	13.6	93	13.4	12.3	11.3	10.4	9.5
10.1	11.0	11.8	12.8	13.8	94	13.6	12.5	11.5	10.6	9.7
10.3	11.1	12.0	13.0	14.1	95	13.9	12.7	11.7	10.8	9.8
10.4	11.3	12.2	13.2	14.3	96	14.1	12.9	11.9	10.9	10.0
10.6	11.5	12.4	13.4	14.6	97	14.4	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	14.8	98	14.7	13.4	12.3	11.3	10.4
11.0	11.9	12.9	13.9	15.1	99	14.9	13.7	12.5	11.5	10.5
11.2	12.1	13.1	14.2	15.4	100	15.2	13.9	12.8	11.7	10.7
11.3	12.3	13.3	14.4	15.6	101	15.5	14.2	13.0	12.0	10.9
11.5	12.5	13.6	14.7	15.9	102	15.8	14.5	13.3	12.2	11.1
11.7	12.8	13.8	14.9	16.2	103	16.1	14.7	13.5	12.4	11.3
11.9	13.0	14.0	15.2	16.5	104	16.4	15.0	13.8	12.6	11.5
12.1	13.2	14.3	15.5	16.8	105	16.8	15.3	14.0	12.9	11.8
12.3	13.4	14.5	15.8	17.2	106	17.1	15.6	14.3	13.1	12.0
12.5	13.7	14.8	16.1	17.5	107	17.5	15.9	14.6	13.4	12.2
12.7	13.9	15.1	16.4	17.8	108	17.8	16.3	14.9	13.7	12.4
12.9	14.1	15.3	16.7	18.2	109	18.2	16.6	15.2	13.9	12.7
13.2	14.4	15.6	17.0	18.5	110	18.6	17.0	15.5	14.2	12.9
13.4	14.6	15.9	17.3	18.9	111	19.0	17.3	15.8	14.5	13.2
13.6	14.9	16.2	17.6	19.2	112	19.4	17.7	16.2	14.8	13.5
13.8	15.2	16.5	18.0	19.6	113	19.8	18.0	16.5	15.1	13.7
14.1	15.4	16.8	18.3	20.0	114	20.2	18.4	16.8	15.4	14.0
14.3	15.7	17.1	18.6	20.4	115	20.7	18.8	17.2	15.7	14.3
14.6	16.0	17.4	19.0	20.8	116	21.1	19.2	17.5	16.0	14.5
14.8	16.2	17.7	19.3	21.2	117	21.5	19.6	17.8	16.3	14.8
15.0	16.5	18.0	19.7	21.6	118	22.0	19.9	18.2	16.6	15.1
15.3	16.8	18.3	20.0	22.0	119	22.4	20.3	18.5	16.9	15.4
15.5	17.1	18.6	20.4	22.4	120	22.8	20.7	18.9	17.3	15.6

Volumes of starter formula per feed (approx 130ml/kg/day)

Child's weight (Kg)	2-hourly (ml/feed)	3-hourly (ml/feed)	4-hourly (ml/feed)
2.0	20	30	45
2.2	25	35	50
2.4	25	40	55
2.6	30	45	55
2.8	30	45	60
3.0	35	50	65
3.2	35	55	70
3.4	35	55	75
3.6	40	60	80
3.8	40	60	85
4.0	45	65	90
4.2	45	70	90
4.4	50	70	95
4.6	50	75	100
4.8	55	80	105
5.0	55	80	110
5.2	55	85	115
5.4	60	90	120
5.6	60	90	125
5.8	65	95	130
6.0	65	100	130
6.2	70	100	135
6.4	70	105	140
6.6	75	110	145
6.8	75	110	150
7.0	75	115	155
7.2	80	120	160
7.4	80	120	160
7.6	85	125	165
7.8	85	130	170
8.0	90	130	175
8.2	90	135	180
8.4	90	140	185
8.6	95	140	190
8.8	95	145	195
9.0	100	145	200
9.2	100	150	200
9.4	105	155	205
9.6	105	155	210
9.8	110	160	215
10.0	110	160	220

Diets recommended in severe malnutrition

Initial diets recommended in severe malnutrition: Starter formula

Diets contents (per 100ml)	Starter formula	Starter formula (Cereal based)Ex: 1	Starter formula (Cereal based) Ex:2
Fresh cow's milk or equivalent (ml) (Approximate measure of one cup)	30 (1/3)	30 (1/3)	25 (1/4)
Sugar (g) (Approximate measure of one level teaspoon)	9 (1 + 1/2)	6 (1)	3 (1/2)
Cereal flour: Powdered puffed rice (g) (Approximate measure of one level teaspoon)	- -	2.5 (3/4)	6 (2)
Vegetable oil (g) (Approximate measure of one level teaspoon)	2 (1/2)	2.5 (1/2+)	3 (3/4)
Water: make up to (ml)	100	100	100

Recommended schedule of Starter Formula with gradual increase in feed volume is as follows:

Days	Freq	Vol/kg/feed	Vol/kg/day
1-2	2 hourly	11ml	130ml
3-5	3 hourly	16ml	130ml
6 onwards	4 hourly	22ml	130ml

Catch Up formulas recommended in severe malnutrition:

Diets Contents(per 100ml)	Catch-up formula	Catch-up formula (cereal based)Ex: 1
Fresh milk or equivalent (ml) (approximate measure of one katori)	95 (3/4+)	75 (1/2)
Sugar (g) (Approximate measure of one level teaspoon)	5 (1)	2.5 (1/2-)
Cereal flour: Puffed rice (g) (Approximate measure of one level teaspoon)	- -	7 (2)
Vegetable oil (g) (Approximate measure of one level teaspoon)	2 (1/2)	2 (1/2)
Water to make (ml)	100	100

Counsel the Mother

Feeding Recommendations during Sickness and Health

<p>Up to 6 months of age</p> <ul style="list-style-type: none"> • Breastfeed as often as the child wants, day & night, at least 8 times in 24 hrs. • Do not give any other food or fluids not even water. <p><u>Remember :</u></p> <ul style="list-style-type: none"> • Continue breastfeeding if the child is sick 	<p>6 months up to 12 months</p> <ul style="list-style-type: none"> • Breastfeed as often as the child wants • Give at least 1 katori serving* at a time of: <ul style="list-style-type: none"> - Mashed roti/bread mixed in thick dal with added ghee/oil or khichdi with added oil/ghee. Add cooked vegetables also in the servings or - Sevian/dalia/ halwa/kheer prepared in milk or - Mashed boiled/fried potatoes - Offer banana/biscuit/ cheeko/mango/ papaya * 3 times per day if breastfed, 5 times per day if not breastfed. <p><u>Remember</u></p> <ul style="list-style-type: none"> • Keep the child in your lap & feed with your own hands • Wash your own & child's hand with soap & water every time before feeding 	<p>12 months up to 2 years</p> <ul style="list-style-type: none"> • Breastfeed as often as the child wants • Offer food from the family pot • Give at least 1 1/2 katori serving* at a time of <ul style="list-style-type: none"> - Mashed roti/bread mixed in thick dal with added ghee/oil or khichdi with added oil/ghee. Add cooked vegetables also in the servings or - Mashed roti/rice/bread mixed in sweetened milk or - Sevian/dalia/ halwa/kheer prepared in milk or - Offer banana/biscuit/ cheeko/mango/ papaya * 5 times per day <p><u>Remember</u></p> <ul style="list-style-type: none"> • Sit by the side of child & help him to finish the serving • Wash your own & child's hand with soap & water every time before feeding 	<p>2 years & older</p> <ul style="list-style-type: none"> • Give family foods at 3 meals each day • Also, twice daily, give nutritious food between meals, such as : <ul style="list-style-type: none"> - Banana/biscuit/ cheeko/ mango/ papaya as snacks <p><u>Remember :</u></p> <ul style="list-style-type: none"> • Ensure that the child finishes the serving • Teach your child wash his hands with soap and water every time before feeding
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Maintenance fluid requirements

The total daily fluid requirement of a child is calculated with the following formula: 100ml/kg for the first 10kg, then 50ml/kg for the next 10kg, thereafter 25ml/kg for each subsequent kg. For example, an 8kg baby receives $8 \times 100\text{ml} = 800\text{ml}$ per day, a 15kg child $(10 \times 100) + (5 \times 50) = 1250\text{ml}$ per day.

Body weight of child	Fluid (ml/day)
2kg	200ml/day
4kg	400ml/day
6kg	600ml/day
8kg	800ml/day
10kg	1000ml/day
12kg	1100ml/day
14kg	1200ml/day
16kg	1300ml/day
18kg	1400ml/day
20kg	1500ml/day
22kg	1550ml/day
24kg	1600ml/day
26kg	1650ml/day

Give the sick child more than the above amounts if there is fever (increase by 10% for every 10 C of fever).

RECORDING FORM
Assessment of Sick Young Infant in Health facility

Name _____ Age _____ (days) Sex _____ Reg. No. _____

Date of Birth _____ Time of Birth _____ Birth Weight _____ g

Presenting Complaints:

Antenatal History

Maternal Illness: Anemia / PIH / Diabetes / Others (specify)

Leaking PV: Present / Absent ; Duration _____ (hrs)

If Leaking >24 hr - Ask For: Fever / Foul smelling liquor

TT Immunization: Yes / No

Delivery History

Place of Delivery: Institution / Home

Type of Delivery: Vaginal/Forceps/Cesarean

Presentation: Vertex/breech / other

Person conducting delivery: TBA /ANM /Nurse /Doctor / Others

Did the baby cry at birth? Yes/ No

Did the baby need resuscitation? Yes / No (if yes, provide details)

Infant Immunization

BCG OPV0 DPT1 OPV1 HEPBI

Examination

Weight: _____ g severely underweight/moderately underweight/not low weight for age

Gestation: Term / Preterm Temperature _____

Heart Rate _____ CRT ≤3 sec / >3 sec

Respiratory rate: _____ Nasal flaring/ grunting/ apnea/ cyanosis

- Bulging anterior Fontanelle
- Pustules: less than 10, more than 10 or big boils
- Umbilical Discharge/ Redness: Present/ Absent
- Ear Discharge: Present/ Absent
- Pallor: Present / Absent
- Jaundice: Present / Absent If present: Face / Chest / Abdomen / Soles
- Abdominal distension: Present/ Absent
- Activity: lethargy/ irritable
- Abnormal movement: seizure/ jitteriness
- Bleeding from any site

If Diarrhoea present, Assess for dehydration

- Sunken eyes
- Skin pinch immediate/ slowly / very slowly

Assess For feeding

Ask Mother

- Is there any difficulty in feeding the infant?
- Is she breast feeding the infant?
- If yes, how many times a day? _____
- Has the infant received any other foods or drinks?
If Yes, what and how ? _____

If there is difficulty in feeding or feeding less than 8 times/day or receiving other foods/fluids or low or very low weight then assess breast feeding

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

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

no attachment at all not well attached good attachment

- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?
not suckling at all not suckling effectively suckling effectively
If not sucking well, then look for:
- ulcers or white patches in the mouth (thrush).

Any Other Examination:

Provisional Diagnosis

Plan of Management:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Monitoring

Proforma for Assessment of Sick Child

Case Recording Form

Date

Name----- Age----- Sex----- Wt----- Temp -----

ASK: What are the infant's problems?

<p>ASSESS (Circle all signs present)</p>	<p>Emergency treatments</p> <ul style="list-style-type: none"> • Check for head/neck trauma before treating child – do not move neck if cervical spine injury possible • EMERGENCY SIGNS: (If any sign positive: give treatment(s), call for help, draw blood for emergency laboratory investigations (glucose, malaria smear, Hb)
<p>AIRWAY AND BREATHING</p> <ul style="list-style-type: none"> • Not breathing or gasping or • Central cyanosis or • Severe respiratory distress (Respiratory rate ≥ 70/min, Severe lower chest in-drawing, Grunting, Head nodding, Apnoeic spells, Unable to feed due to respiratory distress, Stridor in a clam child) 	
<p>CIRCULATION</p> <p>Cold hands with:</p> <ul style="list-style-type: none"> • Capillary refill longer than 3 seconds, and • Weak and fast pulse <p>IF POSITIVE Check for severe acute malnutrition</p>	
<p>COMA CONVULSING</p> <ul style="list-style-type: none"> • Coma (AVPU) or • Convulsing (now) 	
<p>SEVERE DEHYDRATION (ONLY IN CHILD WITH DIARRHOEA)</p> <p>Diarrhoea plus any two of these:</p> <ul style="list-style-type: none"> • Lethargy • Sunken eyes • Very slow skin pinch <p>If two signs positive check for severe acute malnutrition</p>	
<p>PRIORITY SIGNS</p> <ul style="list-style-type: none"> • Tiny baby (<2 months) • Respiratory distress (RR>60/min) • Temperature <36.5°C or >38.5°C • Bleeding • Restless, Continuously irritable, or lethargy • Trauma or other urgent surgical condition • Referral (urgent) • Pallor (severe) • Malnutrition: Visible severe wasting • Oedema of both feet • Poisoning • Burns (major) 	

Check temperature if baby is cold to touch, rewarm

- **History**

- **Immunization**

- **Examination**

- Temperature
- Weight for Length/height
- Neck Rigidity
- Eye- pus/bitots spots/corneal involvement
- Skin- depigmentation/desquamation/petichae/purpura/ecchymosis
- Generalized lymphadenopathy
- Pedal odema
- Pulse
- Pallor
- Resp. Rate
- Sensorium
- Jaundice
- Weight
- Bulging AF

- system- **Cardio-vascular**

- system- **Abdominal**

- examination- **Central**

- nervous system-

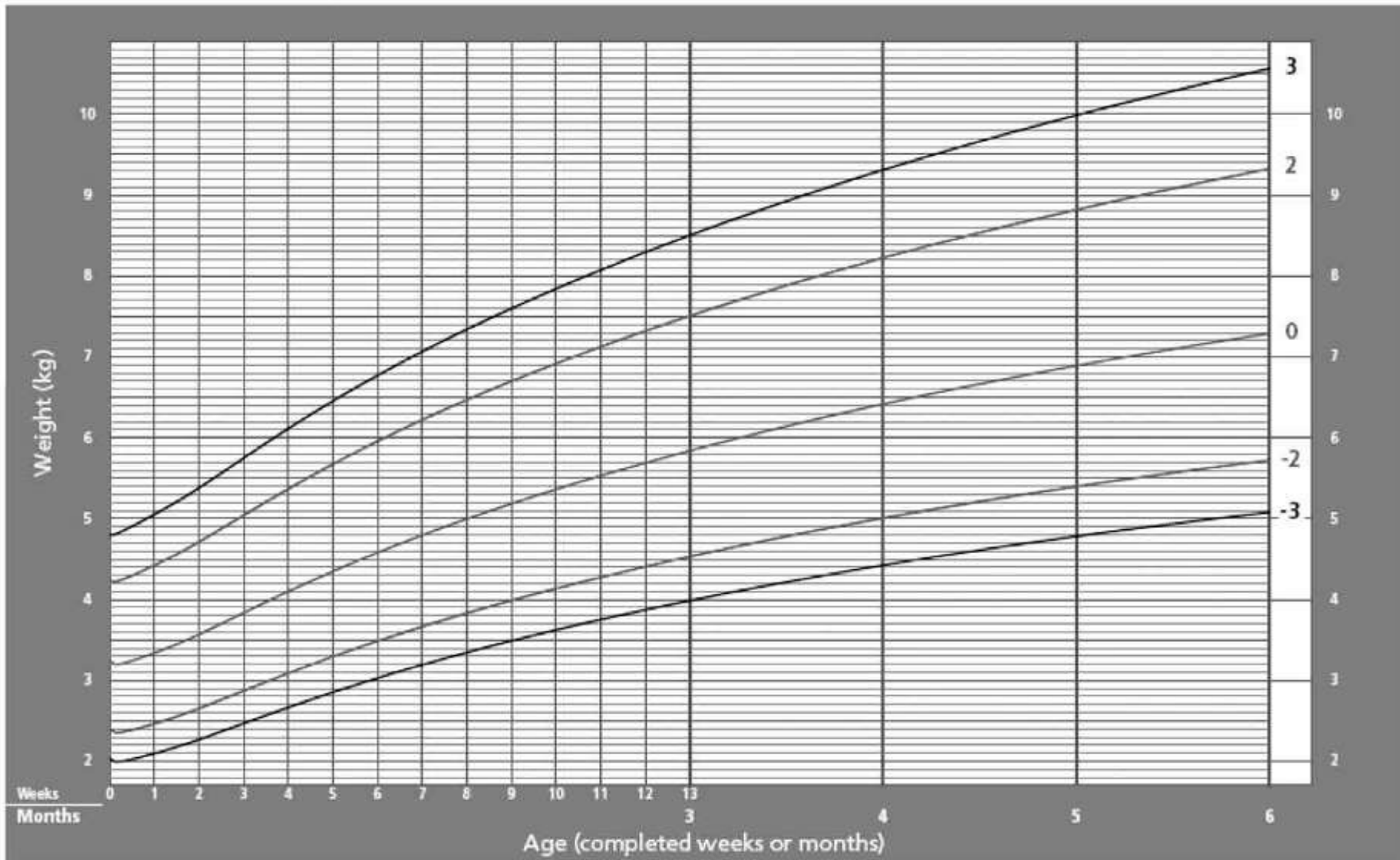
- **Differential diagnosis**

- **Lab Investigations**

- **Management**

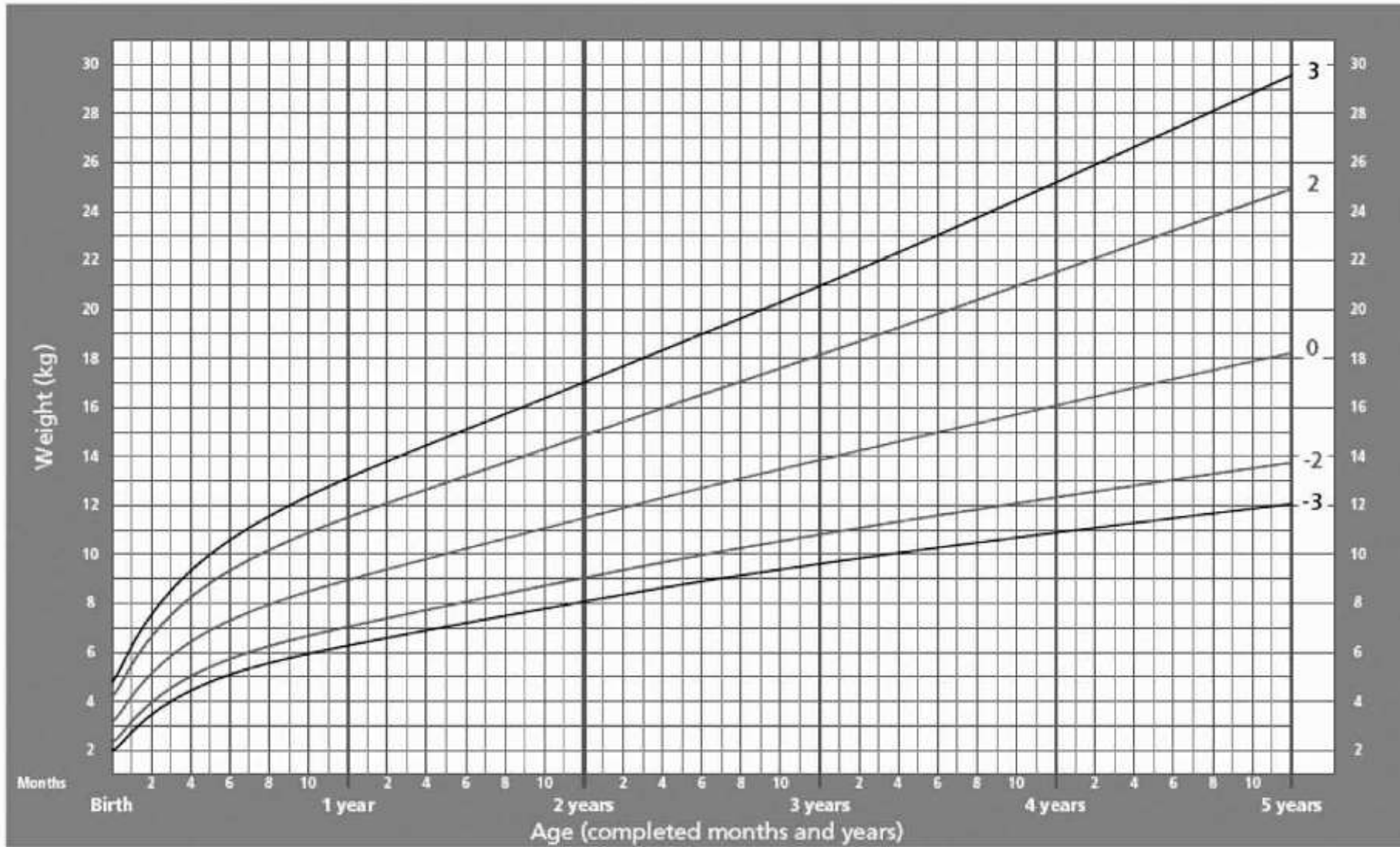
Weight-for-age GIRLS

Birth to 6 months (z-scores)



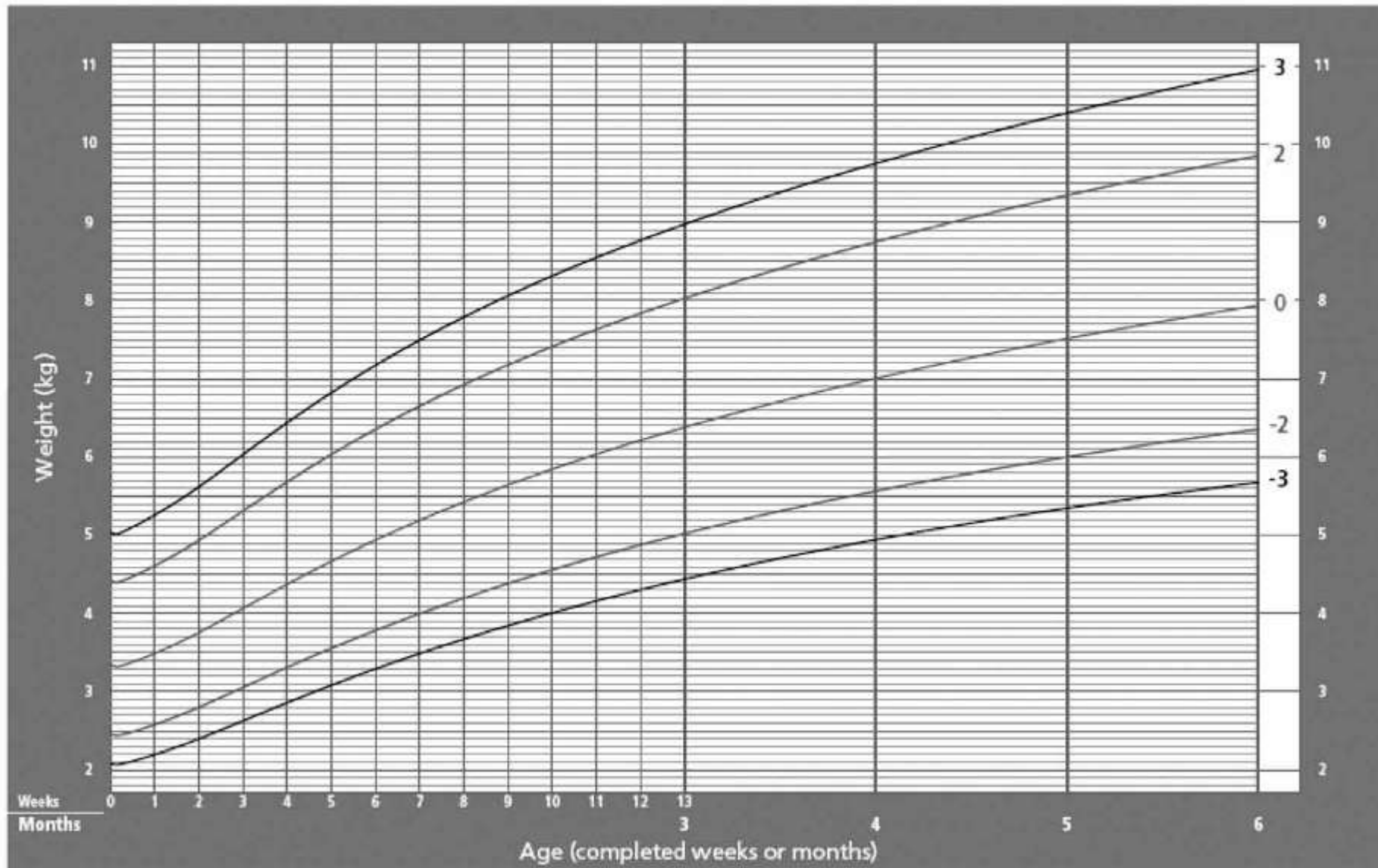
Weight-for-age GIRLS

Birth to 5 years (z-scores)



Weight-for-age BOYS

Birth to 6 months (z-scores)



Weight-for-age BOYS

Birth to 5 years (z-scores)

