

**Ministry of Health
Sultanate of Oman**

**Integrated Management of Childhood Illnesses
& Comprehensive Child Care**

**CHART BOOK FOR PRIMARY HEALTH CARE LEVEL
Second Edition, 2004**

Directorate General of Health Affairs

Table of contents

SECTION 1 : TRIAGE		Page	SECTION 4: CHILD HEALTH ROUTINES		Page
1	Vitals	4	1	Clinical checks	19
2	Assess purpose of visit	4	2	Feeding & psychosocial assessment	20
3	Check for General Danger Signs	4	SECTION 5: FOLLOW UP CARE		
4	Check reasons for special care	5	1	Feeding problems & PEM	25
5	Assess & manage nutrition status	5	2	Anemia	25
6	Check status of child health routines	5	3	Pneumonia	25
7	Check immunization status	5	4	Ear problem	26
SECTION 2 CLASSIFATION & TREATMENT		6	5	Throat problem	26
1	Cough or difficult breathing	7	6	Dysentery & Persistent diarrhea	26
2	Recurrent wheeze	8	7	Febrile illness	26
3	Ear problem	9	SECTION 6: SICK YOUNG INFANT		
4	Throat problem	10	1	Triage & routine assessments	28
5	Diarrhea	11	2	Check for severe infection	29
6	Fever	12	3	Check for local / minor infections	29
7	Other problems	13	4	Check for jaundice	29
8	Treatment for local infections	14	5	Check for diarrhea	29
9	Oral Rehydration Therapy	15	SECTION 8 : ANNEXURE		
SECTION 3 : COUNSELING CARE –GIVER		16	1	Accidents & injuries	31
1	Home care	17	2	Poisonings	33
	Feeding	17	3	Common emergencies	36
	How to give medications	17	4	Emergency procedures	37
2	Danger signs	17	5	Emergency medications	38
3	Future prevention	18	6	Non –emergency medications	39
4	When to return	18	7	Diagrams & illustrations	40

Section .1

TRIAGE & ASSESSMENT OF NUTRITION STATUS

TRIAGE CHILDREN FOR INTEGRATED MANAGEMENT

Record personal data and vitals and reason for visit

Ask and record the main complaints

If the child has cough or difficult breathing count Respiratory rate for 1 minute and observe for chest in drawing.

Check for General Danger Signs for all children as follows:

<p>ASK</p> <p>Is the child able to drink well today? Does the child vomit everything? Has the child had any convulsion recently?</p>	<p>Examine for Lethargy</p>
---	--

If the child has any ONE of the general danger signs take the child for urgent assessment and any pre-referral treatment before referral to hospital.

If the child has no danger signs and not seriously ill proceed as follows

Ask for the baby's health card (pink card)

Check the pink card to see if the child has any reasons for special care such as congenital anomalies , genetic blood disorders , hypothyroidism or any other chronic illness

Check Nutrition status

Check baby's weight and enter on the card and plot the curve if not plotted in the current month

Assess the weight, classify and identify treatment as below:

SIGNS	CLASSIFY AS	IDENTIFY TREATMENT
<ul style="list-style-type: none"> Weight for age below -ve 3rdSD RED ZONE 	PEM Severe	<ul style="list-style-type: none"> Notify using form HE-23 Refer to hospital for further assessment
<ul style="list-style-type: none"> Weight for age between -ve 2nd and -ve 3rdSD YELLOW ZONE 	PEM moderate	<ul style="list-style-type: none"> Treat any other illness the child may have such as diarrhea, ARI or worm infestation Refer the child to community nutritionist or nutrition focal point for registration and follow up Do a feeding assessment & counsel mother
<ul style="list-style-type: none"> Weight above -ve 2nd SD GREEN ZONE 	No PEM	<ul style="list-style-type: none"> No treatment necessary Praise the care giver

Check for palmar pallor and if pallor is observed ask for Hb, classify and identify treatment as follows:

SIGNS	CLASSIFY AS	IDENTIFY TREATMENT
▪ Hb level below 7 gms per dl	Severe anemia	▪ Refer to hospital
Hb from 7 – <11 gms /dl	Moderate anemia	<ul style="list-style-type: none"> ▪ Check for sickle cell ▪ If sickle test is negative start on oral iron & follic acid orally ▪ Advice mother about iron rich food ▪ Recheck Hb after 2 week ▪ If Hb is increasing give iron therapy ▪ Recheck Hb every month until it is 11 gms or more /dl ▪ Continue iron therapy for 3- 4 months after Hb is 11 gms/ dl
Hb 11 gms /dl or more	No anemia	<ul style="list-style-type: none"> • No treatment necessary • Praise the care giver

Check status of child health routine

Check if the child is due for routine physical checks. (Refer pink card front panel). If due proceed as in section 4.

Check if the child is due for feeding and psychosocial assessment (refer pink card front panel), if due proceed as in section 4.

Check for immunization. (Refer pink card front panel). If immunized to date praise the care- giver, if due proceed with the immunization

If care giver prefers to have consultation for the child's illness first send the child to the doctor for assessment and treatment as in section 2. Other wise proceed with routine check / feeding& psychosocial assessment as in section 4.

Routine child health and feeding and psychosocial assessment should carried for children who visit for minor ailments . If the child is not well enough the child should reviewed as soon as the child improves

Section: 2

**ASSESSMENT, CLASSIFICATION & TREATMENT OF
CHILDREN AGED 2 MONTHS UPTO 5 YEARS**

Does the child have cough or difficult breathing? If YES

ASK

For how long?

EXAMINE FOR

(CHILD MUST BE CALM)

- Fast breathing
- Chest in-drawing
- Wheeze

If child's age is:

2 Months up to 12 months

12 months up to – 5 years

***Fast breathing**

50/ minute or more

40/ minute or more

Notes:

- Chest in-drawing is inward movement of the whole lower chest wall when the child breathes IN
- Supra-clavicular and intercostal retractions are not considered as chest in-drawing.
- Mild chest indrawing is normal in young infants since their chest wall is soft, but severe chest indrawing (very deep and easy to see) is a sign of severe pneumonia.
- Make sure that the child is not upset or crying and tell the mother not to wake the child up or undress the child
- Count the number of breaths in one minute with out undressing the child. Count a second time if in doubt after undressing the child
- If child has fever, give paracetamol to reduce temperature and recount number of breaths
- Now look for the chest in-drawing by asking the mother to lift the clothes so that you can see the lower part of the chest.
- Listen for stridor. If stridor is present at rest treat as severe croup (Refer Annexure 3)

SIGNS	CLASSIFICATION	TREATMENT
<ul style="list-style-type: none"> ▪ Any general danger sign OR ▪ Chest in-drawing 	Severe pneumonia	<ul style="list-style-type: none"> • Stabilize the child (ABC) as necessary and give inj. Ceftriaxone IV/iM • Give nebulised salbutamol if wheezing is present • Refer to hospital urgently
<ul style="list-style-type: none"> ▪ Fast breathing * 	Pneumonia	<ul style="list-style-type: none"> • Give Paracetamol for fever • Ask care-giver to put normal saline nasal drops for relief of blocked nose • Prescribe Amoxycillin orally for 5 days. • Follow up after 2 days • Advise care-giver when to return immediately
<ul style="list-style-type: none"> ▪ Fast breathing ▪ Wheeze 	Pneumonia with Wheeze	<ul style="list-style-type: none"> • Give nebulised salbutamol and reassess Respiratory Rate ▪ If RR is still above normal for age prescribe Salbutamol & treat as pneumonia as above ▪ If RR is normal after nebulized Salbutamol treat as cough cold with wheeze as below
<ul style="list-style-type: none"> ▪ Wheeze 	Coryza with wheeze	<ul style="list-style-type: none"> • Same as above • Prescribe also salbutamol
<ul style="list-style-type: none"> ▪ No chest in-drawing ▪ No fast breathing ▪ No wheeze 	Coryza	<ul style="list-style-type: none"> • Praise care giver for bringing child early. • Give paracetamol if child has fever. • Ask care-giver to put normal saline nasal drops for relief of blocked nose • Ask care-giver to give cough remedy at home • Advise care-giver when to return immediately

IF CHILD HAS RECURRENT COUGH OR WHEEZE AND THE CHILD IS ONE YEAR CLASSIFY AND MANGE AS PER CHART ON THE NEXT PAGE

ASSESS**CLASSIFY****IDENTIFY TREATMENT**

Does the child have a recurrent cough or wheeze? If YES (only for children above 1 year)

Ask

- How often has a day time symptom?
- How often has night time symptoms?

Notes

1. Symptoms refer to cough or difficult breathing
2. Sometimes cough may be the only symptom of asthma.
3. Poor response to inhaled salbutamol may be due to other causes of wheezing such as **aspiration pneumonia or bronchial foreign bodies** and such cases should be referred for further assessment.
4. The classification (steps) should be revised periodically and treatment modified accordingly. The child may move up or down on the steps.
5. If child is reclassified, doses should be changed gradually

SIGNS	CLASSIFY AS	IDENTIFY TREATMENT
<ul style="list-style-type: none"> ▪ Day symptoms: almost continuous OR ▪ Night symptoms: frequent 	Severe recurrent wheeze	<ul style="list-style-type: none"> • Refer hospital for admission / consultation by pediatrician
<ul style="list-style-type: none"> ▪ Day symptoms: almost daily OR ▪ Night symptoms: 5 or more times a month 	Moderate recurrent wheeze	<ul style="list-style-type: none"> ▪ Advise to use broncho dilator as needed for symptoms up to 3 times a day ▪ Obtain a paediatric consultation ▪ Continue long term treatment as advised by paediatrician
<ul style="list-style-type: none"> ▪ Day symptoms off and on ▪ Night symptoms upto 4 times a month 	Mild recurrent Wheeze	<ul style="list-style-type: none"> ▪ Advise to use bronchodilator as needed for symptoms (up to 3 times a day) ▪ Advise care-giver when to return immediately ▪ Counsel mother about home care

REFER ANNEX 3 page 36 for management of acute wheeze
Also refer MOH Bronchial Asthma manual for details

Does the child have ear problem? If YES

Ask

Is there pain ?
Is there discharge?
If yes, for how long?

Examine for

- Pus discharge from ear
- Tender swelling behind the ear (Over the mastoid)

SIGNS	CLASSIFICATION	TREATMENT
<ul style="list-style-type: none"> ▪ Tender swelling behind the ear (over the mastoid bone) 	acute Mastoiditis	<ul style="list-style-type: none"> ▪ Refer to hospital urgently
<ul style="list-style-type: none"> • Severe ear pain OR • Pus discharge for less than 14 days 	Acute otitis media	<ul style="list-style-type: none"> • Prescribe Amoxycillin for 5 days ▪ Give Paracetamol for pain relief • Follow up in 2 days and change to second line antibiotic (Amoxy + clavani acid) if no clinical improvement • If improved continue treatment for 5 more days • Tell care-giver to bring the child back if she observes swelling behind the ear and any one of the general danger signs
<ul style="list-style-type: none"> ▪ Pus discharge for 14 days or more 	Chronic otitis media	<ul style="list-style-type: none"> • Teach care-giver how to keep ear dry by using a wick (Refer section No. 3 on page No.15) • Refer ENT
<ul style="list-style-type: none"> ▪ No signs as above 	Other problems	<ul style="list-style-type: none"> • Treat as usual

Note :- Otoscopy may be used for confirmation whenever necessary

Check for throat problem (if child has fever or if the child is above 2 years)

EXAMINE FOR	SIGNS	CLASSIFICATION	TREATMENT
<ul style="list-style-type: none"> • <i>Enlarged tender lymph nodes in front of the neck</i> • White/yellow exudates on the tonsils • Congestion 	<ul style="list-style-type: none"> ▪ Enlarged tender lymph nodes in front of the neck AND ▪ White/yellow exudates on the throat 	Possible streptococcal sore throat	<ul style="list-style-type: none"> ▪ Obtain throat swab for culture if facility is available ▪ *Prescribe oral Penicillin for 10 days (Erythromycin if child is sensitive to penicillin) ▪ Give Paracetamol for fever ▪ Advise mother when to return immediately ▪ Review in 5 days ▪ Discontinue treatment if culture is negative
	<ul style="list-style-type: none"> • Congestion of throat with not enough signs to classify as streptococcal sore throat 	Possible non-streptococcal sore throat	<ul style="list-style-type: none"> • Give paracetamol to relieve fever • Advise mother when to return immediately • Follow up after 5 days, if no improvement refer to pediatrician
	<ul style="list-style-type: none"> • Any other signs 	Other problems	<ul style="list-style-type: none"> • Treat as usual

Note Prescribe Amoxicillin if child is classified as having pneumonia also. Classify as possible streptococcal sore throat if the throat is severely congested (red hot throat and the child has high fever (38 degree C or more) even if the other signs are absent

Does the child have diarrhea? If YES

ASK

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

EXAMINE FOR

- Irritability
- Not able to drink / drinks poorly or drinks eagerly
- Sunken eyes
- Skin pinch goes back slowly / very slowly

SIGNS	CLASSIFICATION	TREATMENT
A: Diarrhea		
Diarrhea of less than 14 days & (Any 2 of the following) <ul style="list-style-type: none"> ▪ Lethargic or unconscious ▪ Sunken eyes ▪ Not able to drink or drinks poorly ▪ Skin pinch goes back very slowly (more than 2 seconds) 	Acute diarrhea & Severe Dehydration	<ul style="list-style-type: none"> • Start plan C • Refer to hospital urgently
Diarrhea of less than 14 days & (Any 2 of following) <ul style="list-style-type: none"> ▪ Irritable or restless ▪ Sunken eyes ▪ Drinks eagerly or thirsty ▪ Skin pinch goes back slowly 	Acute diarrhea & Mild to moderate dehydration	<ul style="list-style-type: none"> • Treat as plan B
Diarrhea of less than 14 days & <ul style="list-style-type: none"> ▪ Not enough signs to classify as mild to moderate dehydration 	Acute diarrhea & No dehydration	<ul style="list-style-type: none"> • Treat as plan A • Demonstrate how to mix and give ORS • Counsel the mother about home care
B: Persistent diarrhea		
Diarrhea of 14 days or more & <ul style="list-style-type: none"> ▪ Signs dehydration as above 	Persistent diarrhea & dehydration	<ul style="list-style-type: none"> • If there is severe dehydration, give plan C & refer to hospital urgently • If there is mild to moderate dehydration, give plan B & refer to hospital.
<ul style="list-style-type: none"> ▪ Diarrhea of 14 days or more & ▪ No dehydration 	Persistent diarrhea & No dehydration	<ul style="list-style-type: none"> • Correct diet Refer feeding recommendations • Do stool tests (microscopy, pH, reducing substance) • Culture & Sensitivity if facility available • Assess feeding & treat as necessary • Refer as necessary
C: Dysentery		
Diarrhea & Blood in stool	Dysentery	<ul style="list-style-type: none"> • Do stool microscopy & culture if facility is available • Treat dehydration if present • Prescribe *Nalidixic acid / Cephadrine for 5 days • Treat with Metronidazole if amoebae or giardia is detected on stool test • Refer to hospital if child has PEM or if child is less than 1 year

Does child have fever (by history or axillary temperature of 37.5°C or above) If Yes

ASK

For how long?
Has traveled to malaria area ?
Has dysuria or frequency? (for a child more than 2 years)

EXAMINE FOR

- General danger signs
- Neck stiffness
- Runny nose
- Generalized rash.
- Irritability

SIGNS	CLASSIFICATION	TREATMENT
<ul style="list-style-type: none"> ▪ "Any general danger signs OR stiff neck" OR bulging fontanelle 	Possible Meningitis / Sepsis	<ul style="list-style-type: none"> ▪ Stabilise child (ABC) ▪ ¹Give inj. Ceftriaxone IM 50 mg /Kg ▪ Refer to hospital urgently
<ul style="list-style-type: none"> ▪ Generalized rash AND ▪ Runny nose or red eyes 	Probable measles	<ul style="list-style-type: none"> ▪ Check on immunization of the case & contacts ▪ Give Vitamin A if not given already ▪ Refer to pediatrician for confirmation & urgent notification
<ul style="list-style-type: none"> ▪ Has traveled to malaria zone OR ▪ No cough or runny nose or red eyes AND ▪ No obvious cause detected for fever 	Probable Malaria	<ul style="list-style-type: none"> ▪ Check blood smear for malarial parasite and if positive: ▪ Refer to hospital for admission ▪ Refer to malaria management guidelines of M.O.H
<ul style="list-style-type: none"> ▪ No cause identified for fever OR ▪ Dysuria or frequency (Rarely seen in infants under 2 years) 	Probable Urinary Tract Infection	<ul style="list-style-type: none"> ▪ Do urine microscopy ▪ If urine microscopy shows 20 WBC or more per cubic mm ,refer for pediatric consultation ▪ If urine microscopy shows less than 20 WBCs per cubic mm, manage as fever cause unknown (see last row)
<ul style="list-style-type: none"> ▪ <i>Already classified*</i> 	Fever cause known	<ul style="list-style-type: none"> ▪ Treat as per classification
<ul style="list-style-type: none"> • Fever & no cause identified AND • Urine microscopy negative AND • MP negative 	Fever cause unknown.	<ul style="list-style-type: none"> ▪ If more than 5 days refer , if 5 days or less ▪ Do CBC (if facility available) ▪ Refer for urgent pediatric consultation if : <ul style="list-style-type: none"> ▶ child is less than 1 year OR ▶ temperature is 39 or more OR ▶ child is irritable OR ▶ TLC is less than 5000 or more than 15000/cubic mm. ▪ Otherwise give paracetamol to relieve fever and review in 2 days

*Classify as fever **cause known** if child has already been classified as Cough cold / pneumonia / throat infection , diarrhea / dysentery, measles, malaria or UTI. Manage child as per classification.

¹ If a delay of more than 2-3 hours is anticipated for reaching the hospital

TREATMENT OF LOCAL INFECTIONS AND COUGH

- Explain to the care-giver what the treatment is and why it is given
- Describe the treatment steps given in appropriate box
- Watch the care-giver as she gives the first treatment at the clinic (except cough remedy)
- Tell her how often to give treatment at home
- Check the care-giver's understanding

Dry the ear by using a wick

Dry the ear at least 3 times daily as follows

- Roll soft tissue paper into a wick
- Place the wick in child's ear
- Remove the wick when wet
- Replace the wick with a clean one and repeat the above steps until the ear is dry

Treat mouth ulcers

Treat the mouth ulcers 3 times daily

Wash hands

Clean the child's mouth with clean water

Paint the mouth with mycostantin suspension if oral thrush is suspected (white patches)

Otherwise paint mouth with boroglycerine

*

Treat eye infections

Clean both eyes 2-3 times daily

- Wash hands
- Ask child to close eyes
- Use clean tissue and water to wipe away pus

Put antibiotic eye drops (2 drops in each eye) 4 –6 times in the day

Apply eye ointment to both eyes at night

- Ask the child to look up
- Squirt a small amount of ointment on the lower lid
- Wash hands again

Soothe the throat and relieve cough with a safe remedy

- Mix Juice of one lemon
- Add equal amount of honey and twice the amount of clean water
- Give the child 1 teaspoon 3-4 times a day

Discourage cough medications

- Avoid cough syrup or mixtures containing codeine (because they cause constipation)
- Avoid antihistaminic medications (because they cause side effects such as drowsiness/ dryness and have not been proven to be very effective in evidence based reviews)

TREATMENT OF DEHYDRATION

Plan A

COUNSEL ON THE 3 RULES OF HOME TREATMENT
GIVE EXTRA FLUID, CONTINUE FEEDING & WHEN TO RETURN

1 GIVE EXTRA FLUID (as much as child will take)

TELL THE CARE-GIVER

- Breast feed frequently and longer at each feed
- If child is breastfed, give ORS in clean water in addition to breastfeeding
- If child is not exclusively breast fed give one or more of the following :ORS, food based solutions (such as soup, rice water and yogurt drinks or clean water)

It is especially important to give ORS at home when:

- The child has been treated with plan B or C this time
 - The child cannot return to clinic if diarrhea goes worse
- TEACH CAREGIVER HOW TO MIX AND GIVE ORS.
GIVE MOTHER 2 PACKET OF ORS TO USE AT HOME
- SHOW CARE-GIVER HOW MUCH FLUID TO GIVE IN ADDITION TO THE USUAL FLUID INTAKE

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

Tell the care-giver to :

- Give frequent small sips from a cup
- If the child vomits, wait 10 minutes, continue but slowly
- Continue giving extra fluids until the diarrhea stops

2. CONTINUE FEEDING
3. WHEN TO RETURN } see counsel care-giver

Plan B (Mild to moderate dehydration)

Give in the clinic recommended amount of ORS over 4 hour period

➤ DETERMINE THE AMOUNT OF ORS

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	10kg - <12 kg	12- 14 kg
Mls of ORS	200- 400	400 – 700	700-900	900-1400

- If the child want more ORS give more
- For infants under 6 months who are not breast fed, give also 100-200 mls of clean water during this period

SHOW CARE-GIVER HOW TO GIVE ORS SOLUTION

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

AFTER 4 HOURS

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

IF CARE-GIVER MUST LEAVE BEFORE COMPLETING TREATMENT

- Show her how to prepare ORS at home
- Show her how much more ORS to give to finish 4 hour treatment
- Give her enough ORS to finish the treatment in addition to 2 packets as per plan A
- Explain the 3 rules of home treatment

1. GIVE EXTRA FLUID

Section 3

**COUNSELING CARE- GIVER ABOUT HOME CARE,
DANGER SIGNS, FOLLOW UP AND FUTURE
PREVENTION**

COUNSELING METHOD

When counseling caregiver: (1) use words that s/he understands (2) use teaching aids that are familiar (3) give feedback when s/he practices (4) praise what was done well and make corrections; (5) allow more practice, if needed and (5) encourage to ask questions and answer all questions. Finally check the caregiver's understanding. The caregiver should be counseled on home management, danger signs and prevention of the problem. Use local terminology for illnesses whenever possible.

Home care

Teach how to give oral drugs or to treat local infections. Advise to continue feeding and increase if necessary. The following steps should be followed when teaching caregiver how to give oral drugs:

- Determine the appropriate drugs and dosage for the child's age or weight
- Tell the mother or caregiver what the treatment is and why it should be given
- Demonstrate how to measure a dose
- Watch the mother or caregiver practice measuring a dose
- Ask the mother or caregiver to give the dose to the child
- Explain carefully how, and how often, to give the treatment at home
- Explain that all oral drug must be used to finish the course of treatment, even if the child gets better
- Check the caregiver's understanding.

Danger signs

Tell the caregiver about the four main danger signs viz **not able to feed** , **vomiting everything** , **convulsions** and **lethargy**
Teach the caregiver the following specific danger sings related to the child illness:

- Sunken eyes and blood in stools for diarrhea
- Fast breathing for cough& cold
- Difficult breathing for pneumonia
- Tender swelling behind the ear for ear infections

Future prevention

Whenever possible the caregiver should be educated about the cause of the child's illness and how the illness can be prevented in future in a manner she can understand it .The following are examples:

- Cough cold are caused through contact with other persons with influenza and can be prevented by avoiding such contacts
- Diarrhea is caused by infection and can be prevented by hand washing

Accident prevention

Children are prone to accidents in around home. Parents should be educated about accident prevention. The following safety measures should be recommended for all children.

- Keep medicines and other chemicals such as detergents out of reach of children
- Do not use beverage bottles for storing kerosene or petrol
- Keep electrical appliances and switches boards above the reach of children
- Avoid keeping poisonous indoor plants inside the house.

When to return

- Tell the caregiver when to come for a return visit as in the following table:

Any sick child - Not able to drink or breast feed - Becomes more sick or there is worsening Cough & cold - Fast breathing - Difficulty in breathing Diarrhea - Blood in stool - Drinking poorly - Sunken eyes	Return Immediately
- Pneumonia - Dysentery - Persistent diarrhea - Fever cause not known	2 days
- Feeding problem - Sore throat	5 days
- Low weight (PEM)	14 days

Section 4

CHILD HEALTH ROUTINES INCLUDING FEEDING & PSYCHOSOCIAL ASSESSMENT

Routine Checks

Head circumference (At 6 weeks, 5 months & 7 months)

Measure the head circumference with a metallic tape passing over the most prominent bony prominence on the forehead and on the occiput. Repeat measurement and record on the head circumference chart. If abnormal (outside the green zone) refer to a pediatrician for further assessment

Cardiac check : (At 6 weeks , 5 months)

Auscultate the pre- cardiac area for a cardiac murmur. If a significant murmur is heard refer to a pediatrician for confirmation

Hip Check (At 6 weeks, 5 months & 7 months)

Place the baby supine on a firm surface. Flex hips and knees at 90 degrees and abduct the thigh. A click is felt if the hip is dislocated. Repeat the procedure to confirm the finding. If test is positive refer to an orthopedic surgeon

Eye checks (At 6 weeks, 5 months & 11/2 years)

1. **Nystagmus** : Look for rapid involuntary movement of eye balls. Refer to an ophthalmologist if nystagmus is observed
2. **White pupils**: Observe for white color of the pupils. Refer to an ophthalmologist if white pupil is observed



3. **Squint**: Shine a pen torch light from 30 cms distance with the light beam pointing between the eyes bows . If squint is present corneal reflections are seen not in the centre in one or both eyes. Cover the affected eye and refer to an ophthalmologist as soon as possible



Feeding assessment. (To be done at (At 6 weeks, 5 months, 9 months & 18 months)

ASK about breast-feeding

Do you breast feed your child? How many times during day? How many times during night?

Assess the breast feeding technique) if the child has low weight or the mother complaints of feeding difficulty and the baby is under 6 months.

Check for correctness of position as follows:

1. Infant's neck straight or bent slightly backward 2. Infant's body close to mother's body 3. Infant's body turned towards mother's body 4. Infant's whole body supported

Check for correctness of attachment as follows:

1. Chin touching breast 2. Mouth wide-open 3. Lower lip turned outward 4. More areola seen above than below the infant's mouth

Check for effective suckling

Slow & deep; sometimes pausing

Teach mother to correctly attach as follows (If attachment is incorrect)

Touch infants lip with her nipple Wait until infant's mouth is wide open Move infant quickly onto her breast, aiming the infant's lower lip well below the nipple.

Ask about complementary feeding as below:

Ask the mother about what the child ate yesterday [if yesterday was unusual for the child, ask for the usual day]:

1. Did child receive breast milk yesterday? How many times during day? How many times during night?
2. Did the child take any other food or fluid yesterday?
3. Did the child eat 3 meals of thick consistency yesterday?
4. Did the child eat yesterday an animal food / and milk products / and pulses, nuts or seeds / and vegetable or fruit [dark green and orange] ?
5. Did the child eat sufficient number of meals and snacks yesterday for his/her age as per the table below?
6. Was quantity of food eaten at main meals yesterday appropriate for child's age as per the table below?
7. Do you encourage the child to feed by him/herself?
8. During illness, do you feed the child as usual, and try to give extra foods and fluids?

If the answers to all questions are YES, enter [✓] mark in the column opposite to the child age in the pink card

If the answers to any of questions are NO, give message/s appropriate and enter the code number of the corresponding **key message for child feeding on the child's pink card.**

Age	Texture (Food items)	Frequency	Amount at each meal
Upto 6 months	Exclusive breastfeeding as often as the child wants day and night	At least 8 times in 24 hours	
4-6 months	Exclusive breastfeeding: Complementary food only if the child: <ul style="list-style-type: none"> ▪ Appears hungry after breast feeds ▪ Is not gaining weight in 2 consecutive weeks 	If hungry 2 times after breast feeds	2-3 table spoons
From 6 months	Soft porridge, well mashed vegetables meat , fruit	2 times per day + frequent breast feeds	2-3 table spoons
7-8 months	Mashed foods	3 times per day plus frequent breast feeds	Increasing gradually to 2/3 of 250 ml cup at each meal
9 –11 months	Finely chopped or mashed foods and foods that baby can pick up	3 meals plus 1 snack between meals plus breast feeds	3/4 of 250 ml cup or bowl at each meal
12-24 months	Family foods chopped or mashed if necessary	3 meals plus 2 snacks between meals plus breast feeds	A full 250 cup or bowl

Psychosocial assessment (At 6 weeks, 5 months, 9 months & 18 months)

Ask / Observe:

Is the child able to do the motor activity appropriate for the age (as in the table)

Is the child able to communicate appropriate for the age (as in the table)

Is the child able to play appropriate for the age (as in the table).

If normal praise the care giver. If doubtful review in 2 weeks. If abnormal refer to pediatrician for full assessment

AGE	MOTOR	COMMUNICATION	PLAY
6 weeks	-	Cries normal cry, coos	<ul style="list-style-type: none"> ▪ Looks at mother 's face and smiles ▪ Looks at dangling toy ▪ Grasps objects
5 months	Holds head Raises chin	Laughs and squeals	<ul style="list-style-type: none"> ▪ Turn s head to noises ▪ Puts objects in the mouth ▪ Follows dangling objects 180 degrees and vertically
7 months	Sits with or without support	Single syllable such as "ga" "ba" ka	<ul style="list-style-type: none"> ▪ Reaches for objects with one hand ▪ Splashes in water ▪ Transfer objects from hand-to-hand
9- months	Stands with support	Long sting of syllables such as "Dada" "mama" 'kaka'	<ul style="list-style-type: none"> ▪ Does Bye – bye ▪ Bangs objects to make sound ▪ Stranger anxiety
12 months	Stands without support, begins to take steps.	Says 'dada' , 'mama' for parents	<ul style="list-style-type: none"> ▪ Picks up small objects with thumb and index finger ▪ Picks and drops objects
15- months	Walks without support	Speaks words with names of objects	<ul style="list-style-type: none"> ▪ Plays hide & seek game ▪ Assists in dressing ▪ Puts objects in out of a container
18 months	Climbs up stairs holding	Uses 6- 20 recognizable words	<ul style="list-style-type: none"> ▪ Stack ups things ▪ Name parts of body ▪ Copies mother's domestic work
2 years	Climbs up stairs without holding	Speaks in 2 word sentences	<ul style="list-style-type: none"> ▪ Obeys simple commands ▪ Puts on shoes, socks, pants ▪ Turns page of book

Entries to be made in child's pink card . Make play recommendation appropriate for the child's age as below :

Psychosocial stimulation (Recommendations upto 2 years)

Upto 4 months

Play

1. Keep child close to face and tap on the chin
2. Dangle bright colored objects in front of baby's eyes
3. Makes noises with rattles and rings



► Communicate

Look into your child's eyes and smile at him or her.

5 months

► Play:

1. Move bright colored objects in front of baby's eyes horizontally (180 degrees) and vertically
2. Offer objects in hand to grasp



► Communicate:

Talk to your child and get a conversation going with sounds or gestures

7 months

► Play

1. Give your child clean, safe household things to handle, bang and make noise
2. Let the child play splashing water while giving bath



► Communicate:

Talk to your child and get a conversation going with sounds such as dadada mamada kakaka

9- 11 months

► Play

1. Give your child clean, safe household things to handle, bang and drop.
2. Put small object in front and let the baby pick them up



► Communicate:

1. Tell child 'dada' & 'mama' for parents
2. Tell the child "bye. – Bye waiving

12 –17 months

Play:

1. Give your child things to stack up
2. Let child put into objects in and out of container
3. Let the child copy mother in house work like dusting



► Communicate

1. Tell the child about parts of body
2. Let the child play with doll. Let the child identify his body parts and body parts of doll
3. Name objects and people

18-24 months

Play

1. Let the child sit on your lap and let him turn pages of picture book. You name the objects in the picture and let the child repeat
2. Let the child put on shoes socks pants
3. Throw things on the stair and let child go upstairs and pick them



► Communicate:

Ask your child simple questions. Respond to your child's attempts to talk to you.

1. Encourage your child to talk and answer questions
2. Give simple commands and let the child obey them

Section 5

**FOLLOW UP CARE OF CHILDREN
(2 MONTHS UPTO 5 YEARS)**

GIVE FOLLOW UP CARE

Care for the child who returns for follow-up using the boxes that match the child's previous classification
If the child has any new problem assess, classify and treat the new problem as on the **ASSESS AND CLASSIFY CHART**. Please note that there is no definite follow up recommended for children with cough cold and diarrhea. However the care-giver should be told about danger signs.

Feeding problem

After 5

- Reassess feeding
- Ask about any feeding problem detected on the initial visit
- Counsel the care-giver about new feeding problems if any
- Review again after 14 days

PEM

After 14 days

- Weigh child and see if there is improvement
- Reassess feeding
- Counsel on feeding problems identified earlier
- Counsel on feeding problems newly identified
- If no improvement or worsened refer to pediatrician
- Review after 14 days again and thereafter every month till child's weight is normal for 3 consecutive months.

Anemia

After 14 days

- Reassess
- Repeat Hb

If due to nutritional anemia

- If improved, continue oral iron for 3 months after Hb returns to normal value
- Review every month for 3 months
- If there is no improvement or if there is worsening check compliance to iron therapy
- Refer to pediatrician as necessary for further investigation as necessary

If due to sickle cell disease anemia

After 5 days

- Ask about pain relief
- If improved, counsel care-giver about folic acid treatment and oral penicillin prophylaxis
- Review every 3 months

Pneumonia

After 2 days

Ask

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

Reassess the child

Look for danger signs

- If child is breathing slower and eating better , praise care-giver continue antibiotics for 3 days more
- If breathing rate is same or temperature persists change antibiotic to second line and review after 2 days
- Child is worse with rapid breathing or chest in-drawing , admit/refer

GIVE FOLLOW UP CARE (CONTINUED)

Ear infection

After 2 days

Reassess for the ear problem

Measure temperature

If no pain or ear discharge praise care-giver and continue antibiotics for 3 days more

If there is swelling behind the ear or tenderness over mastoid with temperature above 38.5 C refer urgently to hospital

- If pain or ear discharge is present, change to a second line antibiotic such as Augmentin and review after 5 days again
- If no improvement after 5 days refer to ENT specialist

Sore throat

After 5 days

- Ask if the fever is less
- Reassess child
- Check for other problems
- Continue treatment for 10 days if response is good
- If no response change to second line antibiotic such as cephadrine

Dysentery

After 2 days

Ask

- Is the frequency of stools less ?
- Is the fever less ?
- Is the child eating better?
- Is there blood in stools?
- Is the abdominal pain less?

Reassess the child

- Look for danger signs
- If child is having fewer stools and eating better, praise care-giver, continue antibiotics for 5 days more
- Refer to hospital if:
 - The number of stools are same or more or
 - Blood in the stool persists or
 - Abdominal cramps persists

Persistent diarrhea

After 5 days

Ask

- Has the diarrhea stopped?
- How many loose stools the child is having each day

Treatment

- if diarrhea has NOT stopped (more than 3 loose stools per day: Refer to hospital
- If diarrhea has stopped (3 or less than 3 loose stools per day : Tell the care-giver to follow feeding recommendation for the child's age

Febrile Illness (Fever cause not known)

If fever persists after 2 days

- Do a full reassessment of the child
- Assess for other causes of fever
- Do urine microscopy and CBC if not done
- If child has danger signs or neck stiffness, admit or refer
- If cause of fever still remains unknown refer to pediatrician for a consultation

Section 7

**ASSESSMENT, CLASSIFICATION, TREATMENT
SICK YOUNG INFANTS (1WEEK UPTO 2 MONTHS)**

Assessment young infant up to 2 months of age

Record temperature, weight and date of visit , Check RR in minute , Ask and record the main complaints
Check for General Danger Signs as follows:

CHECK FOR GENERAL DANGER SIGNS

1. Chest in- drawing
2. Not able to drink
- 3 Persistent-vomiting
4. . Lethargy
- 5 Convulsions now or recently

EXAMINE FOR SIGNS OF SEVERE INFECTION

1. Bulging fontanel
2. Pus discharging from ear
- 3 Purulent eye discharge
4. Nasal flaring/ grunting
5. Redness around umbilicus
6. Multiple pustules
7. Hypotonic

EXAMINE FOR SIGNS OF MINOR INFECTIONS

1. Coryza
2. Mild eye discharge
3. Redness of umbilicus
- 4 Few skin pustules

If the child's vital are OK and has no general Danger signs or signs or sign of severe infection proceed as follows

- ⇒ Ask for the baby's health card (pink card) & check for immunization
- ⇒ Check the pink card to see if the child has any reasons for special care such as congenital anomalies , genetic blood disorders , hypothyroidism or any other chronic illness
- ⇒ Check baby's weight and enter on the card and plot the curve if not plotted in the current month
- ⇒ Assess the weight, if low weight do feeding assessment as in Section 4

If the infant has any of the following 1) Takes less than 8 feeds in a 24 hours 2) Receives other food or drinks 3) Poor position 4) Poor attachment 5 Ineffective sucking, infant should be considered as having a feeding problem and should be counseled accordingly.

If the infant's vitals are NOT OK and has general Danger signs or signs of illness classify as and treat as follows:

SIGNS	CLASSIFY AS	IDENTIFY TREATMENT
<p>Any ONE of the following vitals Temperature above 37.9 or below 35.5 RR 60 per minute or above OR Any ONE of the general danger signs OR Any one of the following</p> <ul style="list-style-type: none"> ▪ Bulging fontanel ▪ Severe purulent eye discharge ▪ Pus discharging from ear ▪ Nasal flaire /grunting ▪ Redness around umbilicus extending to skin and tissue ▪ Multiple pustules ▪ Hypotonia 	Severe infection	<ul style="list-style-type: none"> ▪ Stabilize the child as necessary (ABC) ▪ Prevent low blood sugar ▪ Prevent hypothermia ▪ Give single dose s of penicillin & gentamycin IM ▪ Refer to hospital urgently
<p>Any ONE of the following</p> <ul style="list-style-type: none"> ▪ Redness of umbilicus ▪ A few skin pustules ▪ Minor purulent eye discharge 	Local infection	<ul style="list-style-type: none"> ▪ Give oral cloxacillin for 5 days ▪ Teach mother how to treat local infection at home ▪ Review in 2 days
<ul style="list-style-type: none"> ▪ Cough or cold ▪ RR less than 60 ▪ Temperature 37.9 of below ▪ No significant chest in- drawing or any other signs 	Coryza	Saline nasal drops

Assess the infant for jaundice

Jaundice extending to palm and soles	Significant jaundice	Increase breast feeding Refer to hospital urgently
--------------------------------------	-----------------------------	---

Assess and classify diarrhoea

Assessment & classification is similar to a child of 2 months up to 5 years EXCEPT drinking eagerly is NOT used as sign in a young infant
If any **TWO** of the signs viz. lethargy or unconsciousness, sunken eyes, skin pinch goes **very** slowly are present the infant is classified as having SEVERE DEHYDRATION.

If any **TWO** of signs viz irritability, sunken eyes, skin pinch goes slowly are present the infant is classified as having MILD TO MODERATE DEHYDRATION.



ANNEXURE

Annexure 1: Accidents and Injuries

INJURIES	
Signs of severe injuries	Treatment
<ul style="list-style-type: none"> ▪ General danger signs OR ▪ Severe bleeding OR ▪ Inability to move limbs OR ▪ Pallor OR ▪ Abdominal guarding 	<ul style="list-style-type: none"> ▪ If bleeding is present, apply sterile gauze and press for 5 minutes to control bleeding ▪ Immobilize the affect part by splinting ▪ Refer to hospital urgently
Signs of moderate injuries	Treatment
Any ONE of the following <ul style="list-style-type: none"> ▪ Wounds with signs of local inflammation ▪ Deep and contaminated wound ▪ Wounds with pus formation 	<ul style="list-style-type: none"> ▪ Wash the wound well with saline ▪ Carefully remove all bits of dirt, blood clots, dead or badly damaged tissue (in contaminated wounds) ▪ Treat with an appropriate antibiotic such as Cloxacilin or Amoxicilin if wound is infected or contaminated ▪ Dress the wound daily until healed. ▪ Tell caregiver when to return
Signs of mild injuries	Treatment
<ul style="list-style-type: none"> ▪ No bleeding or minor bleeding 	<ul style="list-style-type: none"> ▪ Examine the wound daily and check for signs of infection ▪ If the dressing gets wet, remove it and apply a new one. Continue dressing till the wound forms a scab ▪ Tell caregiver when to return
BURNS	
Signs of severe burns	Treatment
<ul style="list-style-type: none"> ▪ Danger signs OR any one of the following ▪ Large area affected with partial thickness (15 % or above) ▪ Full thickness burn ▪ Affected underlying structures and tissues ▪ Burns around face, ears, hands, feet and genitalia ▪ Electric burns 	<ul style="list-style-type: none"> ▪ Stabilize the child as necessary ▪ Do not break blisters ▪ Cover the burnt area with sterile gauze ▪ Refer to hospital urgently.
Signs of moderate burns	Treatment
<ul style="list-style-type: none"> ▪ Partial thickness with less than 15 % area affected AND ▪ No damage to deeper layers of skin 	<ul style="list-style-type: none"> ▪ Do not puncture blisters ▪ Keep the burnt area clean and dry and protect it with a loose bandage. ▪ Apply antiseptic cream such as silver sulfadiazine ▪ Give paracetamol for pain ▪ Follow up 2 days
Signs of mild burns	Treatment
<ul style="list-style-type: none"> ▪ Superficial (No blisters) 	<ul style="list-style-type: none"> ▪ Clean the burn area with antiseptic ▪ Follow up 2 days

Annexure 1: Accidents and Injuries

Bites & stings	
Signs of snake bite with systemic² or local envenomation	TREATMENT
History of snake bite and any ONE of the following <ul style="list-style-type: none"> ▪ General danger signs ▪ Bleeding tendency ▪ Severe local pain ▪ Difficulty in swallowing or breathing ▪ Positive clot test ▪ Bites on head, neck & trunk ▪ Local pain & edema 	<ul style="list-style-type: none"> ▪ Reassure the parents. ▪ Immobilize the bitten limb with a splint (leg) or sling (arm) ▪ Do not apply a tourniquet ▪ Do not make incision over the bite” and do not suck with mouth ▪ Refer to hospital urgently
Signs of snake bite with NO envenomation	TREATMENT
History of snake bite for 6 or more hours AND none of the above signs	<ul style="list-style-type: none"> ▪ Reassure mother ▪ Observe /Review in 8-12 hours
Signs of serious stings	TREATMENT
<ul style="list-style-type: none"> ▪ General danger signs OR ▪ Signs of shock OR <ul style="list-style-type: none"> ▪ Stridor / breathing difficulty 	<ul style="list-style-type: none"> ▪ If the sting is still in place remove it. Apply a cold compress to reduce pain and swelling ▪ Observe for anaphylactic shock or signs of impending anaphylaxis such as generalized itching, heaviness of voice and edema of uvula and give the following immediately. <ul style="list-style-type: none"> ▪ Adrenaline 0.2 ml (1:1000) IM ▪ Inj Chlorpheniramine maleate IM /IV ▪ Hydrocortisone 50 –100 mg IM/IV ▪ Administer nebulised salbutamol if there is brochospasm. If no improvement refer to secondary care for hospitalization
Signs of non- serious stings	TREATMENT
Local reaction	<ul style="list-style-type: none"> ▪ Reassure mother ▪ Prescribe oral antihistamine syrup ▪ Give local anesthesia by infiltration at the site of sting if needed. ▪ Give paracetamol or ibuprofen syrup as necessary. ▪ Observe for 1 hour at the clinic

Note: Check TT status for all cases of burns & injuries

² Anti-snake venom may be administered if facilities are available at your facility. Follow the local guidelines provided by the regional authorities. For scorpion stings follow regional guidelines

Annexure 2: Poisonings

Kerosene	
Signs of severe poisoning	Treatment
<ul style="list-style-type: none"> ▪ Cough and difficult breathing after kerosine ingestion OR ▪ General danger signs 	<ul style="list-style-type: none"> ▪ <i>Stabilize child as necessary (ABC)</i> ▪ Do not induce vomiting or wash stomach ▪ Refer urgently to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of kerosene less than 6 hours and NO sings as above 	<ul style="list-style-type: none"> ▪ Do not induce vomiting or wash stomach ▪ Observe for 6 hours ▪ Tell mother to return if there is cough or difficulty breathing ▪ Review in 24 hours
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of kerosene more than 6 hours before AND ▪ NO signs as above 	Do not induce vomiting or wash stomach Tell mother to return if there is cough or difficulty breathing
Pesticide	
Signs of severe poisoning	Treatment
<ul style="list-style-type: none"> ▪ General danger signs ▪ Chlinergic symptoms ▪ Pinpoint pupils 	<ul style="list-style-type: none"> ▪ Stabilize as necessary (ABC) ▪ Give stomach wash ▪ Give activated charcoal ▪ Undress and clean the child's skin with water and soap if some of the insecticide has fallen onto his/her cloths or skin. ▪ Give Inj. atropineIV 0.02 mg/kg per dose diluted in 1- 2 ml of normal saline. ▪ Repeat the dose every 5- 10 minutes until bronchial secretions disappear ▪ Give rectal diazepam if child has seizures ▪ Refer to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion pesticides less than 6 hours AND none of the above signs 	<ul style="list-style-type: none"> ▪ Give stomach wash ▪ Give activated charcoal ▪ Observe for 6 hours and watch for danger signs
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion pesticides more than 6 hours AND ▪ None of the above signs 	Reassure Review in 24 hours

Annexure 2: Poisonings

Iron	
Signs of severe poisoning	Treatment
Any ONE of the following <ul style="list-style-type: none"> ▪ Ingestion of more than 50mg/kg of elemental iron ▪ General danger signs ▪ Bloody vomiting ▪ Signs of shock 	<ul style="list-style-type: none"> ▪ Stabilize as necessary (ABC) ▪ Give stomach wash ▪ Collect blood sample for serum Fe ▪ Start injection Dysferrioxamine I as infusion 15 mg/kg /per hour ▪ Refer urgently to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of more than 20- 50mg/kg of elemental iron OR ▪ Plain X-ray of abdomen shows specs of iron OR ▪ Symptoms of vomiting or diarrhea 	<ul style="list-style-type: none"> ▪ Give stomach wash if child brought within one hour ▪ Start injection Dysferal as infusion 15 mg/kg /per hour ▪ Observe for 4 hours at the clinic ▪ If urine is clear, review in 12 hours ▪ If urine is pink refer urgently
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of more than 20- 50mg/kg of elemental iron ▪ Plain X-ray of abdomen shows no specs of iron ▪ NO symptoms of vomiting or diarrhea. 	<ul style="list-style-type: none"> ▪ Give stomach wash if child brought within one hour
Paracetamol	
Signs of severe poisoning	Treatment
Any ONE of the following <ul style="list-style-type: none"> ▪ Ingestion of more than 140mg/kg of paracetamol ▪ General danger signs ▪ Signs of shock 	<ul style="list-style-type: none"> ▪ Stabilize as necessary (ABC) ▪ Give stomach wash ▪ Give activated charcoal ▪ Give start dose N- acetyl cysteine ▪ Refer urgently to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of more than 140g/kg of paracetamol ▪ Symptoms of vomiting ▪ No signs of shock 	<ul style="list-style-type: none"> ▪ Give stomach wash ▪ Give activated charcoal ▪ Take blood sample for acetaminophen ▪ Give N- acetyl cysteine 140mg /kg diluted in juice orally ▪ Observe/review in 4 hours ▪ Refer urgently to hospital if necessary
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of less than 140g/kg of paracetamol ▪ NO vomiting or other symptoms 	<ul style="list-style-type: none"> ▪ Stomach wash ▪ Activated charcoal ▪ Review in 12 –24 hours

Annexure 2: Poisonings

Aspirin	
Signs of severe poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion more than 300 mg/kg of aspirin OR ▪ General danger signs OR ▪ Difficult breathing OR ▪ Hyperhermia (temp of 42 C or above) 	<ul style="list-style-type: none"> ▪ Stabilize as necessary (ABC) ▪ Give Na bicarb 1 – 2 ml kg necessary ▪ Give stomach wash ▪ Give activated charcoal ▪ Refer urgently to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of 150 -300 mg/kg of aspirin OR ▪ Some symptoms AND no danger signs 	<ul style="list-style-type: none"> ▪ Induce vomiting if child brought within 1 hour , give stomach wash if child brought after 1 hour ▪ Give activated charcoal ▪ Observe for 6 hours at the clinic ▪ Refer if symptoms persist
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Mild Ingestion of less than 150 mg/kg of aspirin AND/OR ▪ No symptoms 	<ul style="list-style-type: none"> ▪ Induce vomiting if child brought within 1 hour
Ibuprofen	
Signs of severe poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of more than 200 mg/kg of ibuprofen AND ▪ General danger signs 	<ul style="list-style-type: none"> ▪ Stabilize as necessary (ABC) ▪ Give stomach wash ▪ Give activated charcoal ▪ Refer urgently to hospital
Signs of moderate poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of less than 200 mg/kg of ibuprofen ▪ Some symptoms AND ▪ No general danger signs 	<ul style="list-style-type: none"> ▪ Give stomach wash ▪ Give activated charcoal ▪ Observe in the clinic for 4 –6 hours ▪ If child symptoms persist refer urgently to hospital
Signs of mild poisoning	Treatment
<ul style="list-style-type: none"> ▪ Ingestion of less than 200 mg/kg of ibuprofen AND ▪ No signs or symptoms 	<ul style="list-style-type: none"> ▪ Stomach wash ▪ Activated charcoal ▪ Review in 12 –24 hours

Annexure 3. Common emergencies

	CONDITION	TREATMENT
1	Convulsion	<ul style="list-style-type: none"> ▪ Turn the child to his or her side to aid breathing during a convulsion ▪ Rest his or her head on a soft object and to clear the surrounding area of any dangerous objects. ▪ Do not force objects into the child's mouth during a convulsion. ▪ Stabilize the child (ABC). Try to get a venous access and do dextrostix ▪ Give I V diazepam 0.2 mg /per kg if IV access is possible and give 4 ml/kg of 10% dextrose if dextrostix shows low glucose (<2.6 mmol) ▪ If IV access is not possible in 10 minutes give rectal diazepam 0.5 mg /kg ▪ If the convulsion does not stop transfer the child to hospital after stabilizing
2	Swallowed foreign body	<ul style="list-style-type: none"> ▪ Check for signs of esophageal obstruction such as vomiting, dysphagia and drooling of saliva ▪ Check for impacted foreign body in the esophagus by taking a AP & lateral chest x-ray films ▪ Refer urgently if child has esophageal obstruction or if foreign body is seen in the esophagus ▪ If the object is below the esophagus and the object is not of high risk category, send the child home ▪ If the object is of high risk type (battery, sharp objects , long objects) refer urgently to hospital ▪ Ask parents to watch the stool daily for foreign body for the next 7 days. ▪ If foreign body is not passed in 7 day repeat x-ray and refer if necessary
3	Low blood sugar	<ul style="list-style-type: none"> ▪ Give 10 % dextrose or breast- milk substitutes 50 mls /kg by nasogastric tube ▪ Ask mother to give expressed milk or breast milk by cup ▪ If mother's milk is not available give 30-50 mls/kg of 10% dextrose or breast- milk substitutes by cup
4	Severe dehydration	<ul style="list-style-type: none"> ▪ Start IV fluid immediately and give Ringer lactate or Normal saline ▪ Give 30 mls per kg in 1/2 hour (If infants under 1 year in 1 hour ▪ Repeat the dose if the child is not improved ▪ Refer the child to hospital after stabilizing
5	Severe asthma	<ul style="list-style-type: none"> ▪ Stabilize ABC as necessary ▪ Give nebulized salbutamol and ipatropium with oxygen at the rate of 5-6 liters / minute ▪ Repeat 2 additional doses if necessary ▪ If no improvement give one dose of hydrocortisone and refer hospital
	Severe croup	<ul style="list-style-type: none"> • Rule out acute epiglottitis by looking for drooping of sliva and high fever • If epiglottitis is excluded proceed as follows • dminister single dose of dexamethasone (0.6 mg/kg) IM • Administer nebulised adrenaline (2.5 ml of 1:1000 solution in 2 ml of saline over 10 minutes by face mask with Oxygen flow of at least 6 litres /minute • If no response REFER

Annexure : 4 Emergency procedures

1. Percutaneous Transtracheal Ventilation (PTV)

Aim : To secure air way in emergencies

Steps

1. Hold the trachea in place with thumb and middle finger of the non –dominant hand
2. Feel from the tracheal rings and go upwards until cricoid cartilage if felt
3. Advance the canula (No.16 .or 18 on cricothyroid membrane just above the cricoid cartilage in a downward direction at an angle of 30-40 degrees
4. Attach a 5 ml syringe with 2 mls of saline to the canula & confirm position by air bubbles in the syringe
5. Remove the syringe and connect the ambu bag to IV canula (see below)
6. Confirm correct placement and begin bagging
7. Assess the patient response and secure with suture around catheter to prevent air leak and secure position of canula with adhesives
8. Ventilate at appropriate rate 20 per minute with the ambu bag.
9. Call for help or transfer urgently to a hospital

How to make connection for I V canula placed in the trachea to Ambu bag (see illustrations below)

1. Remove the distal rubber tubing with plastic end from any adult IV set
2. Connect the base of ET No.3.5 to Ambu bag
3. Connect the rubber end of IV tubing to nostril of the ET tube
4. Connect the oxygen supply to the Ambu bag
5. Connect the plastic end to the IV canula placed in the trachea

2. Intraosseous Infusion (I O)

Aim : To secure IV access for volume replacement in shock or when IV line is not easily accessible (after 3 trials in 90 seconds in emergencies)

Summary of Steps

1. Restrain the patient appropriately
2. Choose the site : Proximal tibia (upto 3 years) 1- 2 cm below the tibial tuberosity
3. Choose distal tibia for children above 3 years
4. Provide local anesthesia for awake patients
5. Insert needle perpendicular to bony cortex or slightly angled away from joint space
6. Use steady back and forth rotational movements rather than rocking needle from side to side
7. Aspirate marrow to confirm needle placement or infuse small amount of saline and aspirate looking for pink fluid
8. Attach IV infusion set and secure the line
9. Monitor for extravasation and swelling of tissues
10. Infuse Ringer lactate and give emergency medications as necessary until IV line is accessible



Annexure : 5 Illustrations

1. Percutaneous Transtracheal Ventilation (PTV)



a) Items required



b) Assembled set



c) Connected to baby

2. Diagram for calculation of area of burns

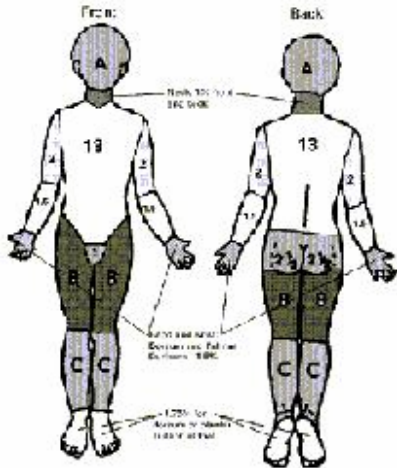
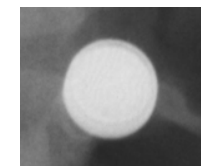


Diagram area	Age in years		
	0	1	5
A= ½ head	9.5	8.5	6.5
B= ½ of thigh	2.75	3.25	4
C= ½ of leg	2.5	2.5	2.75

* Use the table above for calculation of percentage of total body surface area in burns . Take only partial thickness and full

3. X-Ray pictures showing swallowed disc batteries. Notice the peripheral transparent ring characteristic of disc batteries



Annexure: 6 Emergency medications

Drug	Route	Method of preparation	Dosage
Diazepam	IV /Rectal		0.2mg /kg IV , 0.5 mg /kg rectal
Adrenaline 1:1000	SC/ IM/ Nebulised		0.01ML /Kg, SC/IM 2.5 ML OF 1.1000 SOLN + NS = 5ML [NEB. FOR CROUP]
Dexamethzone	IV/IM		0.6 mg /kg single dose
Hydrocortisone	IM/IV		5 mg/kg
Salbutamol Nebullised	Nebulized	Mix the dose in 3.5 ml of normal saline	200 mcg / kg/ given every 20 minutes Maximum 3 doses
Ipratropium bromide	Nebulized	Mix the dose in 3.5 ml of normal saline	0.25 mg / doses every 20 minutes Maximum 3 doses
Chlorpheniramine maleate	IV/IM		1-2 mg IV/IM or 0.1 MG/KG/ as stat dose

Pre-referral antibiotic

Drug	Route	Method of preparation	Dosage
Ampicillin	IV/IM		50 mg/kg as stat dose
Ceftriaxon (eg.Rocephin)	IV/IM		50 mg/kg as stat dose
Penicillin Benzyl	IV/IM		25000 IU /kg as stat dose
Gentamycin	IV/IM		2 mg/kg single dose as start dose

Drug for treating poisons at Clinic

Drug	Route	Method of preparation	Dosage
Activated charcoal	Oral	Mixed in glass of water and given by nasogastric tube after stomach aspiration	0.25 gm/ kg per dose
Atropine sulphate	IM		0.05mg/kg 1-2 doses
Ipecacuanha Emetic Mixture	Oral		10 –20 ml of 5% solution single dose
N- acetyl -Cysteine (Pavolex)	IV		150 mg /kg in 5% dextrose water to be given over 1 hour
Desferrioxamine (Desferal)	IM		50 mg /kg as start dose

Annexure : 7 Non-emergency medications

Drug	Dosage	Frequency	Duration
Amoxycillin	15/kg/dose	3 times a day	5 days
Cephradine (eg.Velosef)	10- 25 mg/kg/dose	3 times a day	5 days
Chloroquine	10 mg/kg as first dose, subsequent 3 doses 5mg/kg	First dose 10 mg /kg , second dose 5mg/kg after 6 hours , then 5mg/kg for 2 days	
Cloxacillin	15 –25 mg/kg/dose	3 times a day	
Cotrimoxazole (eg.Septrin)	5 mg/kg/ dose of Trimethoprim	2 times a day	5 days
Erythromycin	10 mg/kg/ dose	4 times daily	5 days
Penicillin V	7.5 –15 mg/kg	3 times a day	5 days
Nalidixic acid	15 mg/kg /per dose	3-4 times a day	5 days
Paracetamol syrup	15 mg/kg /dose	As necessary upto 4 times daily	
Metronidazol	10 mg/kg	3 times a day	7 days
Salbutamol syrup	1 mg /dose (age less than 1 yr) 2 mg/dose (age 1 yr or more)	3-4 times a day	As necessary
Salbutamol Inhaler	200 mcg	3- 4 times day	As necessary
Folic acid	0.01- .03 mg/ kg	Once daily	Long term
Iron Syrup	3-6 mg /kg of elemental iron	Once daily	3 months
Lavendazole	400 mg for children above 2 years 200 mg for children 1-2 years	Single dose Single dose	