IMNCI

Integrated Management of Neonatal & Childhood Illnesses

IMNCI: An Introduction

IMNCI *is an integrated approach to child health that focuses on the well-being of the whole child*

Aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age

- It Includes both preventive and curative elements that are implemented by families and communities as well as by health facilities
- The strategy includes three main components:

  -Improving case management skills of health-care staff

  -Improving overall health systems

  -Improving family and community health practice

Contd…….

- Almost 19,000 children under 5 yrs. of age, died everyday across the world, 50% of it occurs in India
- In India, there are nearly 16.55 lakhs child deaths during 2011 and we rank top amongst the countries with highest child mortality
  - Poor coverage of protective and preventive interventions lead to increased risk of pneumonia in children
  - About 37000 under five children are admitted in facilities annually with upper respiratory infections (HMIS)
  - About 21000 under five children are reported cases of pneumonia in a year (HMIS)
- Infections and LBW(up to 2 months)

Cough,

Diarrhea,

Jaundice

fever(2months up to 5 years)

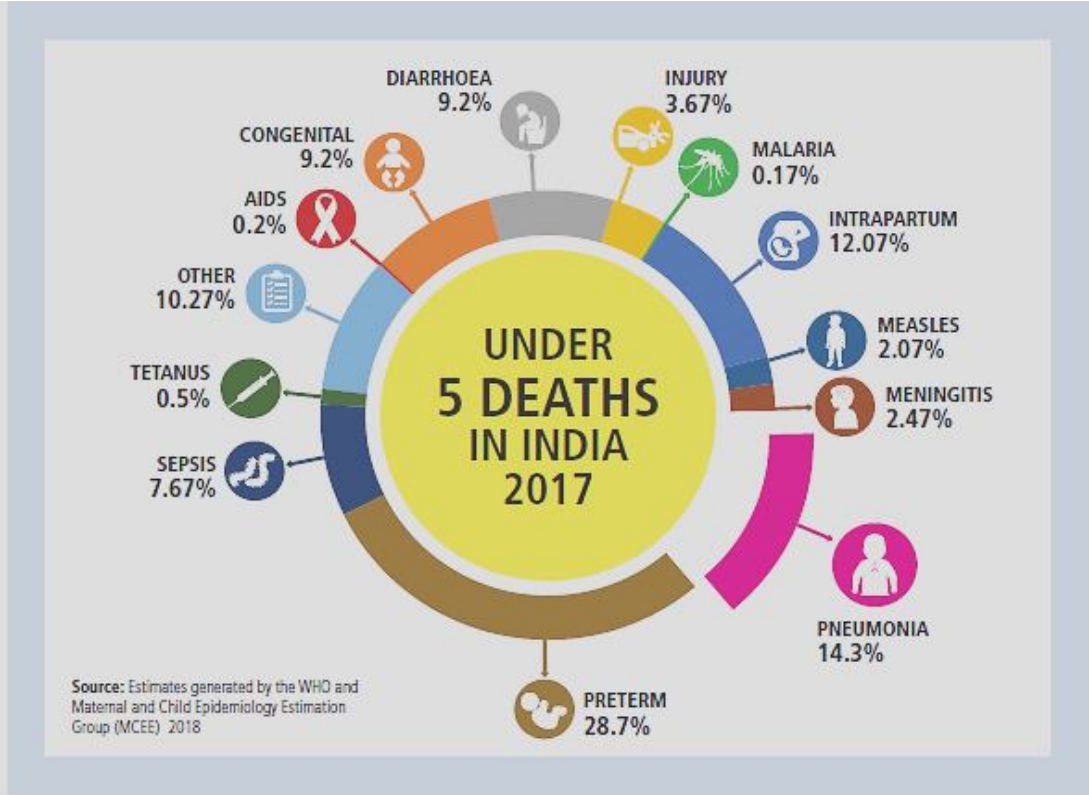
Child Health Indicators

Child Health Indicator	Current status in India	NHP Target
Neonatal Mortality rate	18 (SRS 2017)	16 by 2025
IMR (Infant Mortality Rate)	33 (SRS 2019)	28 by 2019
Under 5 Mortality Rate	37 (SRS 2017)	23 by 2025*

Pneumonia: A major U5 Killer!

Pneumonia killed
1,40,649
children under five in 2015– more than 16 children every hour

National Estimates



Only 18.3% children in the State with symptoms of ARI were given antibiotics (NFHS-4)

Target (IAPPD/ GAPPD)-Reduce pneumonia deaths to less than 3 per 1000 live births by 2025

8% of under-five deaths in Odisha are due to pneumonia, with wide inter-district variations, ranging from 1% to 34% (HMIS 2019-20)

While pneumonia kills about 14% of under five chidren in the country, only 8% of under-5 deaths in Odisha are due to Pneumonia-indicates under-reporting

Goal

- **Standardize case management of sick new born and children(0-5Yrs)**
- **Focus on the most common causes of mortality**
- **Nutrition assessment and counselling for all sick infants and children**
- **Home care for new born to**
  - **promote exclusive breastfeeding**
  - **prevent hypothermia**
  - **improve illness recognition & timely care seeking**

Pneumonia in Odisha : A Factsheet

Prevalence of Acute Respiratory Infections (ARI) in children under five years - 2.4% (National Average-2.7%) (NFHS-4)

Children under 5 years with symptoms of ARI taken to a health facility - 70.7% (National Average-78%) (NFHS-4)

Where do we stand?

- According to SRS 2018, the U5 mortality of India is 36 /1000 live births and that of Odisha is 44/1000 live births
- The National Health Policy (2017) aims to reduce U5 mortality to 23/1000 live births by 2025
- To achieve that the pneumonia mortality needs to reduce to less than 3 per 1000 live births
- This is also in tune with the goal of India Integrated Action Plan for Pneumonia & Diarrhoea (IAPPD)
- As per HMIS 2019-20 estimates, there are about 1.9 under five deaths due to pneumonia per 1000 live births in the State. **However, the cases of pneumonia may be under-reported/unidentified.**

Objectives

To BUILD CAPCITY OF HEALTH SERVICE PROVIDERS;- FOR

- Early referral of seriously ill children and young infants
- Provide home care to young infants
- Treating children with dehydration by ORS solution; and
- Treating children with pneumonia and young infants with local bacterial infection by cotrimoxazole
- Advising the mother on feeding infants and children, keeping young infants warm, giving fluids, relieving cough by home remedies, observing child for selected signs for follow-up and timely consultation

Expectations

After completion of this session you will be able to:

- Assess various signs and sickness in young infant and child
- Classify illness in a sick young infant and child based on signs and symptoms
- Identify treatment for various problems in young infant and child
- Treat young infant and child

Training Components

- Management of young infants age up to 2 months(0 to 59 days old)
- Management of sick children 2 months up to 5 years (2 to 59 months)

Training Methodology

- Reading out from the training module and understanding the management of sick young infants and children and home care
- Using the chart booklet to understand the assessment, classification and identification of treatment for sick young infants and children
- Recording the findings at the mother’s card
- Learning and identifying the key signs and symptoms by video demonstration and photographs

Strengths of IMNCI training

- **Evidence based decision making tree**
- **Feasible to incorporate into both pre-service education & in-service training**
- **Hands-on clinical practice for 50% of training time**
- **Focus on communication & counselling skills**
- **Locally adapted recommendations for infant and young child feeding**

Potentials of IMNCI

- **Accelerating the reduction in infant and child mortality in both rural and urban areas, particularly by its impact on neonatal mortality through home and facility based care**

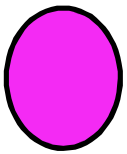
- **Lower burden on hospitals, particularly in urban areas where access to care is not a limiting factor**

Principles of Integrated Care

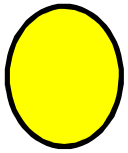
- All sick young infants up to 2 months of age must be assessed for "**possible bacterial infection / jaundice**".Then they must be routinely assessed for the major symptom "**diarrhea**"
- All sick children **age 2 months up to 5 years** must be examined for "**general danger signs"** which indicate the need **for immediate referral** or **admission to a hospital**. They must then be routinely assessed for major symptoms: **cough or difficult breathing, diarrhea, fever and ear problems**
- All sick young infants and children 2 months up to 5 years must also be routinely assessed for nutritional and immunization status, feeding problems, and other potential problems

Principles of Integrated Care

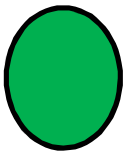
- A combination of individual signs leads to a child's classification(s) rather than diagnosis



Needs urgent hospital referral or admission (classifies as and color coded pink)



Needs specific medical intervention or advice (classified as and color coded yellow)



Can be managed at home (classified as and color coded green)

Elements of Case Management Process

- **Assess:** Child by checking for danger signs by history and examination
- **Classify :** Child's illness by color coded triage system
- **Identify:** Specific treatments
- **Treatments:** Instructions of oral drugs, feeding & fluids
- **Counsel:** Mother about breast feeding & about her own health as well as to follow further instructions on further child care
- **Follow up care:** Reassess the child for newer problems

Assess and Classify the Sick Young Infant Age up to 2 Months

CHECK FOR POSSIBLE BACTERIAL INFECTION / JAUNDICE

ASK:

- Has the infant had convulsions?

LOOK, LISTEN, FEEL:

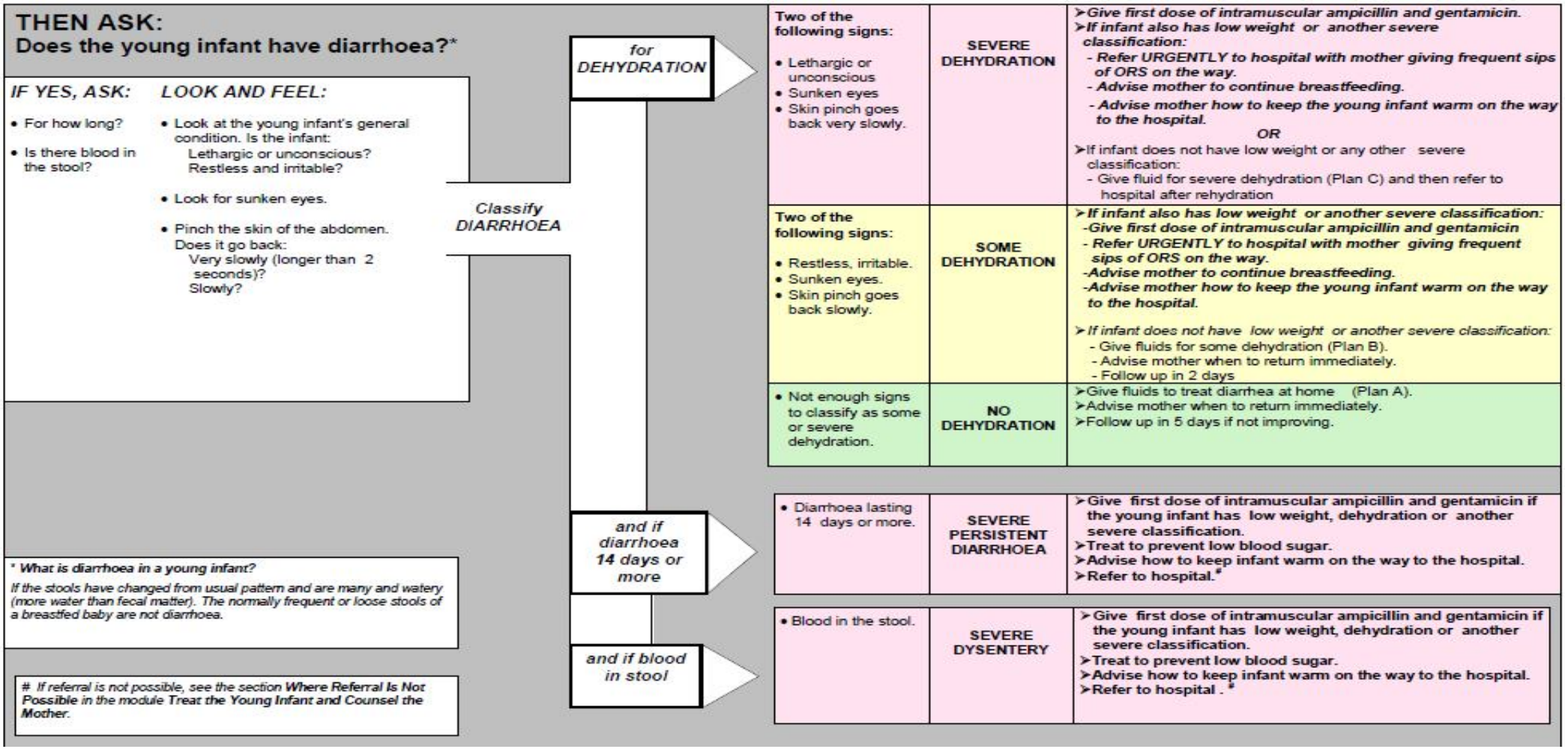
- Count the breaths in one minute. Repeat the count if elevated.
- Look for severe chest indrawing.
- Look for nasal flaring.
- Look and listen for grunting.
- Look and feel for bulging fontanelle.
- Look for pus draining from the ear.
- Look at the umbilicus. Is it red or draining pus?
- Look for skin pustules. Are there 10 or more skin pustules or a big boil?
- Measure axillary temperature (if not possible, feel for fever or low body temperature).
- See if the young infant is lethargic or unconscious.
- Look at the young infant's movements. Are they less than normal?
- Look for jaundice? Are the palms and soles yellow?

YOUNG INFANT MUST BE CALM

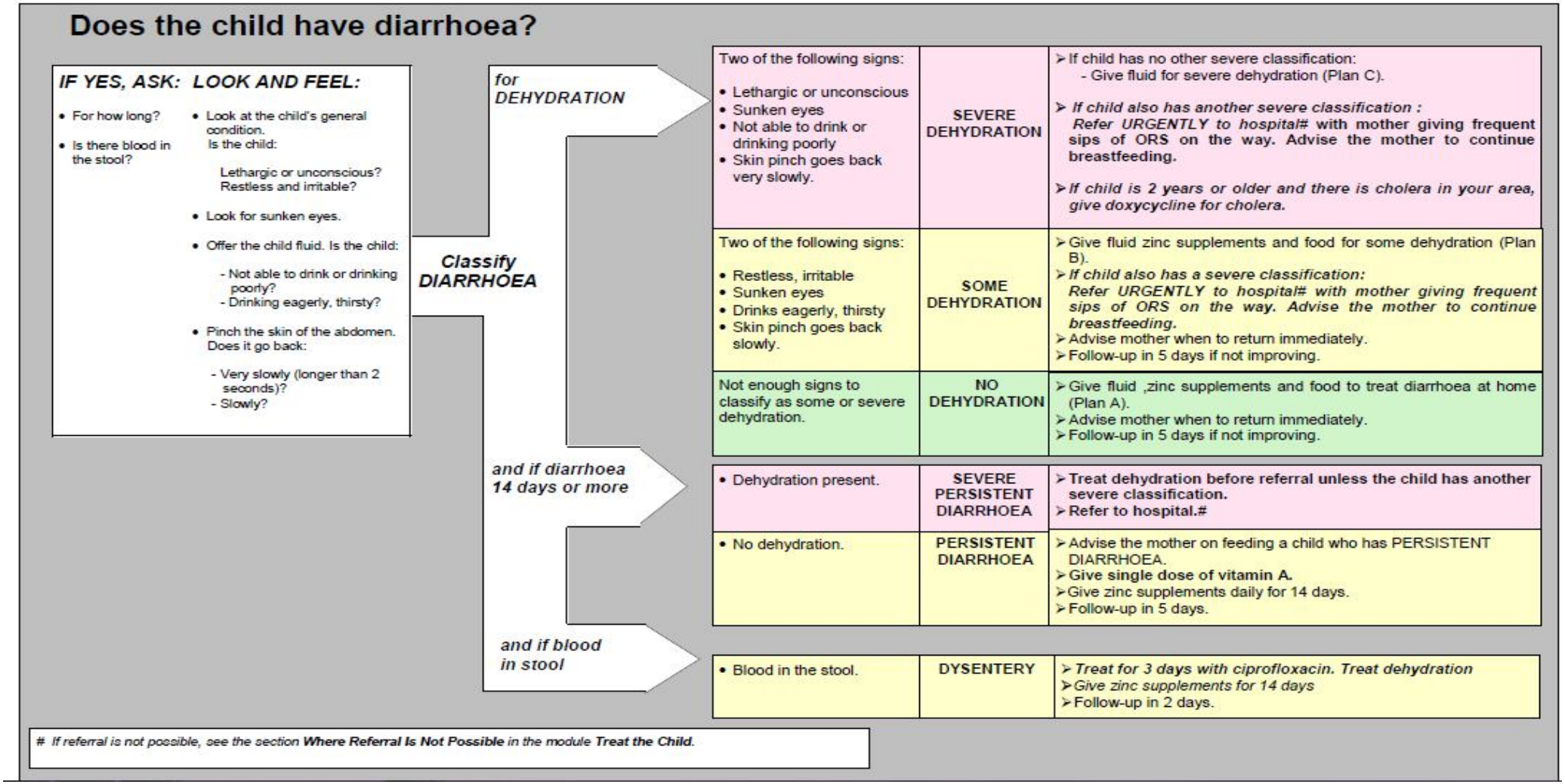
 # If referral is not possible, see the section Where Referral is Not Possible in the module Treat the Young Infant and Counsel the Mother.

	SIGNS	CLASSIFY AS	IDENTIFY TREATMENT (Urgent pre-referral treatments are in bold print.)
Classify ALL YOUNG INFANTS	• Convulsions or • Fast breathing (60 breaths per minute or more) or • Severe chest indrawing or • Nasal flaring or • Grunting or • Bulging fontanelle or • 10 or more skin pustules or a big boil or • If axillary temperature 37.5°C or above (or feels hot to touch) or temperature less than 35.5°C (or feels cold to touch) or • Lethargic or unconscious or • Less than normal movements.	POSSIBLE SERIOUS BACTERIAL INFECTION	➢ *Give first dose of intramuscular ampicillin and gentamicin.* ➢ *Treat to prevent low blood sugar.* ➢ *Warm the young infant by Skin to Skin contact if temperature less than 36.5°C (or feels cold to touch) while arranging referral.* ➢ *Advise mother how to keep the young infant warm on the way to the hospital.* ➢ *Refer URGENTLY to hospital#*
	• Umbilicus red or draining pus or • Pus discharge from ear or • <10 skin pustules.	LOCAL BACTERIAL INFECTION	➢ *Give oral amoxycillin for 5 days.* ➢ Teach mother to treat local infections at home. ➢ Follow up in 2 days.
And if the infant has jaundice	• Palms and soles yellow or • Age < 24 hours or • Age 14 days or more	SEVERE JAUNDICE	➢ *Treat to prevent low blood sugar.* ➢ *Warm the young infant by Skin to Skin contact if temperature less than 36.5°C (or feels cold to touch) while arranging referral.* ➢ *Advise mother how to keep the young infant warm on the way to the hospital.* ➢ *Refer URGENTLY to hospital*
	• Palms and soles not yellow	JAUNDICE	➢ Advise mother to give home care for the young infant. ➢ Advise mother when to return immediately. ➢ Follow up in 2 days.
And if the temp. is between 35.5– 36.4° C	•Temperature between 35.5 - 36.4°C	LOW BODY TEMPERATURE	➢ Warm the young infant using Skin to Skin contact for one hour and REASSESS. If no improvement, refer ➢ Treat to prevent low blood sugar.

Assess and Classify the Sick Young Infant Age up to 2 Months



Classification of Diarrhea



Assess Feeding Problems and Malnutrition

THEN CHECK FOR FEEDING PROBLEM & MALNUTRITION:

ASK:

- Is there any difficulty feeding?
- Is the infant breastfed? If yes, how many times in 24 hours?
- Does the infant usually receive any other foods or drinks? If yes, how often?
- What do you use to feed the infant?

LOOK, FEEL:

- Determine weight for age.

IF AN INFANT: **Has any difficulty feeding, or**
Is breastfeeding less than 8 times in 24 hours, or
Is taking any other foods or drinks, or
Is low weight for age,

AND

Has no indications to refer urgently to hospital:

ASSESS BREASTFEEDING:

- Has the infant breastfed in the previous hour?

If the infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breastfeed for 4 minutes.
(If the infant was fed during the last hour, ask the mother if she can wait and tell you when the infant is willing to feed again.)

- Is the infant able to attach?

no attachment at all *not well attached* *good attachment*

TO CHECK ATTACHMENT, LOOK FOR:

- *Chin touching breast*
- *Mouth wide open*
- *Lower lip turned outward*
- *More areola visible above than below the mouth*

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

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

not suckling at all *not suckling effectively* *suckling effectively*

Clear a blocked nose if it interferes with breastfeeding.

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

- Does the mother have pain while breastfeeding?

If yes, look and feel for:
- Flat or inverted nipples, or sore nipples
- Engorged breasts or breast abscess

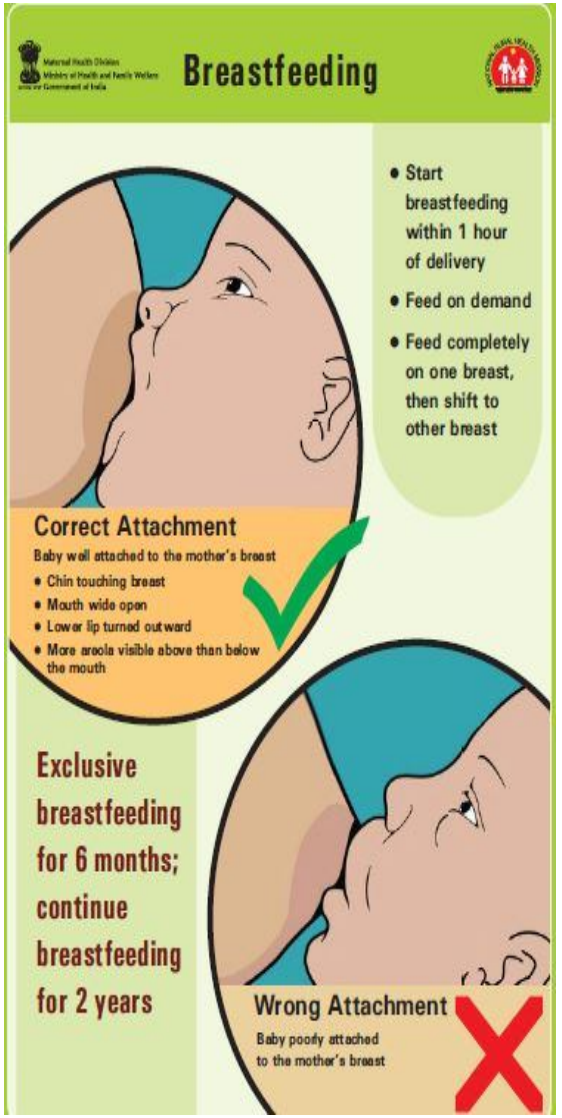
*# If referral is not possible, see the section **Where Referral is Not Possible** in the module **Treat the Young Infant and Counsel the Mother**.*

Classify FEEDING

• Not able to feed or • No attachment at all or • Not suckling at all or • Severely Underweight (<-3 S.D).	**NOT ABLE TO FEED - POSSIBLE SERIOUS BACTERIAL INFECTION OR SEVERE MALNUTRITION**	➢ *Give first dose of intramuscular ampicillin and gentamicin.* ➢ *Treat to prevent low blood sugar.* ➢ *Warm the young infant by Skin to Skin contact if temperature less than 36.5°C (or feels cold to touch) while arranging referral.* ➢ *Advise mother how to keep the young infant warm on the way to the hospital.* ➢ *Refer URGENTLY to hospital#*
• Not well attached to breast or • Not suckling effectively or • Less than 8 breastfeeds in 24 hours or • Receives other foods or drinks or • Thrush (ulcers or white patches in mouth) or • Moderately Underweight (<-2 to -3 S.D). or • Breast or nipple problems	**FEEDING PROBLEM OR LOW WEIGHT FOR AGE**	➢ If not well attached or not suckling effectively, teach correct positioning and attachment. ➢ If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding. ➢ If receiving other foods or drinks, counsel mother about breastfeeding more, reducing other foods or drinks, and using a cup and spoon. • If not breastfeeding at all, advise mother about giving locally appropriate animal milk and teach the mother to feed with a cup and spoon. ➢ If thrush, teach the mother to treat thrush at home. ➢ If low weight for age, teach the mother how to keep the young infant with low weight warm at home. ➢ If breast or nipple problem, teach the mother to treat breast or nipple problems. ➢ Advise mother to give home care for the young infant. ➢ Advise mother when to return immediately. ➢ Follow-up any feeding problem or thrush in 2 days. ➢ Follow-up low weight for age in 14 days.
• Not low weight for age (≥ -2SD) and no other signs of inadequate feeding.	**NO FEEDING PROBLEM**	➢ Advise mother to give home care for the young infant. ➢ Advise mother when to return immediately. ➢ Praise the mother for feeding the infant well.

Assess Feeding Problems and Malnutrition

- **Breast Feeding : Signs of good attachment**
  - Chin touching breast
  - Mouth wide open
  - Lower lip turned outward
  - More areola visible above than below the mouth



Poor Attachment

Treat the Sick Young Infant

- Give one or more of the following treatments before the young infant is sent to the hospital:
  - Antibiotics
  - Breast milk or sugar water
  - Warm the sick young infant with low body temperature by skin to skin contact and keep the young infant warm on the way to the hospital

Treat the Young Infant and Counsel the Mother

Child needs referral (Inpatient care)

- Give first dose of IM antibiotics
- Treat to prevent low blood sugar
- Provide KMC and assess the baby after one hour
- Refer keeping the baby warm

Child needs specific treatment, provide it at home

(e.g. Antibiotics, ORS)

- Teach the mother
  - to give oral drugs at home
  - to treat Local infections like – skin pustules or umbilical infection; dry ear by wicking; treat diarrhea
  - Feeding Problems – correct positioning and attachment; feeding with a cup and spoon; Treat Oral Thrush, breast or nipple problems
  - Keep young infants warm
  - Immunization

Child needs no medicine, give home care

- Home Care regarding feeds, fluids and warmth
- Advise mother about the warning signs and when to return to health worker
- Counsel the mother about her own health

Follow Up Care

GIVE FOLLOW-UP CARE FOR THE SICK YOUNG INFANT

➢ LOCAL BACTERIAL INFECTION

After 2 days:
➢Look at the umbilicus. Is it red or draining pus?

➢Look for skin pustules. Are there > 10 pustules or a big boil?

➢Look at the ear. Is it still discharging pus?

Treatment:
➢If ***umbilical redness or pus remains or is worse***, refer to hospital.

➢If ***umbilical pus and redness are improved***, tell the mother to continue giving the 5 days of antibiotic and continue treating the local infection at home.

➢If **>10 skin pustules or a big boil**, refer to hospital.

➢**If < 10 skin pustules and no big boil**, tell the mother to continue giving 5 days of antibiotic and continue treating the local infection at home.

➢If ***ear discharge*** persists, continue wicking to dry the ear. Continue to give antibiotic to complete 5 days of treatment even if ear discharge has stopped.

➢ LOW WEIGHT

After 14 days:
Weigh the young infant and determine if the infant is still low weight for age.
Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.
➢If the infant is ***no longer low weight for age***, praise the mother and encourage her to continue.
➢If the infant is ***still low weight for age, but is feeding well***, praise the mother. Ask her to have her infant weighed again within a month or when she returns for immunization.
➢If the infant is ***still low weight for age and still has a feeding problem***, counsel the mother about the feeding problem. Ask the mother to return again in 2 days.
Exception:
If you do not think that feeding will improve, or if the young infant has ***lost weight***, refer to hospital.

➢ JAUNDICE

After 2 days:
Look for jaundice
- Are the palms and soles yellow?

➢ If palms and soles are yellow or age 14 days or more refer to hospital
➢ If palms and soles are not yellow and age less than 14 days, advise home care and when to return immediately

➢ DIARRHOEA

After 2 days:
Ask:
- Has the diarrhoea stopped?

➢ If diarrhoea persists, Assess the young infant for diarrhoea (> *See ASSESS & CLASSIFY chart)* and manage as per initial visit .
➢ If diarrhoea stopped—reinforce exclusive breastfeeding

➢ FEEDING PROBLEM

After 2 days:
Reassess feeding. > See "Then Check for Feeding Problem or Low Weight" above.
Ask about any feeding problems found on the initial visit.

➢Counsel the mother about any new or continuing feeding problems. If you counsel the mother to make significant changes in feeding, ask her to bring the young infant back again in 2 days.

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

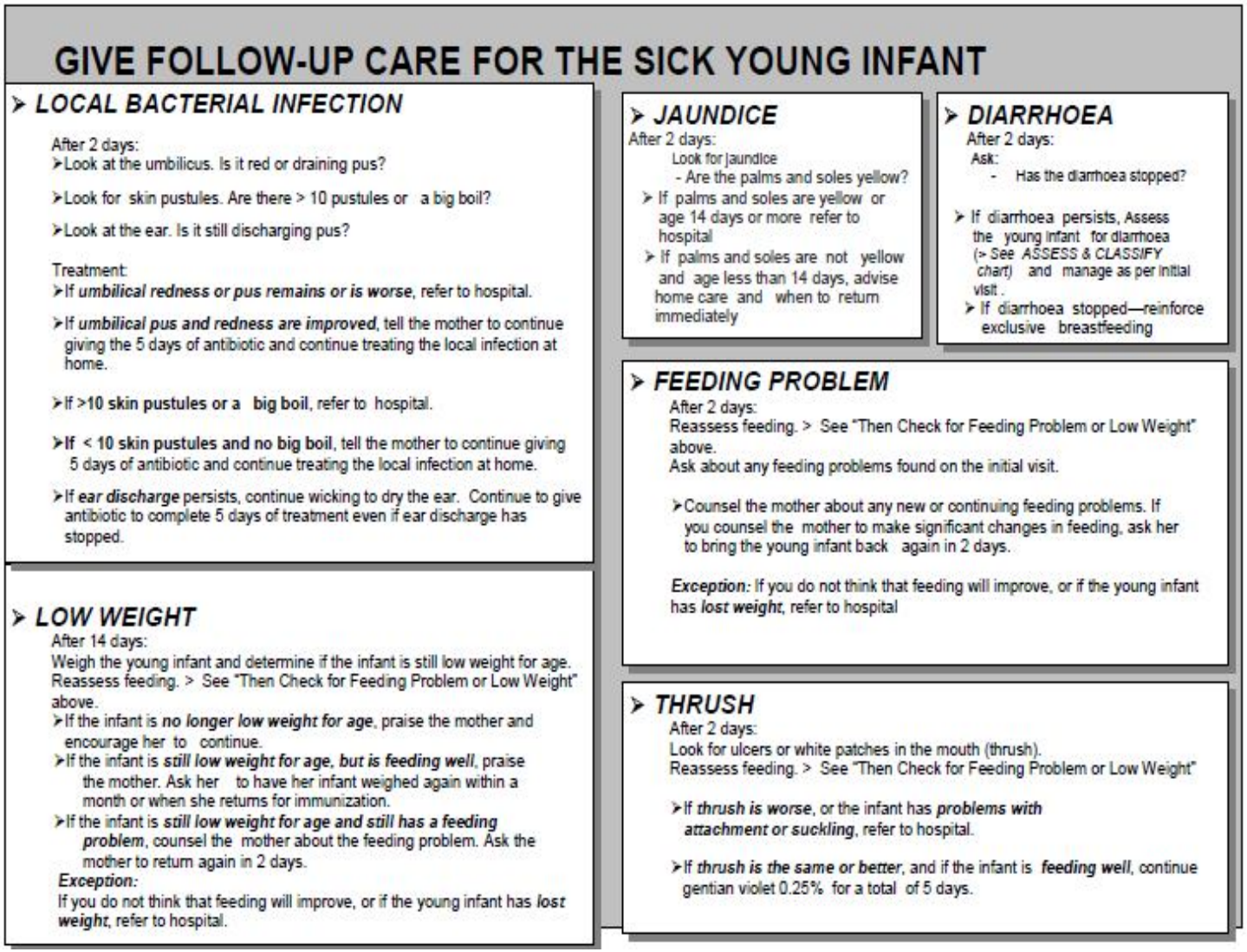
➢ THRUSH

After 2 days:
Look for ulcers or white patches in the mouth (thrush).
Reassess feeding. > See "Then Check for Feeding Problem or Low Weight"

➢If ***thrush is worse***, or the infant has ***problems with attachment or suckling***, refer to hospital.

➢If ***thrush is the same or better***, and if the infant is ***feeding well***, continue gentian violet 0.25% for a total of 5 days.

Follow Up Care



Assess and Classify Sick Child: Age 2 months up to 5 years

- **Assess General Danger Signs**
  - Assess all sick children for general danger signs
  - Danger signs indicate serious illness
  - General danger signs are:
    - the child is not able to drink or breastfeed
    - the child vomits everything
    - the child has had convulsions
    - the child is lethargic or unconscious

Assess and Classify Cough or Difficult Breathing

CHECK FOR GENERAL DANGER SIGNS

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

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

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

THEN ASK ABOUT MAIN SYMPTOMS:

Does the child have cough or difficult breathing?

IF YES, ASK:	*LOOK, LISTEN:*
• For how long?	• Count the breaths in one minute. • Look for chest indrawing. • Look and listen for stridor.

} CHILD MUST BE CALM

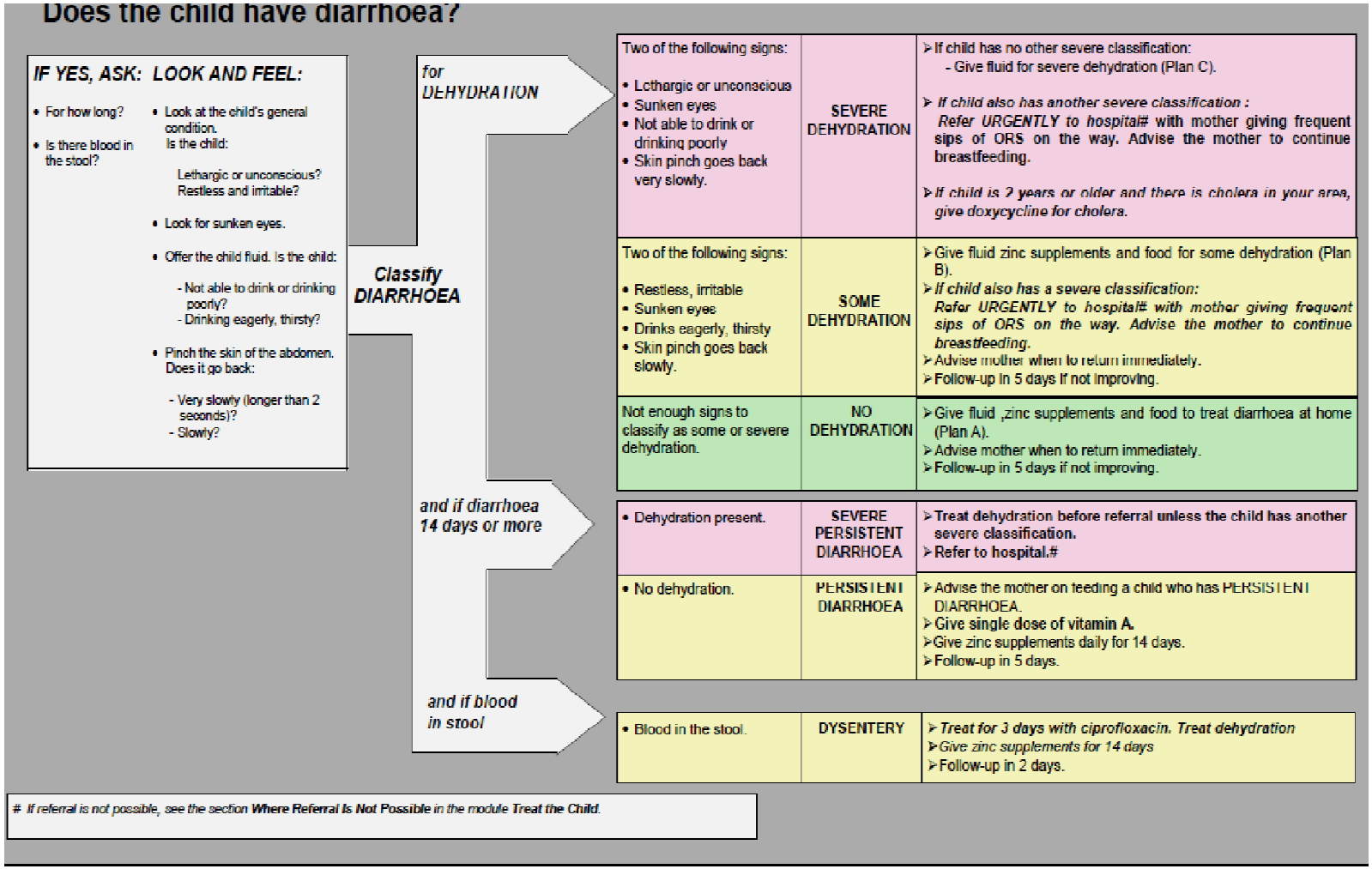
Classify COUGH or DIFFICULT BREATHING

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

SIGNS	CLASSIFY AS	IDENTIFY TREATMENT (Urgent pre-referral treatments are in bold print.)
• Any general danger sign or • Chest indrawing or • Stridor in calm child.	SEVERE PNEUMONIA OR VERY SEVERE DISEASE	➢ ***Give first dose of injectable chloramphenicol (If not possible give oral amoxycillin).*** ➢ ***Refer URGENTLY to hospital.#***
• Fast breathing.	PNEUMONIA	➢ ***Give Amoxycillin for 5 days.*** ➢ Soothe the throat and relieve the cough with a safe remedy if child is 6 months or older. ➢ Advise mother when to return immediately. ➢ Follow-up in 2 days.
No signs of pneumonia or very severe disease.	NO PNEUMONIA: COUGH OR COLD	➢ If coughing more than 30 days, refer for assessment. ➢ Soothe the throat and relieve the cough with a safe home remedy if child is 6 months or older. ➢ Advise mother when to return immediately. ➢ Follow-up in 5 days if not improving.

 # If referral is not possible, see the section Where Referral Is Not Possible in the module Treat the Child.

Assess and Classify Diarrhea

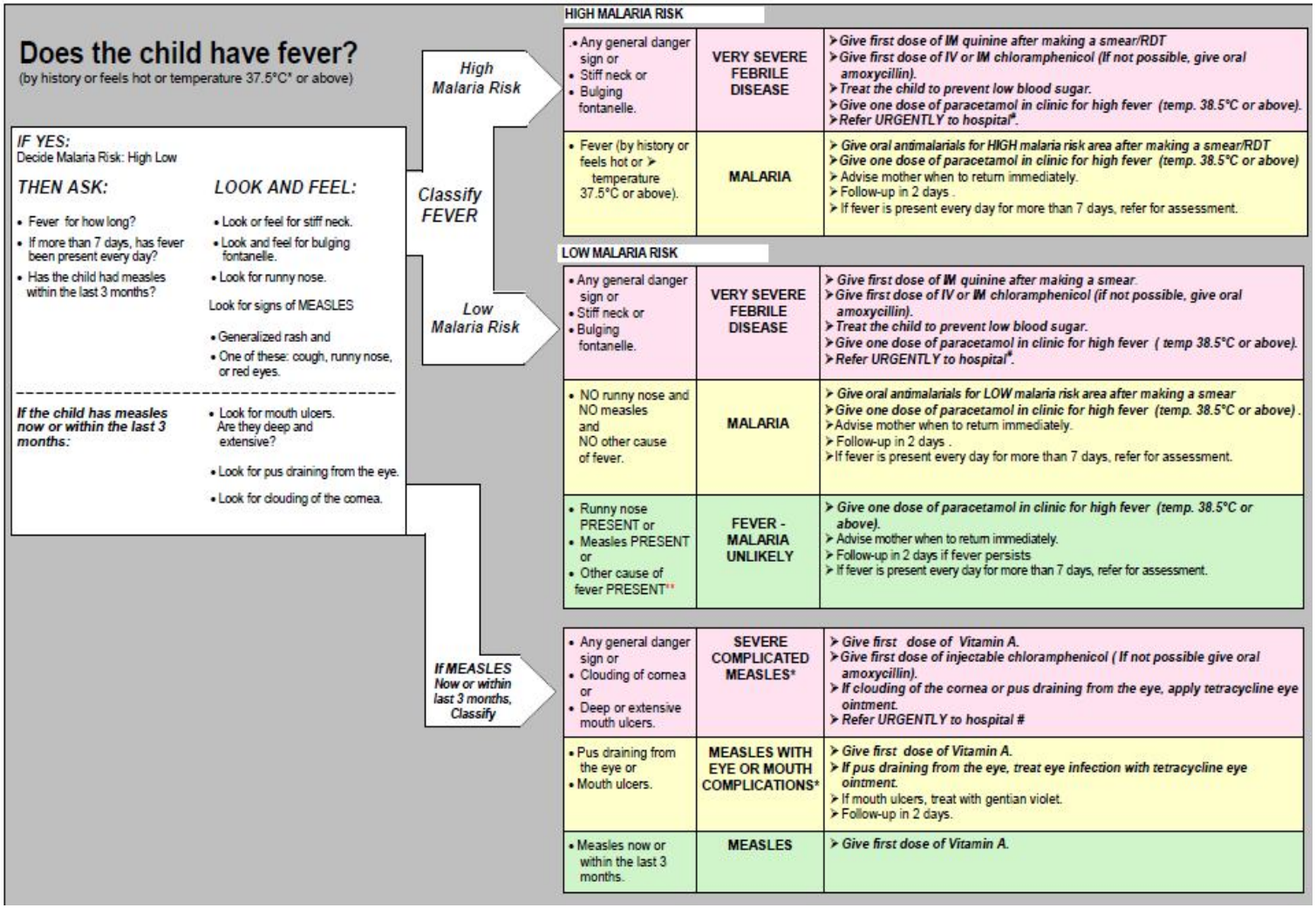


Assess and Classify Diarrhea

Remember

- Classify all cases of diarrhea for dehydration. In addition also classify as severe persistent diarrhea if duration is 14 days or more and dysentry if there is blood in stool
- Children with signs of severe dehydration should be referred to hospital
- Children with severe persistent diarrhea should be referred to hospital
- Children with dysentery should be treated with medicine at home
- Children with some dehydration should be re-dehydrated with ORS
- Children who are not dehydrated and have diarrhea of less than 14 days duration should be managed at home

Assess and Classify Fever



Assess and Classify Fever

Remember:

- The child does not have history of fever, does not feel hot or temperature is less than 37.5ºC. Do not assess the child further for signs related to fever. Ask about the next main symptom i.e. malnutrition
- Most of the fever due to viral illnesses go away within a few days
- A fever, which has been present, every day for more than 7 days can mean that the child has a more severe disease such as typhoid fever. Refer this child for further assessment

Assess and Classify Ear Problem

- **Assess Ear Problems**
  - Assess sick child for ear problem
  - A sick child can have ear pain due to which child may cry or become irritable. He may rub his ear frequently
- **Look and Feel**
  - Look and feel for tender swelling behind the ear. Both tenderness and swelling can be felt behind the ear
- **Ear Discharge**
  - When a mother reports that child has ear pain, health worker should check ear for any pus discharge

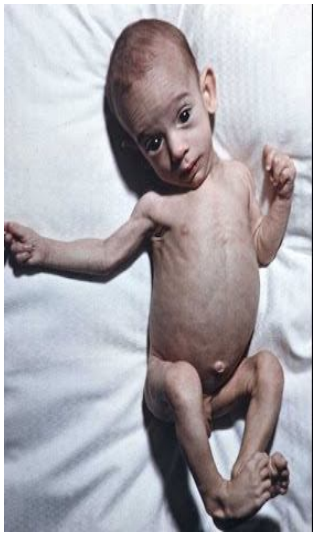
Assess and Classify Ear Problem

Classify Ear Problems

• Tender swelling behind the ear.	**MASTOIDITIS**	➢ ***Give first dose of injectable. chloramphenicol (If not possible give oral amoxycillin).*** ➢ ***Give first dose of paracetamol for pain.*** ➢ ***Refer URGENTLY to hospital#.***
• Pus is seen draining from the ear and discharge is reported for less than 14 days, or • Ear pain.	**ACUTE EAR INFECTION**	➢ ***Give Amoxycillin for 5 days.*** ➢ Give paracetamol for pain. ➢ Dry the ear by wicking. ➢ Follow-up in 5 days.
• Pus is seen draining from the ear and discharge is reported for 14 days or more.	**CHRONIC EAR INFECTION**	➢ Dry the ear by wicking. ➢ Topical ciprofloxacine ear drops for 2 weeks. ➢ Follow-up in 5 days.
• No ear pain and No pus seen draining from the ear.	**NO EAR INFECTION**	No additional treatment.

Assess and Classify Malnutrition

- **Assess Malnutrition**
  - **Look and feel:**
    - Look for visible severe wasting
    - Look for edema of both feet
    - Determine grade of malnutrition by plotting weight for age



- **Classify Malnutrition**

• Visible severe wasting or • Oedema of both feet.	**SEVERE MALNUTRITION**	➢ ***Give single dose of Vitamin A.*** ➢ ***Prevent low blood sugar.*** ➢ ***Refer URGENTLY to hospital #*** ➢ ***While referral is being organized, warm the child.*** ➢ ***Keep the child warm on the way to hospital.***
• Severely Underweight (< -3 SD)	**VERY LOW WEIGHT**	➢ Assess and counsel for feeding -if feeding problem, follow-up in 5 days ➢ Advise mother when to return immediately ➢ Follow-up in30 days.
• Not Severely Underweight (≥ -3SD)	**NOT VERY LOW WEIGHT**	➢ If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the FOOD box on the *COUNSEL THE MOTHER* chart. - If feeding problem, follow-up in 5 days. ➢ Advise mother when to return immediately.

Assess and Classify Malnutrition

Remember:

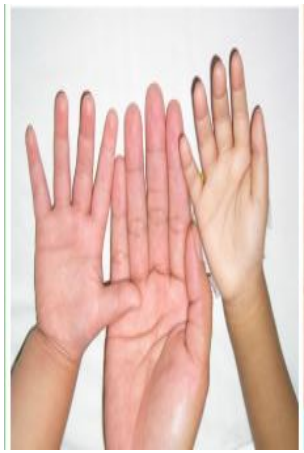
- A child with severe malnutrition has a serious problem and should be urgently referred to hospital
- Children with very low weight should be assessed and counseled for feeding
- All children less than 2 years of age and should be assessed and counseled for feeding

Assess and Classify Anemia

Remember:

- A child with severe malnutrition has a serious problem and should be urgently referred to hospital
- Children with very low weight should be assessed and counseled for feeding
- All children less than 2 years of age and should be assessed and counseled for feeding

- **Check for Anemia. Look and feel:**
  - Look for palmar pallor
    - Severe palmar pallor?
    - Some palmar pallor?
    - No palmar pallor?
- **Classify Anemia**



• Severe palmar pallor	**SEVERE ANAEMIA**	➢ ***Refer URGENTLY to hospital #.***
• Some palmar pallor	**ANAEMIA**	➢ *Give iron folic acid therapy for 14 days.* ➢ Assess the child's feeding and counsel the mother on feeding according to the FOOD box on the *COUNSEL THE MOTHER* chart. - If feeding problem, follow-up in 5 days. ➢ Advise mother when to return immediately. ➢ Follow-up in 14 days.
• No palmar pallor	**NO ANAEMIA**	➢ *Give prophylactic iron folic acid if child 6 months or older.*

Assess Immunization, Prophylactic Vitamin A and Iron- Folic Acid

Immunization Status

Age	Vaccine
Birth	BCG + OPV - O
6 weeks	OPT-1+ OPV-1 +HepB-1*
10 weeks	OPT-2+ OPV-2 +HepB-2*
14 weeks	OPT-3+ OPV-3 +HepB-3*
9 months	Measles OPT
16-18 months	+ OPV
60 months	DPT
*Hepatitis B, if included in the immunization Schedule	

Assess Immunization, Prophylactic Vitamin A and Iron- Folic Acid

Immunization Status

- There are only three situations at present which are contraindications to immunization:
  - Do not give BCG to child known to have AIDS, however asymptomatic HIV positive baby can be given BCG vaccination
  - Do not give DPT-2 or DPT T-3 to a child who has had convulsions after last first dose of DPT or shock within 3 days of the most recent dose
  - Do not give DPT to a child with recurrent convulsions or any active neurological disease of the central nervous system

Assess Immunization, Prophylactic Vitamin A and Iron- Folic Acid

Prophylactic Vitamin A Supplementation Status	Iron-Folic Acid Supplementation Status
• 100,000 IU (1ml) at 9 months with measles immunization 200,000 IU (2 ml) at 16-18 months with OPT Booster 200,000 IU (2 ml) at 24 months • 200,000 IU (2 ml) at 30 months • 200,000 IU (2 ml) at 36 months	• Give one tablet of pediatric IFA (20 mg elamucural iron and 100 mg folic acid)/ 5 ml of IFA syrup or 1ml of IFA drops. • For a total of 100 days in a year after the child has recovered from acute illness, if: ✓ The child is 6 months of age or older, and ✓ Has not received pediatric IFA Tablet for 100 days in last one year.

Identify Treatment and Treat Sick Child

Signs	Classify as	Identify treatment
• Any general danger sign or • Chest in drawing or • Stridor in calm child	Severe Pneumonia or Very Severe Disease	• Give first dose of injectable chloramphenicol (40 mg/kg), if not possible give oral amoxicillin/ co-trimoxazole • Refer urgently to hospital
Fast breathing	Pneumonia	• Give co-trimoxazole for 5 day. (2 pediatric tables twice daily for a child between 2 months to 12 months, and 3 tablets twice daily for a child 12 months up to 5 years • Advise mother when to return immediately • Follow up in 2 days
No sign of pneumonia or very sever disease	No Pneumonia : Cough or Cold	• Advise home care for cough or cold with safe home remedy, if child is 6 months or older • if coughing for more than 30 days, refer for assessment • Advise mother when to return immediately

Identify Treatment and Treat Sick Child

Identify Treatment for Diarrhea and Dehydration

Signs	Classify as	Identify Treatment
Two of the following signs: • Lethargic or unconscious. • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very • Slowly	Classify as severe Dehydration	• If child has no other sever classification. Give fluid for severe dehydration (plan C) • If the child has another severe classification, refer urgently to hospital • Advise mother to continue breastfeeding, If child is 2 years or older and there is cholera in your area give doxycycline for cholera
Two of the following signs: • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly	Some Dehydration	• Give fluid and food for some dehydration (Plan B) • Follow-up in 5 days if not improving • Advise mother when to return immediately • If child has another severe classification,

Identify Treatment and Treat Sick Child

Identify Treatment for Diarrhea and Dehydration

Signs	Classify as	Identify Treatment
Not enough signs to classify as some or severe dehydration. Classification of some persistent diarrhea	No dehydration	• Give fluid and food to treat diarrhea at home (Plan A) • Follow-up in 5 days if not persistent diarrhea • Advise mother when to return immediately
Dehydration Present	Severe Persistent Diarrhea	• Treat dehydration before referral unless the child has another severe\ classification • Refer to hospital
No Dehydration	Persistent Diarrhea	• Advise mother on feeding a child with persistent diarrhea
Blood in the stool	Dysentery	• Give single dose of Vitamin A • Give Zinc Sulphate 20 mg daily for 14 days Follow up in 5 days • Give cotrimoxazole for 5 days (2 pediatric tablets twice daily for a child 2 months up to 12 months and 3 tablets twice daily for a child 12 months up to 5 years) • Follow-up in 2 days

Identify Treatment and Treat Sick Child

Identify Treatment for Ear Problem

Signs	Classify as	Identify Treatment
Tender swelling behind the ear	Mastoiditis	• Give first dose of injectable Chloramphenicol (if not possible - give oral amoxicillin) • Give first dose of paracetamol for pain • Refer to hospital urgently
• Pus is seen draining from the ear and discharge is reported for less than 14 days or • Ear pain Pus is seen draining from the ear and discharge is reported for 14 days or more	Acute Ear Infection Chronic ear Infection	• Give cotrimoxazole for 5 days • Give paracetamol for pain • Dry the ear by wicking • Follow up in five days
No ear pain and no ear	No ear	No additional treatment

Identify Treatment and Treat Sick Child

Identify Treatment for Anemia

Signs	Classify as	Identify Treatment
Severe palmar pallor	Severe Anemia	• Refer to hospital urgently
Some palmar pallor	Anemia	• Give Iron Folic Acid therapy for 14 days • Assess and counsel for feeding • Follow-up in 5 days in case of feeding problem otherwise in 14 days
No palmar pallor	No Anemia	• Give prophylactic iron folic acid if the child 6 months or older

Counsel the Mother

➢ *Feeding Recommendations During Sickness and Health*

Up to 6 Months of Age

Breastfeed as often as the child wants, day and night, at least 8 times in 24 hours.

- Do not give any other foods or fluids not even water

Remember:
- Continue breastfeeding if the child is sick

6 Months up to 12 Months

- Breastfeed as often as the child wants.
- Give at least one katori serving* at a time of :
  - Mashed roti/ rice /bread/biscuit mixed in sweetened undiluted milk OR
  - Mashed roti/rice/bread mixed in thick dal with added ghee/oil or khichri with added oil/ghee. Add cooked vegetables also in the servings OR
  - Sevian/dalia/halwa/kheer prepared in milk or any cereal porridge cooked 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.

Remember:
- Keep the child in your lap and feed with your own hands
- Wash your own and child's hands with soap and water every time before feeding

12 Months up to 2 Years

- Breastfeed as often as the child wants.
- Offer food from the family pot
- Give at least 1½ katori serving* at a time of :
  - Mashed roti/rice/bread mixed in thick dal with added ghee/oil or khichri with added oil/ghee. Add cooked vegetables also in the servings OR
  - Mashed roti/ rice /bread/biscuit mixed in sweetened undiluted milk OR
  - Sevian/dalia/halwa/kheer prepared in milk or any cereal porridge cooked in milk OR
  - Mashed boiled/fried potatoes
  - Offer banana/biscuit/ cheeko/ mango/ papaya

* 5 times per day.

Remember:
- Sit by the side of child and help him to finish the serving
- Wash your child's hands with soap and water every time before feeding

2 Years and Older

- Give family foods at 3 meals each day.
- Also, twice daily, give nutritious food between meals, such as: banana/biscuit/ cheeko/ mango/ papaya as snacks

Remember:
- Ensure that the child finishes the serving
- Teach your child wash his hands with soap and water every time before feeding

Feeding Recommendations For a Child who Has PERSISTENT DIARRHOEA

- If still breastfeeding, give more frequent, longer breastfeeds, day and night.
- If taking other milk:
  - replace with increased breastfeeding OR
  - replace with fermented milk products, such as yoghurt OR replace half the milk with nutrient-rich semisolid food.
  - Add cereals to milk (Rice, Wheat, Semolina)
- For other foods, follow feeding recommendations for the child's age.

Follow-up Care for Sick Child

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

PNEUMONIA

After 2 days:

Check the child for general danger signs.
Assess the child for cough or difficult breathing. } *See ASSESS & CLASSIFY chart.*
Ask:
- Is the child breathing slower?
- Is there less fever?
- Is the child eating better?

Treatment:

- If *chest indrawing or a general danger sign*, give intramuscular chloramphenicol. Then refer URGENTLY to hospital.
- If *breathing rate, fever and eating are the same*, refer to hospital.
- If *breathing slower, less fever, or eating better*, complete the 5 days of antibiotic.

PERSISTENT DIARRHOEA

After 5 days:

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

Treatment:

- If *the diarrhoea has not stopped (child is still having 3 or more loose stools per day)*, do a full reassessment of the child. Give any treatment needed. Then refer to hospital.
- If *the diarrhoea has stopped (child having less than 3 loose stools per day)*, tell the mother to follow the usual feeding recommendations for the child's age. Continue oral zinc for a total of 14 days.

DIARRHOEA

After 5 days:
Ask:
- Has the diarrhoea stopped?
- How many loose stools is the child having per day ?

Treatment:
- If diarrhoea persists, Assess the child for diarrhoea (*> See ASSESS & CLASSIFY chart)* and manage as on initial visit .
- If diarrhoea has stopped *(child having less than 3 loose stools per day)*, tell the mother to follow the usual feeding recommendations for the child's age.

DYSENTERY

After 2 days:

Assess the child for diarrhoea. *> See ASSESS & CLASSIFY chart.*
Ask:
- Are there fewer stools?
- Is there less blood in the stool?
- Is there less fever?
- Is there less abdominal pain?
- Is the child eating better?

Treatment:

- If the child is *dehydrated*, treat dehydration.
- If *fewer stools, less blood in the stools, less fever, less abdominal pain, and eating better,* continue giving the same antibiotic until finished.
- If *number of stools, amount of blood in stools, fever, abdominal pain, or eating is the same or worse : Refer to hospital*

Follow-up Care for Sick Child

GIVE FOLLOW-UP CARE

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

MALARIA

After two days :

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

Treatment:

- If the child has ***any general danger sign or stiff neck***, treat as VERY SEVERE FEBRILE DISEASE.
- If the child has any ***cause of fever other than malaria***, provide treatment.
- If ***malaria is the only apparent cause of fever:***
  - Advise the mother to return again in 2 days if the fever persists. Continue Primaquine if P.vivax was positive for a total of 14 days.
  - If fever has been present for 7 days, refer for assessment.

MEASLES WITH EYE OR MOUTH COMPLICATIONS

After 2 days:

Look for red eyes and pus draining from the eyes.
Look at mouth ulcers.
Check for foul smell from the mouth.

Treatment for Eye Infection:

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

Treatment for Mouth Ulcers:

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

FEVER-MALARIA UNLIKELY (Low Malaria Risk)

If fever persists after 2 days:

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

Treatment:

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

EAR INFECTION

After 5 days:

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

Treatment:

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

Follow-up Care for Sick Child

GIVE FOLLOW-UP CARE

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

➢ FEEDING PROBLEM

After 5 days:

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

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

➢ ANAEMIA

After 14 days:

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

➢ VERY LOW WEIGHT

After 30 days:

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

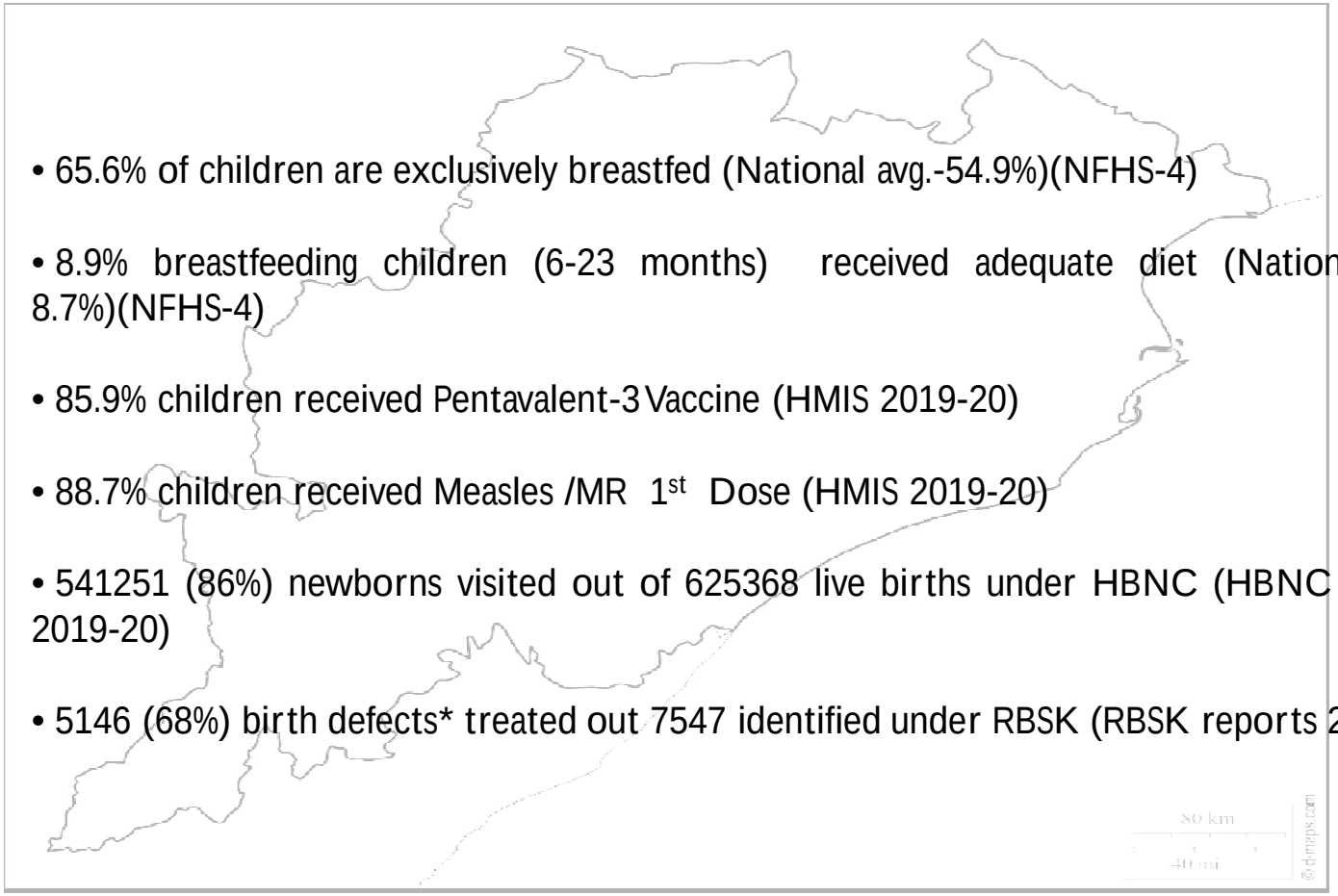
Treatment:

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

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

Social Awareness and Actions to Neutralize Pneumonia Successfully (SAANS)

Status of existing interventions



- 65.6% of children are exclusively breastfed (National avg.-54.9%)(NFHS-4)
- 8.9% breastfeeding children (6-23 months) received adequate diet (National Avg.-8.7%)(NFHS-4)
- 85.9% children received Pentavalent-3 Vaccine (HMIS 2019-20)
- 88.7% children received Measles /MR 1st Dose (HMIS 2019-20)
- 541251 (86%) newborns visited out of 625368 live births under HBNC (HBNC Reports 2019-20)
- 5146 (68%) birth defects* treated out 7547 identified under RBSK (RBSK reports 2019-20)

**cleft lip, cleft palate, Down's syndrome and Congenital Heart Disease*

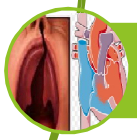
Key facts about Childhood Pneumonia

deaths related to Pneumonia, seen in **winter months** and the worst affected are children from poor socio-economic situations

45% of all Pneumonia deaths in under-5 children results due to exposure to household air pollution

65% of cases of children suffering from ARI are due to exposure to **unclean fuel use**

35% of ARI cases more prevalent in the **lowest wealth quintile** as compared to highest wealth quintile



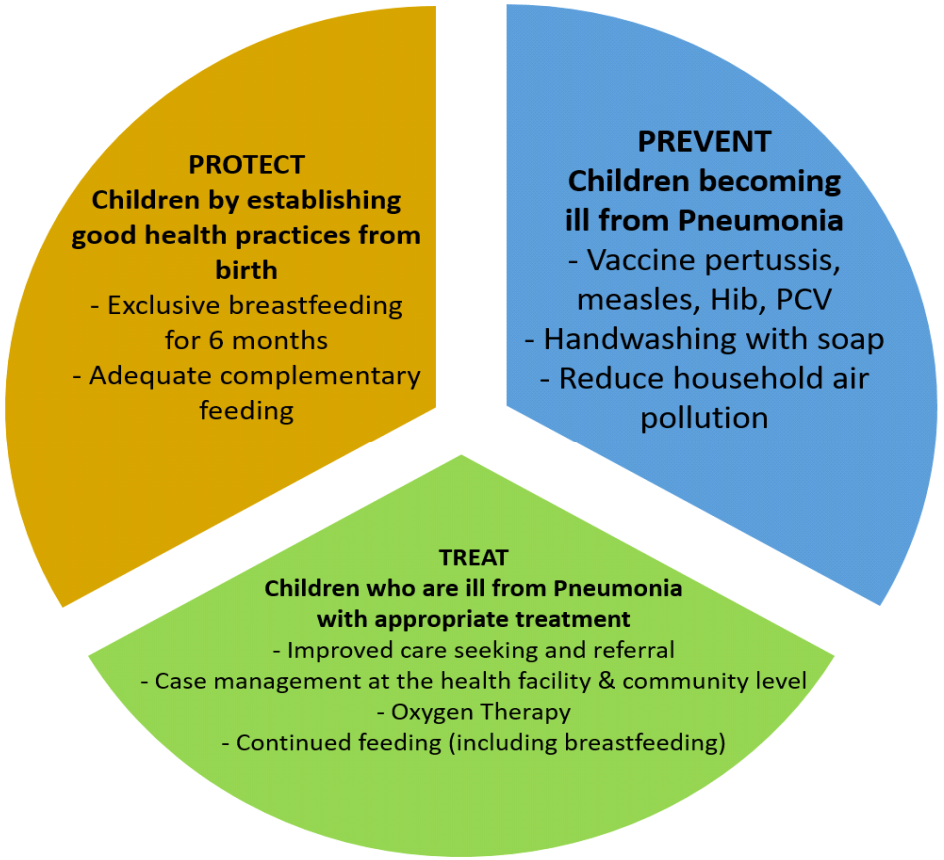
Birth defects like cleft palate, Congenital Heart Disease etc. are important contributors of recurrent childhood Pneumonia

Untreated severe Pneumonia can lead to hypoxia, causing death among children with Pneumonia

Less number of girls were given treatment for Pneumonia compared to boys

Protect, Prevent & Treat (PPT) Interventions

Majority of these PPT interventions are at family & community levels and requires strong linkages



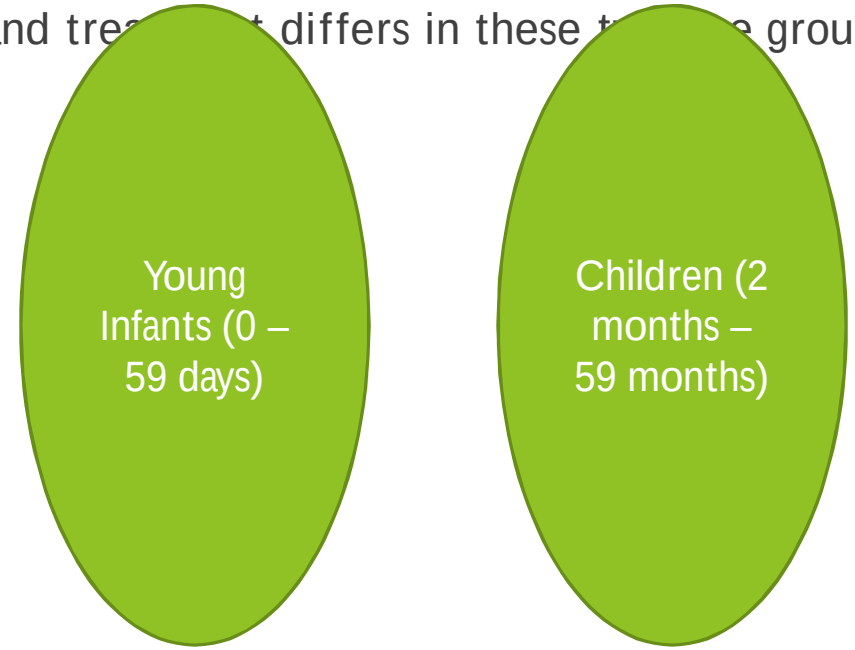
Cont..

The table below denotes various National health programs and interventions that have relevance in supporting Pneumonia control measures:

Health Programs	Relations to PPT framework
Infant and Young Child Feeding Programme	Protect
Vitamin A supplementation	Protect
Universal Immunization Programme/Mission Indradhanush	Prevent
Poshan Abhiyan (National Nutrition Mission)	Protect & Treat
Mother's Absolute Affection (MAA) Program	Protect & Treat
Home Based Newborn Care (HBNC)	Protect, Prevent & Treat
Home Based Young Child Care (HBYC)	Protect, Prevent & Treat
Integrated Management of Neonatal and Childhood Illness (IMNCI)	Protect, Prevent & Treat
Facility based Integrated Management of Neonatal and Childhood Illness (F-IMNCI)	Protect, Prevent & Treat
Facility Based Newborn Care (FBNC)	Treat
Health and Wellness Centres	Prevent
Pradhan Mantri Ujjwala Yojana	Prevent
RBSK identification and management of birth defects	Prevent

Community & Facility Based Management

- Objective - to manage children presenting with symptoms of cough, fast breathing and/or difficulty in breathing due to Pneumonia, at all levels of the health system
- Children under 5 years of age are managed in 2 age bands as clinical presentation, assessment and tre[illegible]t differs in these t[illegible]e groups



Community and Outpatient Case Management of Young Infant with PSBI (0-59 days)

Signs	Classify as	Treatment
• Not able to feed or • Convulsions or • Fast breathing (>60 breaths/min) or • Severe chest in drawing or • Axillary temperature > 37.5^0C • Movement only when stimulated or	POSSIBLE SERIOUS BACTERIAL INFECTION	• Give first dose of oral Amoxicillin and injectable Gentamicin • Treat to prevent low blood sugar (breast feed/ age appropriate feed) • Warm the young infant if temperature less than 35.5^0C (or feels cold to touch) while arranging referral • Advise mother how to keep young infant warm on their way to the hospital

Points to remember:

- Respiratory rate to be measured for one full minute
- The respiratory rate should be counted when the baby is calm and not crying or being fed
- severe chest in-drawing is very deep and easy to see and is a sign of severe Pneumonia
- the infant should be observed in a different position, lying flat in the mother's lap or on a bed.
- Chest in-drawing is significant if it is present all the time, in all positions and not only when the child is crying or upset but also when calm and peaceful

Community and Facility Based Case Management (2 months – 59 months)

- Management protocol for children(2 months to 59 months of age) with cough and/or difficulty in breathing by CHO at HWCs

Signs	Classify as	Management by CHO
• General danger signs (Inability to breastfeed or drink,, lethargy or reduced level of consciousness, convulsions) or • Chest in drawing	Severe Pneumonia or very severe disease	• Refer immediately for hospitalization after pre-referral dosage of oral Amoxicillin & IM gentamicin • Give oxygen If saturation < 90%, while arranging referral
•Fast breathing: (Respiratory rates: • 2-11 months ≥50/min •12-59 months ≥ 40/min)	Pneumonia	• Give Oral Amoxicillin for 5 days In consultation with MOPHC • Treat wheeze If present • Advise home care for cough & cold • Advise mother when to return immediately • Follow up after 2 days
• No signs of severe Pneumonia or Pneumonia	No Pneumonia /	• Advice home care for cough and cold • If coughing for more than 14 days, refer for assessment

Community & Facility Based Management

Guidelines for identification & management of pneumonia in young infants (0-2 months)

In young infants, it is difficult to differentiate between Pneumonia, Meningitis & Sepsis. However, the treatment of these conditions are quite similar. Therefore, these are grouped as Possible Serious Bacterial Infection (PSBI)

Signs of PSBI
Not able to feed/ Convulsions/ Fast breathing/ Severe chest indrawing/ Axillary temperature 37.5°C or above or less than 35.5°C/ Movement only when stimulated/ no movement at all

Condition	ASHA	ANM	CHO	MO
PSBI	**Community:** Counsel the family for urgent referral and arrange	**Community & OPD:** Refer after pre-referral dose of Amoxicillin & Gentamycin Manage with oral Amoxicillin and Gentamycin	**In OPD:** Refer after pre-referral dose of Amoxicillin & Gentamycin Manage with oral Amoxicillin and Gentamycin if	**In OPD**: Refer after pre-referral dose of Amoxicillin & Gentamycin Manage with oral Amoxicillin and Gentamycin if referral is not possible.

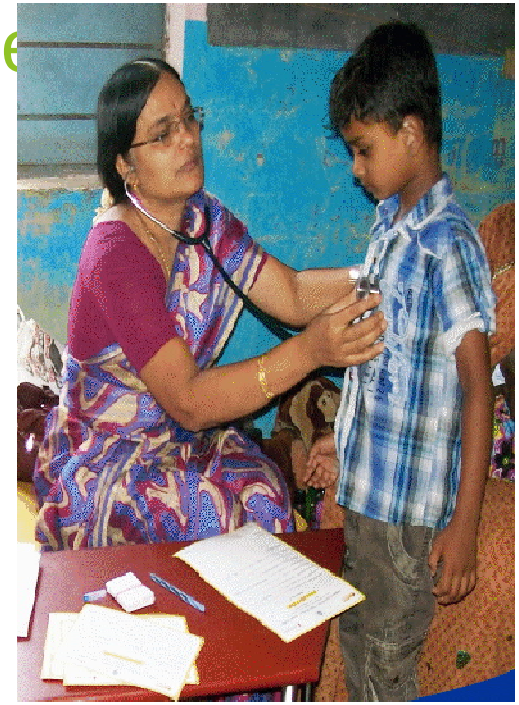
Guidelines for identification of pneumonia in children between 2 months to 5 years

Signs	Classify as
• General danger signs (inability to breastfeed or drink, lethargy or reduced level of consciousness, convulsions) or • Chest in-drawing	Severe Pneumonia or Very Severe Disease
• Fast breathing: (Respiratory Rates: 2-11 months ≥50/min 12-59 month ≥40/min)	Pneumonia
• No signs of severe Pneumonia or Pneumonia	No Pneumonia/ Cough or cold

Guidelines for management of pneumonia in children between 2 months to 5 years

Condition	ASHA	ANM	CHO	MO
Severe Pneumonia/ Very Severe Disease	Refer urgently	Refer after pre-referral dose of Amoxicillin and Gentamicin	Refer after pre-referral dose of Amoxicillin and Gentamicin	Hospitalize and Treat
Pneumonia	Refer after pre-referral dose of Amoxicillin	Treat with Amoxicillin	Treat with Amoxicillin in consultation with MO PHC	Treat with Amoxicillin
No Pneumonia Cough	Home care	Home Care	Home Care	Home Care

Inter-department Convergence



Department of Health & Family Welfare

- Programme Implementation
- Procurement & Supply of equipment
- Capacity Building
- Quality implementation of protect & prevent interventions
- Printing & IEC
- Procurement of Drugs & Logistics

- **Department of Women & Child Development**
  - Growth monitoring
  - Exclusive breastfeeding for 6 months
  - Adequate complementary feeding
  - Improved care seeking & referral through AWWs & VHND's
  - Health education and counselling

Roles & Responsibilities of all stakeholders

Who	Where	What
Staff Nurse	PHC/CHC/District & Sub–District hospital	• Support facility management
Community Health Officer	Health &Wellness Centre	• OPD management in consultation with MO PHC • Record daily treatment details in the Treatment Card for PSBI cases • Reporting: Counter slips of the Treatment Card should be sent to MOs at PHC • Orientation of ANMs &ASHA • Supervise VHSNDs • Discuss & review management during monthly meetings • Ensure orientation of ASHAs/ ANMs on IEC & communication materials/ job aid & MCP Card
LHVs/ANM Supervisor	HWCs/Sub-centre& VHND/HWD	• Orientation of ANMs • Counter slips of Treatment Card to be collected & compiled at block level • On job mentoring &supportive supervision • Ensuring availability of supplies • Facilitate conducting monthly meetings at sub-centres

Thank You