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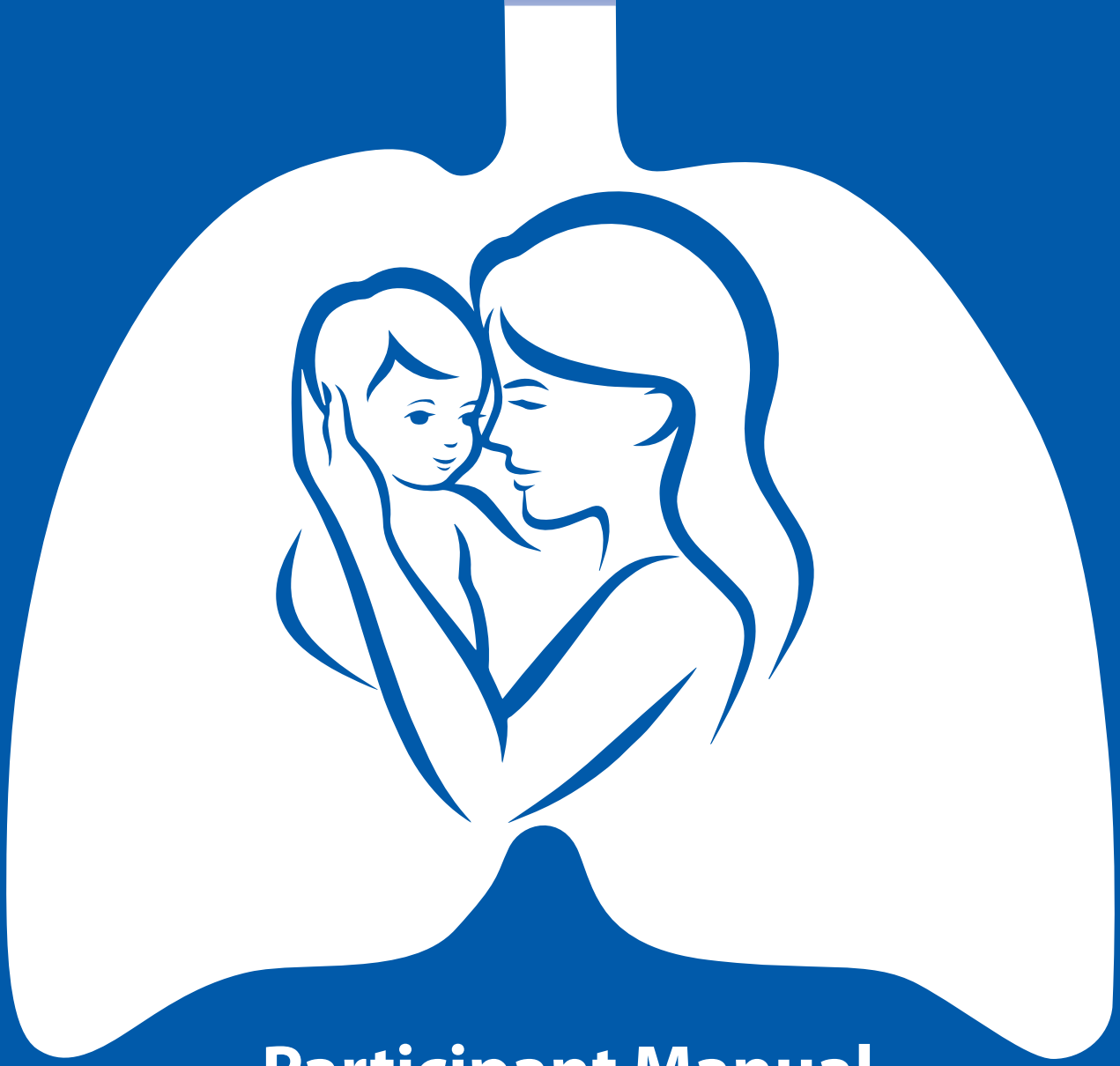
NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन



Participant Manual

Pneumonia Management

For Community Health Officers, ANMs & ASHAs

Ministry of Health & Family Welfare,
Government of India, New Delhi

April 2020

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Table of Contents

List of Abbreviations

ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infection
ASHA	Accredited Social Health Activist
ALRI	Acute Lower Respiratory tract Infection
CHO	Community Health Officer
DPT	Diphtheria, Tetanus, and Pertussis
EBF	Exclusive Breast Feeding
EIBF	Early Initiation of Breast Feeding
GAPPD	Global Action Plan for the Prevention & Control of Pneumonia and Diarrhea
HIV	Human Immunodeficiency Virus
HWC	Health and Wellness Center
IAPPD	India Action Plan for the Prevention & Control of Pneumonia and Diarrhea
IPC	Inter Personal Communication
IM	Intramuscular
IMNCI	Integrated Management of Neonatal & Childhood Illness
IV	Intra Venous
IYCF	Infant and Young Child Feeding
JSSK	Janani Shishu Surakshaa Karyakaram
KMC	Kangaroo Mother Care
MO	Medical Officer
MDI	Metered Dose Inhaler
WASH	Water, Sanitation and Hygiene

Section 1: Introduction

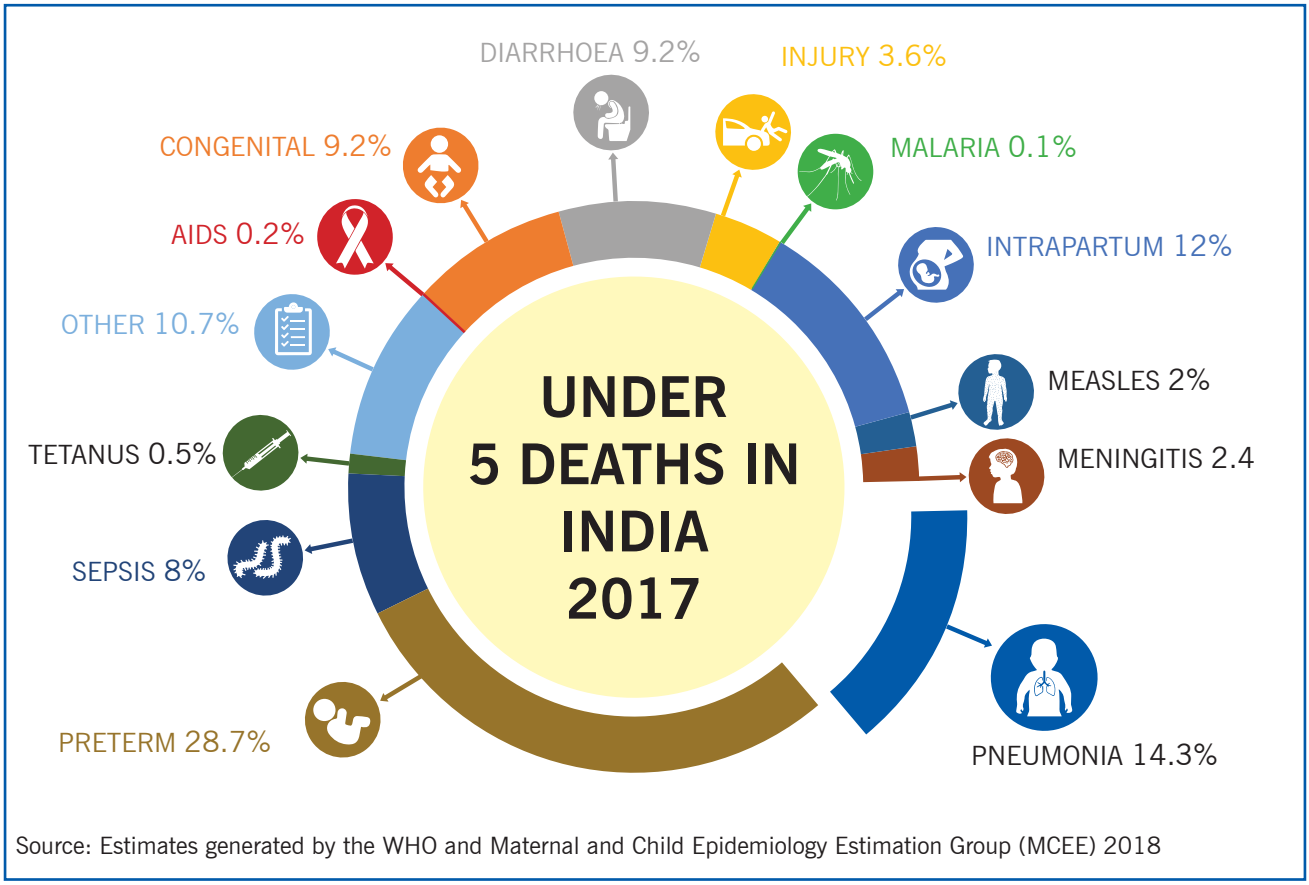
Childhood Pneumonia continues to be the topmost infectious killer among under-five children, contributing to 14.3 percent of under five deaths in the country. Around 1.27 lakhs children die due to Pneumonia annually in the country. Mortality due to pneumonia is strongly linked to malnutrition, poverty and inadequate access to health care.

Pneumonia morbidity & mortality in India	
Number of episodes of ARI/Pneumonia every year[1]	30 Million
Incidence Rate (per child per year)[2]	0.22
Severe cases out of total cases	3 Million (10%)
Mortality Rate per 1000 live births[3]	5.7

The national goals for pneumonia to be achieved by 2025, under the Integrated India Action Plan for Pneumonia and Diarrhoea (IAPPD) are:

- Reduce mortality from pneumonia to < 3 per 1000 live births;
- Reduce the incidence of severe pneumonia by 75% as compared to 2010 levels

Figure 1- Causes of Under 5 Deaths in India, 2017



Source: Estimates generated by the WHO and Maternal and Child Epidemiology Estimation Group (MCEE) 2018

1. Lancet Volume 17, November 2017, Estimates of the global, regional and national morbidity, mortality and etiologies of lower respiratory tract infections in 195 countries : A systematic analysis for Global burden of disease study 2015
2. Pneumonia estimates based on census 2011 and Pneumonia morbidity data from Lancet Volume 17, November 2017
3. Estimates based on Census 2011 population, SRS 2017 and Pneumonia Mortality data from Lancet Volume 17, November 2017

1.1- Protect, Prevent and Treat framework

The protect, prevent and treat framework provides key interventions to comprehensively address the pneumonia problem. Deaths due to pneumonia are largely preventable if protect, prevent & treat interventions (PPT) are adequately and appropriately implemented. The Protect, Prevent and Treatment Framework for Pneumonia management is as follows:

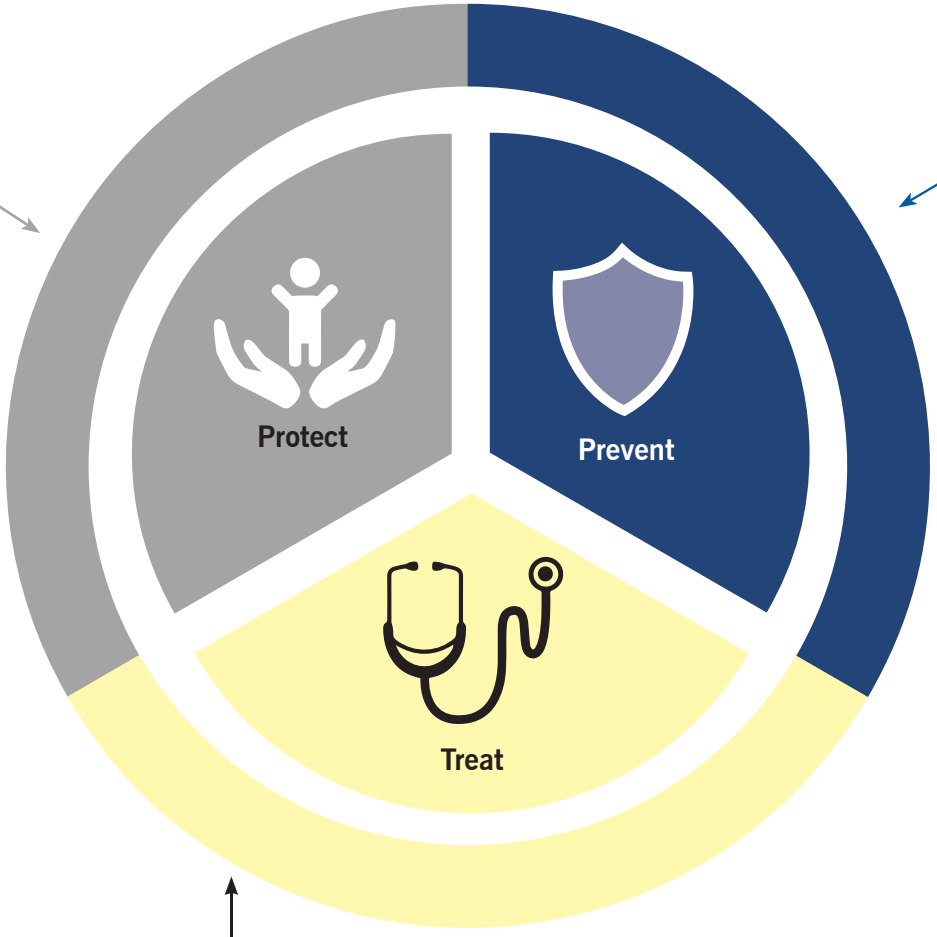
Figure 2- Framework of Childhood Pneumonia adapted from GAPPD / IAPPD

Protect Children by establishing good health practices from birth

- Exclusive breastfeeding for 6 months
- Adequate complementary feeding
- Vitamin A supplementation

Prevent children becoming ill from Pneumonia

- Vaccine pertussis, measles, Hib, PCV
- Handwashing with soap
- Reduce household air pollution



Treat Children who are ill from pneumonia with appropriate treatment

- Improved care seeking and referral
- Case management at the health facility & community level
- Supplies: Antibiotics, Oxygen
- Continued feeding (including breastfeeding)

Protect

Protecting children by establishing and promoting good health practices;

- Exclusive breastfeeding for six months and continued breastfeeding with appropriate complementary feeding reduces the onset and severity of pneumonia
- High-dose vitamin A supplementation helps maintain strong immune systems and can reduce all-cause mortality

Prevent

Preventing children from becoming ill from pneumonia by ensuring universal coverage of immunization, and healthy environments;

- Use of vaccines like Measles/MMR, Pentavalent vaccine, Pneumococcal vaccine substantially reduces the disease burden and deaths caused by the infectious agents.
- Hand-washing and promotion of key hygiene practices provide health, economic and social benefits.
- Reduction of household air pollution has been shown to reduce pneumonia incidence. According to WHO 45% of pneumonia deaths in children are attributable to household air pollution

Treat

Treating children who are ill from pneumonia with appropriate treatment;

- Identification and treatment of pneumonia in the community, at first-level health facilities and at referral hospitals using standardized guidelines substantially reduces child deaths.

1.2 -Overview of the training module

This training module provides guidance on assessment, classification and management of children with pneumonia age up to 5 years. Further, this module is divided in two age groups.

- 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)

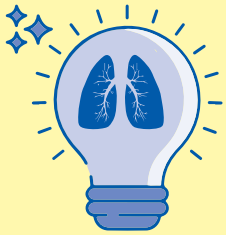
The module aligns with the IMNCI approach of assess, classify and treat using three colours (pink, yellow and green):

- Conditions with pink colour indicate severe illness. Children with a severe illness must be referred to a hospital or sent to the doctor.
- Conditions with yellow colour should be treated with medicine at home and home care advice to the mother.
- Conditions with green colour are to be treated with home care without the use of medicines.

Section 2: Pneumonia assessment, classification and management protocol for children

After the session, the participants "Must Know":

- Classification of pneumonia
- Identification of danger signs for pneumonia
- Community management of pneumonia
- Dose and duration for treatment with Amoxicillin
- When and where to refer a child with Severe Pneumonia/ Very Severe Disease



What is Pneumonia?

- Pneumonia: Pneumonia is inflammation of lungs, in which the air sacs (alveoli) get filled with pus & may become solid. Pneumonia is inter-changeably used as Acute Lower Respiratory tract Infection (ALRI) or Acute Respiratory Infections (ARI).
- Pneumonia is frequently caused due to infection which may be bacterial, viral, fungal, or parasitic. The most common bacteria causing pneumonia are *Streptococcus pneumoniae* and *Haemophilus influenzae.* Children with bacterial pneumonia may die from hypoxia (too little oxygen) or sepsis (generalized infection).
- Symptoms may include fever, cough, and difficulty in breathing.

Two important clinical signs for assessing pneumonia:

- Fast breathing
- Chest indrawing

2.1- Community/Outpatient case management of Pneumonia in children (2-59 months)

- Greet and ask the mother what the child's problems are
- Determine if this is initial visit or a follow up visit for this problem
- Check for general danger signs: A child with any general danger sign needs URGENT attention; complete the assessment and any pre-referral treatment immediately so referral is not delayed.

The general danger signs are:

- Not able to drink or breastfeed
- Vomits everything
- Convulsions
- Lethargic or unconscious

ASK: Is the child **able to drink or breastfeed?**

- A child has the sign “not able to drink or breastfeed” if the child is not able to suck or swallow when offered a drink or breastmilk.
- If the mother says that the child is not able to drink or breastfeed, ask her to describe what happens when she offers the child something to drink. If you are not sure about the mother’s answer, ask her to offer the child a drink of clean water or breastmilk. Look to see if the child is swallowing the water or breastmilk.
- A child who is breastfed may have difficulty sucking when his nose is blocked. If the child’s nose is blocked, clear it. If the child can breastfeed after his nose is cleared, the child does not have the danger sign, “not able to drink or breastfeed.”

ASK: Does the **child vomit everything?**

- A child who is not able to hold anything down at all has the sign “vomits everything.” A child who vomits several times but can hold down some fluids does not have this general danger sign.

ASK: Has the **child had convulsions?**

- Ask the mother questions on whether the child has suffered from convulsions (local term -like fits) or not.

LOOK: See if the child is **lethargic or unconscious.**

- The lethargic child is sleepy when the child should be awake. A child who stares blankly and does not appear to notice what is happening around is also lethargic.
- The unconscious child does not waken at all. This child does not respond to touch, loud noise or pain.

Remember

- All sick children must be assessed for general danger signs
- A child who has even one general danger signs has a severe problem. Refer this child urgently to nearest hospital
- Complete the rest of assessment and any pre-referral treatment immediately so that referral is not delayed

2.1.1- Assess cough or difficult breathing

ASK: The mother/caregiver if the **child has cough or difficult breathing**?

- If the child has no cough or difficult breathing, do not assess for the same. If the mother/caregiver says that the child has cough or difficult breathing, then:-

ASK: **For how long?**

- A child who has had cough for more than 14 days needs to be referred to hospital for further assessment.

LOOK: **Count the breathing rate**

- Count the breaths the child takes in one minute. Decide whether the child has normal breathing or fast breathing.
- The child must be quiet and calm. If the child is frightened, crying or angry, you will not be able to obtain an accurate count.
- To count the number of breaths in one minute:
  - Use a watch with a second hand or a digital watch.
  - Put the watch where you can see the second hand and the breathing movements.
  - Glance at the second hand as you count the breaths the child takes in one minute.
  - Look for breathing movement anywhere on the chest or abdomen. Usually you can see breathing movements even on an child who is dressed. If you cannot see this movement easily, ask the mother to lift the child's shirt.
  - If you are not sure about the number of breaths you counted, repeat the count.

Child has fast breathing if you count:

- 50 breaths per minute or more in a child 2 months upto 12 months
- 40 breaths per minute or more in a child 12 months up to 5 years

Note: For a child who is exactly 12 months old, count of 40 breathes per minute or more will be considered as fast breathing

LOOK: For **chest indrawing**

- If you did not lift the child's shirt when you counted the breaths, ask the mother to lift it now.
- Look for chest indrawing when the child breathes IN.
- Look at the lower chest wall (lower ribs). The child has chest indrawing if the lower chest wall goes IN when the child breathes IN.

Picture 1: Child with chest indrawing

In normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the child breathes IN. When chest indrawing is present, the lower chest wall goes IN when the child breathes IN.

- For chest indrawing to be present, it must be clearly visible and present all the time. If you only see chest indrawing when the child is crying or feeding, the child does not have chest indrawing.
- Chest indrawing in a child with cough or difficult breathing indicates that the child has severe pneumonia.
- A child with chest indrawing should be referred to hospital.

2.1.2- Classify cough or difficult breathing

For Accredited Social Health Activist (ASHA) workers

You would assess and classify children with cough and/or difficult breathing using the classification given below:

Sign	Classify as	Management by ASHA
• General danger signs (inability to breastfeed or drink, vomits everything, convulsions, lethargy or unconscious) Or • Chest indrawing	SEVERE PNEUMONIA OR VERY SEVERE DISEASE	• Give first dose of oral Amoxicillin • Refer urgently to health facility
• Fast breathing: (2 months up to 12 months-50 breaths per minute or more) (12 months up to 5 years- 40 breaths per minute or more)	PNEUMONIA	• Give first dose of oral Amoxicillin • Refer urgently to health facility
• No signs of Pneumonia or Very severe disease	NO PNEUMONIA: COUGH OR COLD	• Advice home care for cough & cold • If coughing for more than 14 days, refer for assessment • Follow up after 5 days if not improving

- Refer the children with classification of **Severe Pneumonia/Very Severe Disease and Pneumonia** to the appropriate health facility after administering pre-referral dose of oral Amoxicillin
- Counsel on home care for children classified as **No Pneumonia: Cough or Cold**
- In situations where referral is refused/not possible or hard to reach areas, administer full 5 days course of oral Amoxicillin under the supervision/guidance of ANM/MO

For Auxiliary Nurse Midwife (ANM)

You would assess and classify children with cough and/or difficult breathing using the classification given below:

Sign	Classify as	Management by ANM
• General danger signs (inability to breastfeed or drink, vomits everything, convulsions, lethargy or unconscious) Or • Chest indrawing	SEVERE PNEUMONIA OR VERY SEVERE DISEASE	• Give pre-referral dose of oral Amoxicillin & IM gentamicin • Refer urgently to hospital
• Fast breathing: (2 months up to 12 months-50 breaths per minute or more) (12 months up to 5 years- 40 breaths per minute or more)	PNEUMONIA	• Give oral Amoxicillin for 5 days • Advise home care for cough & cold • Follow up in 2 days*
• No signs of Pneumonia or Very severe disease	NO PNEUMONIA: COUGH OR COLD	• Advise home care for cough & cold • If coughing for more than 14 days, refer for assessment. • Follow up after 5 days if not improving

*Follow up after 2 days at Health and Wellness Center (HWC) (if functional) under the supervision of Community Health Officer (CHO). If after 2 days child's condition worsens or no improvement, refer to hospital.

- Refer the children with classification of **Severe Pneumonia/Very Severe Disease** to the appropriate health facility after administering pre-referral dose of oral Amoxicillin and Injection Gentamicin.

- Administer oral Amoxicillin for 5 days and counsel on home care to children with classification of **Pneumonia.**

- For children classified as Severe Pneumonia/ Very Severe Disease, in situations where referral is refused/not possible, administer full 7 days course of oral Amoxicillin twice a day and Injection Gentamicin once a day under the supervision/guidance of CHO/MO.

- Counsel on home care for children classified as **No Pneumonia: Cough or Cold.**

For Community Health Officer (CHO)

Assess and classify children with cough and/or difficult breathing using the classification given below.

- Measure oxygen saturation using pulse oximeter
- Listen for audible wheeze. Wheezing is a high-pitched whistling sound made while child breathes. It is heard most clearly when sick children exhale, but in severe cases, it can be heard when they inhale. It is caused by narrowed airways or inflammation in the airways

Sign	Classify as	Management by CHO
• General danger signs (inability to breastfeed or drink, vomits everything, convulsions, lethargy or unconscious) Or • Chest indrawing	SEVERE PNEUMONIA OR VERY SEVERE DISEASE*	• Refer urgently for hospitalization after pre-referral dosage of oral Amoxicillin & IM gentamicin • Give oxygen if saturation < 90%, while arranging referral**
• Fast breathing: (2 months up to 12 months-50 breaths per minute or more) (12 months up to 5 years- 40 breaths per minute or more)	PNEUMONIA	• Give Oral Amoxicillin for 5 days in consultation with MO PHC • Treat wheeze if present*** • Advise home care for cough & cold • Advise mother when to return immediately • Follow up after 2 days
• No signs of Pneumonia or Very severe disease	NO PNEUMONIA: COUGH OR COLD	• Advise home care for cough & cold • If coughing for more than 14 days, refer for assessment • Follow up after 5 days if not improving

*Refer the children with classification of **Severe Pneumonia/Very Severe Disease** and Pneumonia to the appropriate health facility after administering pre-referral dose of Oral Amoxicillin and Injection Gentamicin.

**If oxygen saturation is less than 90%, administer oxygen to the child while arranging referral

*** If the child has wheezing, give 3 doses of nebulized salbutamol for 20 minutes; or 2-4 puffs of salbutamol MDI with spacer (at a gap of 2-3 min between each puff) repeated every 20 minutes and if there is improvement continue bronchodilators under monitoring

- Administer oral Amoxicillin for 5 days and counsel on home care to children with classification of **Pneumonia**. Follow up after 2 days at Health and Wellness Centre (HWC). If condition of child is improving, complete 5 days treatment. If after 2 days, child's condition worsens or there is no improvement, refer to hospital

- For children classified as Severe Pneumonia/ Very Severe Disease, if referral is not feasible or refused, manage with oral Amoxicillin twice a day and Injection Gentamicin once a day for 7 days in consultation with MO PHC and daily assessment

- Counsel on home care for children classified as **No Pneumonia**: **Cough or Cold**

2.1.3- Treat Pneumonia

CHO/ANM will give pre-referral dose of oral Amoxicillin and injection IM Gentamicin for **Severe Pneumonia or Very Severe Disease** as per the age or weight table given below:

Table 1: Pre-referral dosage of antibiotics for Severe Pneumonia or Very Severe Disease

AGE or WEIGHT	Amount of Gentamicin to be given intramuscularly as Injection (vial* contains 80 mg in 2 ml)	Amount of Amoxicillin to be given per-orally as Syrup (contains 125 mg./ 5 ml.	Amount of Amoxicillin to be given per-orally as tablet (contains 250 mg.)
2 months up to 4 months (4 to < 6 kg)	0.5-1.0 ml	5 ml	½
4 months up to 12 months (6 kg to < 10 kg)	1.1-1.8 ml	10 ml	1
12 months up to 3 years (10 kg to <14 kg)	1.9-2.7 ml	15 ml	1½
3 years up to 5 years (14 kg to <20 kg)	2.8-3.5 ml	-	2

*Give Injection Gentamicin once a day and Oral Amoxicillin twice a day for 7 days if referral is refused/ not possible

Give Amoxicillin by mouth every morning and every night for five days. The dose of Amoxicillin according to age is summarized in table 2:

Table 2: Dosage of Amoxicillin for Pneumonia

AGE or WEIGHT	Amount of Amoxicillin to be given orally as syrup (125 mg per 5 ml) twice a day x 5 days	Amount of Amoxicillin to be given orally as a dispersible tablet (250 mg) twice a day x 5 days
2 months up to 4 months (4 to < 6 kg)	5 ml	½
4 months up to 12 months (6 kg to < 10 kg)	10 ml	1
12 months up to 3 years (10 kg to <14 kg)	15 ml	1½
3 years up to 5 years (14 kg to <20 kg)	-	2

Remember

- A child with any danger sign or chest indrawing has **Severe Pneumonia or Very Severe Disease** and needs urgent referral to hospital.
- A child who has no general danger sign and no chest indrawing but has fast breathing has **Pneumonia**. This child should be treated with medicine at home.
- A child who has no general danger sign, no chest indrawing and no fast breathing has **No Pneumonia: Cough or Cold.** The mother of this child should be advised how to give home care.

2.1.4- Home Care for child with cough and cold

Children classified as **Pneumonia or No Pneumonia**: Cough and Cold, the health worker/FLW will advise on the following home care messages:

- Advise to properly clothed the child and keep the child warm
- Breast-feeding should be continued
- Advise to give home available fluids as much as the child (more than 6 months of age) would take. This would help in the relief of cough
- Give the child a safe homemade soothing cough remedy if the child is more than 6 months of age like Honey, tulsi, ginger, herbal concoctions and other safe local home remedies. Avoid cough syrups. **An infant below 6 months who is exclusively breastfed should not be given any home remedy**
- Keep the nose clean by putting in nasal drops (boiled and cooled water with salt mixed in it) and by cleaning the nose with a soft cotton cloth. Family can also prepare saline nasal drops at home by adding ½ teaspoon of common salt (2.5 gm) to 250 ml (1 glass) of clean drinking water. Fresh solution should be prepared daily
- The family should also be advised on how to give drugs at home

Look for signs of illness, when to return:

- ✓ Child becomes sicker,
- ✓ Not able to drink or breastfeed,
- ✓ Fast breathing,
- ✓ Difficult breathing, or
- ✓ Child develops fever

- If any of these signs appear, then the mother/caregiver should contact the ASHA / ANM / Doctor immediately
- Use Mother and Child Protection Card to counsel the family on signs and prevention from pneumonia in children (refer to annexure 4)

2.2- Community/Outpatient case management of Pneumonia/ Possible Serious Bacterial Infection (PSBI) in young infants (0-59 days)

It is clinically difficult to differentiate between pneumonia, sepsis & meningitis, in young infants and the treatment of these conditions is quite similar. Therefore, these conditions are grouped as Possible Serious Bacterial Infection (PSBI). The process to assess and classify the young infant is very similar to the one you learnt for the sick child 2 months to 5 years.

2.2.1- Assess the young infant

For case management for the young infant age up to 2 months, Follow the below steps:

- Greet the mother and give a friendly smile
- Ask the mother what the young infant's problems are.
- Record what the mother tells you about the infant's problems.
- Determine if this is an initial or follow-up visit for this problem.

ASK: Is the infant having **difficulty in feeding?**

- A young infant who was feeding well earlier but is not feeding well now may have a serious infection. These infants who are either not able to feed or are not feeding well should be referred urgently to hospital.

ASK: Has the **infant had convulsions?**

- Ask the mother questions on whether the young infant has suffered from convulsions or not. Use the local term for convulsions (like fits).

LOOK: **Count the breathing rate as you have learnt for the sick child**

- Since the breathing rate of the young infant is often irregular, repeat the count if elevated (60 breaths per minute or more). The second count is accepted as the final count.
- If the young infant has fast breathing (60 breaths per minute or more), the young infant may have pneumonia. This is considered serious in a young infant.

If the Child's age is	The child has fast breathing if you count
Below 2 months	60 breaths per minute or more during second count

LOOK: For **Severe chest indrawing**

- Mild chest indrawing is normal in a young infant because the chest wall is soft. Severe chest indrawing is very deep and easy to see. Severe chest indrawing is a sign of pneumonia and is serious in a young infant

FEEL: Measure **axillary temperature** (if not possible feel for fever or low body temperature).

- Fever (axillary temperature more than 37.5˚C) is uncommon in the first two months of life. If a young infant has fever, this may mean the infant has a serious bacterial infection.
- Young infants can also respond to infection by dropping their body temperature to below 35.5˚C.
- Keep the thermometer in the axilla (armpit) and then hold the young infant's arm against his body for 5 minutes before reading the temperature. If you do not have a thermometer, feel the infant's abdomen or armpit and determine if it feels hot or cold to touch.

LOOK: At the **young infant's movements**

- Does the young infant move only when stimulated? Are there no movements even after the young infant is stimulated? Young infants often sleep most of the time, and this is not a sign of illness. If a young infant does not wake up during the assessment, ask the mother to wake him.
- An awake young infant will normally move his arms or legs or turn his head several times in a minute if you watch him closely. Observe the infant's movements while you do the assessment.
- If the infant is awake but has no spontaneous movements, gently stimulate the young infant. If the infant moves only when stimulated and then stops moving, or does not move even when stimulated, it is a sign of severe disease.

2.2.2- Classify the young infant for PSBI

The classification table for Possible Serious Bacterial Infection is as follows:

Signs	Classify as	Management
• Not able to feed or • Convulsions or • Fast breathing (60 breaths per minute or more) or • Severe chest indrawing or • Axillary temperature 37.5˚C or above (or feels hot to touch) or • Axillary temperature less than 35.5 ˚C (or feels cold to touch) or • Movement only when stimulated or no movement at all	**POSSIBLE SERIOUS BACTERIAL INFECTION**	• Give first dose of oral Amoxicillin and intramuscular 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

2.2.3- Treat the young infant for PSBI

- Warm the young infant by skin to skin contact with mother/care giver if temperature less than 36.5˚C (or feels cold to touch) while arranging referral and during transport.
- Treat to prevent low blood sugar:
  - If the child is able to breastfeed: Ask the mother to breastfeed the child.
  - If the child is not able to breastfeed but is able to swallow: Give 20-50 ml (10 ml/kg) expressed breastmilk or locally appropriate animal milk (with added sugar) before departure. If neither of these is available, give 20-50 ml (10 ml/kg) sugar water.
  - To make sugar water: Dissolve 4 level teaspoons of sugar (20 grams) in a 200-ml cup of clean water
- Make all efforts to ensure that a young infant with PSBI is referred for admission to the nearest health facility for appropriate treatment after giving the first dose/pre-referral doses of Injection Gentamicin & Syrup Amoxicillin.
- In case referral is refused by caregivers or not feasible, management of illness should be done using oral Amoxicillin twice a day & injection Gentamicin once a day for 7 days by CHO/ANMs.
- ASHA during her home visits will identify young infants with PSBI and refer them to ANM/Medical officer for further management after a pre-referral dose of syrup amoxicillin. She will also follow up young infants to ensure completion of antibiotic treatment
- Refer the young infant with PSBI after giving the first dose/pre-referral doses of Injection Gentamicin & Syrup Amoxicillin as given in table 3 below:

Table 3: Antibiotic therapy for management of PSBI- Pre-referral dose (0-2 months)

Young Infant's Weight	Amount of Gentamicin to be given intramuscularly as Injection (vial* contains 80 mg in 2 ml)	Amount of Amoxicillin to be given per-orally as Syrup*** (contains 125mg./ 5 ml.)	Amount of Amoxicillin to be given per-orally as tablet (contains 250 mg.)
	Dosage 5 mg/kg/dose * once a day	Dosage 25 mg/kg/ dose** twice a day	
Less than 1.5 Kg	To be referred to higher facility		
Above 1.5 kg – up to 2.0 Kg	0.2 ml	2 ml	¼
Above 2.0 kg – up to 3.0 Kg	0.3 ml	2.5 ml	½
Above 3.0 kg – up to 4.0 Kg	0.4 ml	3 ml	½
Above 4.0 kg – up to 5.0 Kg	0.5 ml	4 ml	½

- Give Injection Gentamicin once a day and Oral Amoxicillin twice a day for 7 days if referral is refused/ not possible

*Precaution-If the treatment is to be continued gentamicin vial can be used for entire 7 days, provided it is stored properly and its content do not change colour or have turbidity. In case of any its is better to use a new vial

**The health provider will instruct the mother how to reconstitute the syrup if it is in powder form

***Measuring cap is used to measuring dose of Amoxicillin, the amount of medicine to be given is up to 2.5 ml mark of cap for babies weighing up to 4.0 kg and for babies weighing 4.0 kg- up to 5.0 kg, the dose is 5 ml mark of cap. Similarly, if a teaspoon is used instead of a syringe dose is ½ tsp for babies weighing up to 4.0 kg and for babies weighing 4.0 kg- up to 5.0 kg, the dose is 1 tsp

COMMUNITY & OUTPATIENT MANAGEMENT OF YOUNG INFANTS (0-2 MONTHS) WITH PNEUMONIA/PSBI*

FLOW CHART

Step 1: ASSESS

- Not able to feed, or
- Convulsions, or
- Fast breathing (60 breaths per minute or more), or
- Severe chest indrawing, or
- Axillary temperature 37.5°C or above (or feels hot to the touch), or
- Axillary temperature less than 35.5°C (or feels cold to the touch), or
- Movement only when stimulated or no movement at all

Step 2: Classify

- If one or more features are present: Classify as Possible Serious Bacterial Infections (PSBI)

Step 3: Pre-referral dose & refer

ASHA (HOME BASED)

1. Counsel the mother/caregiver for urgent referral to a health facility.
2. Arrange transport facility using JSSK scheme.
3. Give pre-referral dose of Oral Amoxicillin.

ANM

1. Give pre-referral dose Inj. Gentamicin and Oral Amoxicillin.
2. Counsel the mother/caregiver for urgent referral to the health facility (By ANM ; to the nearest health facility).
3. Arrange transport to the facility using JSSK scheme.
4. Fill up the Treatment Card and give counter slip to mother /caregiver to take with them to the health facility equipped with standard in-patient treatment.

REFERRAL TO THE HEALTH FACILITY

Young Infant's weight	Amount of Gentamicin to be given intramuscularly as Injection (vial* contains 80 mg in 2ml	Amount of Amoxicillin Syrup to be given per-orally** contains 125mg /5ml	Amount of Amoxicillin to be given per-orally as tablet (contains 250mg.)
	Dosage 5 mg/kg /dose**once a day	Dosage 25 mg/dose*** twice a day	
Less than 1.5kg	To be referred to higher facility		
Above 1.5 kg up to 2.0 kg	0.2 ml	2 ml	¼
Above 2.0 kg up to 3.0 kg	0.3 ml	3.5 ml	½
Above 3.0 kg up to 4.0 kg	0.4 ml	3 ml	½
Above 4.0 kg up to 5.0 kg	0.5 ml	4 ml	½

Step 4: Manage if referral not possible

ADMISSION/REFERRAL REFUSED OR NOT POSSIBLE

Medical officer/ANM to start Inj. Gentamicin and Oral Amoxicillin

1. ANM to inform Medical Officer /Nurse at the health facility about the young infant's condition and the treatment.
2. Teach the mother how to give oral Amoxicillin at home for a total of 7 days.
3. Counsel the mother on how to keep young infant warm and breast feed frequently.
4. Fill up the Treatment Card
5. Inform the concerned ANM /ASHA about the young infant's condition and the treatment, and plan for follow-up.

Step 5: Follow up

ANM (PHC/HSC/HSWC level)

1. Ensure daily administration of Inj. Gentamicin and oral Amoxicillin for a total of 7 days.
2. In case the young infant is unable to visit the health facility, the ANM should visit the home of the infant and administer Inj. Gentamicin.
3. Check young infant's condition and presence of danger signs.
4. ANM should inform the Medical Officer/Nurse at the nearest health facility about the progress.
5. In case the young infant's condition worsens or there is no improvement within 24-48 hours of starting treatment, refer immediately under the JSSK scheme to a facility where standard treatment is available.

*Possible Serious Bacterial Infection

**If the treatment is to be continued, same vial can be resued for 7 days, provided it is stored properly in a cold, dry & dark place and its colour does not change or have turbidity. In case of any doubt it is better to use a new vial.

***Teach the mother how to give Amoxicillin at home.

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Section 3: Case Studies for Pneumonia Management

Case 1: Subodh

Subodh is a 4-week-old infant. His weight is 5 kg. His axillary temperature is 36.5ºC. He is brought to the facility because he is having difficulty breathing. The health worker first checks the young infant for signs of possible bacterial infection. His mother says that Subodh had convulsions. The health worker counts 74 breaths per minute. She repeats the count. The second count is 70 breaths per minute. She finds that Subodh also has severe chest indrawing.

1. What is your classification?

Classification……

2. How will you manage the child?

……

……

……

Case 2: Mamta

Mamta is 14 months old. Her weight is 11 kgs. The mother says that she has cough for five days. She has no history of convulsions. She is accepting feeds and is active and alert. The health worker counts the respiratory rate of 55 breaths per minute. She has no chest indrawing,

1. What is your classification?

Classification……

2. How will you manage the child?

……

……

……

Annexures

Annexure-1: Steps for equipment use

1. Salbutamol Metered Dose Inhaler (MDI)

1. Remove the cap from the inhaler and shake the inhaler well
2. Ask the patient to take a few deep breaths and then breathe out gently
3. Ask the patient to immediately place the mouth piece inside the mouth with lips forming a seal
4. Instruct the patient to press the inhaler and at the same time begin a slow, deep breath and continue to breathe slowly and deeply over 3 - 5 seconds. Hold the breath for 10 seconds and then resume normal breathing
5. Advise to repeat the above steps when more than one puff is prescribed
6. Advise to wait 1 minute between actuations (puff); this may improve penetration of the second actuation into lung airways
7. Ask the patient to recap the MDI

2. Metered Dose Inhaler with spacer

1. Remove the cap from the inhaler and shake the inhaler well
2. Attach the mask to the mouthpiece of the spacer
3. Insert the inhaler mouthpiece into the slot of the spacer (the inhaler should fit snugly and without difficulty)
4. Place the mask over the child's nose and mouth so that it makes a seal with the face
5. Press down on the inhaler canister to spray one puff of medicine into the spacer
6. Hold the mask in place and allow the child to breathe in and out slowly for five breaths
7. If child needs another dose, waits for 2-3 minutes, shake the inhaler and repeats steps 4 to 7

Note: Inhalation by MDI spacer needs four puffs at 2-3 minutes interval to get an equivalent dose for a single salbutamol nebulization.

3. Nebulizer

1. Wash hands thoroughly before using a nebulizer.
2. Makes sure the equipment is clean.
3. Measure the correct dose of medication to be administered and pour into the nebulizer chamber (cup) and add saline solution to make the volume to 3 ml.
4. If the medicine is in single-use vials, twist the top off the plastic vial and squeeze the contents into the nebulizer cup.
5. Connect the mouthpiece, or mask to the T-shaped elbow (face mask for smaller children and mouthpiece for older children)
6. Connect the nebulizer tubing to the port on the compressor. Turn the compressor on and check the nebulizer for misting
7. Hold the nebulizer in upright position to avoid spillage, while using mask ensure that it is fitting well. In older children ask the patient to keep the mouthpiece inside the mouth and close lips around it

8. Ask the patient to take slow deep breaths and if possible hold the breath for up to 10 seconds before exhaling. Occasionally, tap the side of the nebulizer to help the solution drop to where it can be misted.

4. Oxygen Cylinder

1. Ensure all the parts are available (oxygen cylinder, concentrator, Hood, nasal prongs, mask, nasal catheter etc.)
2. Ensure oxygen cylinder is secured on flat surface on a trolley.
3. Attach the regulator
4. Attach flow meter to the regulator to set the flow rate. Ensure the flow meter is vertical
5. Attach humidification bottle to the flow meter. Fill clean water up to the mark level on the bottle
6. Attach oxygen tube to the humidifier
7. Using a spanner/Key opens the cylinder. Set the desired flow rate on the flow meter. Ensure that there is no leak
8. Connect oxygen tube to the nasal prongs/ oxygen hood/ face mask/ or catheter / to deliver oxygen to the patient
9. Place the nasal prongs just inside the nostril and clear the nose if blocked
10. Secure the nasal prongs by taping along the cheek
11. Severely ill children with signs of obstructed breathing, central cyanosis, severe respiratory distress or signs of shock or who are unconscious should receive oxygen initially by nasal prongs at a standard flow rate (0.5 to 1 liter/min for neonates and 2-4 L/min for older children) or through an appropriately sized mask (>4 L /min) to reach a peripheral capillary oxygen saturation ≥94 %.
12. Monitoring of progress: When the child is stable and improving take the child off oxygen for 15 min, if the Spo2 reading in room air remain ≥ 90 %, discontinue oxygen, but check again 30 min later and every 3 hrs thereafter on the first day off oxygen to ensure that the child remains stable.

5. Oxygen Concentrator

1. Plug in the power cable. A green light indicating “power on” comes on.
2. Switch on the concentrator. Once the concentrator is switched on, a red/ yellow light will come up
3. Check the distilled water level in the humidifying jar and ensure that it is filled up to the marking
4. Adjust the oxygen flow as per need. The red/yellow light will be on till the desired concentration of oxygen is achieved
5. Place the nasal prongs inside the baby’s nostrils and fixes it with a tape, ensuring that it fits snugly.

6. Pulse-Oximeter

1. Connect to the mains
2. Switch on the machine
3. Set the alarm limits for heart rate 80-140 BPM
4. Set saturation alarm limits 90-97%
5. Connect the patient sensor to the pattient by wrapping it around the baby’s hand or foot.
6. Pulse oximeter starts detecting signal from the patient and displays heart rate and saturation in a few seconds
7. The values displayed may not be reliable in the presence of shock, cold peripheries, excessive movement, electrical interference and exposure of probe to bright ambient light
8. Values are reliable when the plethysmographic waveform or bar signals is good
9. Values are reliable when the display is constant and not blinking or repeatedly changing

Parts of the Tabletop Pulse Oximeter

- Display Panel
  - Numeric display
  - Graphic display
- Control buttons
  - Power/standby button
  - SpO_2 alarm setting button
  - HR alarm setting button
  - Set button (alarm, volume, trend)
  - Alarm silence button
- An electric cable
- An extension cable for attachment of the patient sensor
- A patient sensor which is to be connected to the extension cable

Picture 2: Tabletop Pulse Oximeter

Cleaning and disinfection

- Clean display panel with moist soft cloth
- Clean body with soft cloth dampened with soap water followed by moist soft cloth
- Clean reusable sensors with spirit after each patient use

Recommendation: Pulse Oximetry is recommended to determine the presence of hypoxaemia in children. When child has only repiratory distress, oxygen supllementation is recommended at SpO_2<90 %. Children presenting with other ETAT emergengy sign with or without respiratory distress should receive oxygen therapy if their SpO_2 is< 94%.

Trouble Shooting

Alarm/Display Message	Possible cause	Correction action
Check sensor	Motion, low perfusion, wrong position	Reposition relocate
Check probe	Probe not detected	Connect probe, check probe, connection
Pulse search	Pulse not detected Initialising Low perfusion/ movement/edema	Change sensor
Interference detected	Erratic Signal with electromagnetic waves in vicinity like TV, Mobile Phone	Remove Interference
Low Battery	Low internal battery	Connect to AC Power
Sensor failure	Broken cable, faulty photodiode sensor damage	Replace sensor
System failure	Internal component failed	Unit needs service/change
Ambient light	Excessive light or sensor	Relocate, cover with opaque paper/cloth

Do and Don'ts

- Inspect sensor site every 2 to 4 hours for any erythema
- Change sensor site every 4-6 hourly
- Do not apply sensor too tightly
- Do not apply probe to edematous or bruised

Side effects and dangers

- Failure of operation.
- Explosion hazards in presence of any flammable anesthetic mixture.
- Local reddening, blistering, skin discoloration, burn etc. because of the sensor placement.

Maintenance

- Clean the oximeter as necessary
- Recharge the battery as necessary
- Replace the fuses in power module as necessary
- Comprehensive/ Annual maintenance contract
- Do not knot, pull or apply traction to sensor cable or extension cable
- Handle carefully and gently

Annexure-2

Case recording forms

Management of the Sick Child Age 2 Months Up to 5 Years

Name : _____ Age: ____ Sex: M____ F____ Weight____kg Temperature: ____ °C Date

ASK: What are the child's problems? _____ Initial Visit? ___ Follow-up Visit? ____

ASSESS (Circl all signs present) **CLASSIFY**

CHECK FOR GENERAL DANGER SIGNS
NOT ABLE TO DRINK OR BREASTFEED LETHARIGIC OR UNCONSCIOUS
VOMITS EVERYTHING
CONVULSIONS CONVULSING NOW

General Danger sign present?
Yes___ No ___
Remember to use danger sign
When Selecting Classification

DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING? Yes____ No____

- For how long? _____ Days
- Count the breaths in one minute
  _____ breaths per minute. Fast breathings?
- Look for check indrawing.
- Look and listen for stridor.
- Look and listen for wheezing.

DOES THE CHILD HAVE DIARRHOEA? Yes____ No____

- For how long? _____ Days
- Is there blood in the stool?
- Look at the child's general condition. Is the child:
  Lethargic or unconscious?
  Restless and irritable
- Look for sunken eyes.
- Offer the child fluid. Is the child:
  Not able to drink or drinking poorly?
  Drinking eagerly, thirsty?
- Pinch the skin of the abdomen. Does it go back:
  Very slowly (longer than 2 seconds)?
  Slowly?

DOES THE CHILD HAVE FEVER? (by history feels hot/ temperature 37.5°C or above) Yes____ No____

PF predominant area: Yes No
- Fever for how long? ____Days
- If more than 7 days, has fever been present every day?
- Has the child had measles within the last 3 months
- Look or feel for stiff neck.
- Look for runny nose.
  Look for signs of MEASLES:
- Generalized rash
- One of these: cough, runny nose, or red eyes

Test POSITIVE? P. falciparum P. vivax NEGATIVE?

.....

If the child has measles now or within the last 3 months?
- Look for mouth ulcers
  If Yes, are they deep and extensive
- Look for pus draining from the eye.
- Look for clouding of the comea.

DOES THE CHILD HAVE AN EAR PROBLEM Yes____ No____

- Is there ear pain?
- Is there ear discharge?
  If yes, for how long? ___ Days
- Look for pus draining from the ear.
- Feel for tender swelling behind the ear.

THEN CHECK FOR ACUTE MALNUTRITION
- Look for oedema of both feet.
- Determine WFH/L z-score:
  Less than-3? Between -3 and -2? -2 or more?
- Child 6 months of older measure MUAC ____ mm

_____

THEN CHECK FOR ANEMIA
- Look for palmar pallor.
  Severe palmar pallor? Some palmar pallor? No pallor?

CHECK THE CHILD'S IMMUNIZATION, PROPHYLACTIC VITAMIN A & IRON-FOLIC ACID STATUS

___ BCG	_____ HepB0	_____ Penta1	_____ Penta2	_____ Penta3	_____ MEASLES/MR	_____ DPT B-1 +OPV
_____ OPV 0	_____ OPV 1	_____ OPV 2	_____ OPV 3 +IPV	_____ VITAMIN A	_____ MEASLES/MR2	_____ DPTB—2
_____ PCV1	_____ PCV2	_____ PCV3	_____ Rota- 1	_____ Rota- 2	_____ Rota- 3	_____ IFA

Return for next immunization or vitamin A or IFA supplement on:

_____ (Date)

ASSESS CHILD'S FEEDING If child has MODERATE ACUTE MALNUTRITION or ANEMIA or is less than 2 years old
- Do you breastfeed your child? Yes___ No___
  If yes, how many times in 24 hours? ___ times. Do you breastfeed during the night? Yes___ No ___
- Does the child take any other food or fluids? Yes___ No___
  If Yes, what foods or fluids? _____
  _____
  How many times per day? ___ times, What do you use to feed the child and how? _____
  How large are the servings? _____
  Does the child receive his own serving? _____ Who feeds the child and how? _____

TREAT

Remember to refer any child who has a general danger sign and no other severe classification.

Return for follow up in: _____

Advise mother when to return immediately.

Give any immunizations, Vitamin A, Deworming or IFA supplements needed today: _____

Counsel the mother about her own health.

Feeding /practices to support child's development

Advice_____

MANAGEMENT OF THE SICK YOUNG INFANT AGE UP TO 2 MONTHS

Name : _____ Age: ____ Sex: M____ F____ Weight____kg Temperature: ____°C Date
ASK: What are the infant's problems? _____ Initial Visit? ___ Follow-up Visit? ____
ASSESS (Circl all signs present) CLASSIFY

CHECK FOR POSSIBLE BACTERIAL INFECTION/JAUNDICE

- Is the infant having difficulty in feeding?
- Has the infant had convulsions?
- Count the breaths in one minute_____ breaths per minute. Repeat if elevated _____ Fast breathing?
- Look for severe chest indrawing.
- Look at the umbilicus. Is it red or draining pus?
- Look for skin pustules.
- Measure axillary temperature (if not possible, feel for fever or low body temperature):
- 37.5°C or more (or feels hot)?
- Less than 35.5°C?
- Less than 36.5°C but above 35.4°C (or feels cold to touch)?
- Look at young infant's movements. Movement only when stimulated or no movement at all.
- Look for jaundice. Are the palms and soles yellow?

DOES THE YOUNG INFANT HAVE DIARRHOEA? Yes____ No____

- Look at the young infant's general condition. Is the infant:
  - Lethargic or unconscious?
  - Restless and irritable?
- Look for sunken eyes.
- Pinch the skin of the abdomen. Does it go back:
  - Very slowly (longer than 2 seconds)?
  - Slowly

THEN CHECK FOR FEEDING PROBLEM & VERY LOW EIGHT

- Is there any difficulty feeding? Yes___ No___
- Is the infant breastfed? Yes___ No___

If Yes, how many times in 24 hours? ____ times

- Does the infant usually receive any other foods or drinks? Yes___ No___

If Yes, how often?

- What do you use to feed the infant?

- Determine weight Very Low weight (<1800 gm)___ Low weight (1800-2500 gm)___ Not low weight (>2500 gm)___

If the infant has no indication to refer urgently to hospital:

.....

ASSESS BREASTFEEDING:

- Has the infant breastfed in the previous hour?

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

- Is the infant able to attach? To check attachment, look for.
- Chin touching breast Yes___ No___
- Mouth wide open Yes___ No___
- Lower lip turned outward Yes___ No___
- More areola above than below the mouth Yes___ No___

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

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

no suckling at all not suckling effectively sucking effectively

- Look for ulcers or white patches in the mouth (thrush).
- Does the mother have pain while breastfeeding? If yes, then look for
  - Flat or inverted nipples, or sore nipples
  - Engorged breasts or breast abscess

_____

CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS

_____	_____	_____	_____	_____
BCG	HepB0	Penta1	Rota Virus	PCV
_____	_____			
OPV 0	OPV 1			

ASSESS OTHER PROBLEMS:

Circle immunizations needed today.
Return for next immunization on:

(Date)

TREAT

Return for follow up in:

_____

Advise mother when to return immediately.

Give any immunizations needed today:

_____

Counsel the mother about her own health.

Annexure-3: Dosages of drugs used for ARI

Dosage	Dosage	Form	Dose according to body weight (kg)			
			3-<6 kg	6-<10	10-<15	15-<20
Aminophylline for asthma	Loading dose: IV: 5-6 mg/kg (max. 300 mg) slowly over 20-60 minutes	250 mg/10 ml vial	1 ml	1.5 ml	2.5 ml	3.5 ml
	Maintenance dose: IV: 5 mg/kg up to every 6 hours OR by continuous infusion 0.9 mg/kg/hour		1 ml Calculate EXACT dose	1.5 ml	2.5 ml	3.5 ml
Amoxicillin for pneumonia	25 mg/kg two times a day Or 15mg/kg/dose thrice a day	250 mg tablet Syrup (containing 125 mg/5 ml)	½ 5 ml	1 10 ml	1 ½ 15 ml	2 -
Ampicillin	IM/IV: 50 mg/kg every 6 hours	Vial of 500 mg mixed with 2.1 ml sterile water to give 500 mg/2.5 ml	1 ml	2 ml	3 ml	5 ml
Cefotaxime	IM/IV:50 mg/kg every 6 hours	Vial of 500 mg mixed with 2 ml sterile water OR vial of 1 g mixed with 4 ml sterile water OR vial of 2 g mixed with 8 ml sterile water	0.8 ml	1.5 ml	2.5 ml	3.5 ml
Ceftriaxone	IM/IV:50 mg/kg every 12 hours (max single dose 4 g) OR IM/IV:100 mg/kg once daily		2 ml 2 ml	4 ml 8 ml	6 ml 12 ml	9 ml 18 ml

Dosage	Dosage	Form	Dose according to body weight (kg)			
			3-<6 kg	6-<10	10-<15	15-<20
Cloxacillin	IV:25-50 mg/kg every 6 hours IM	Vial of 500 mg mixed with 8 ml sterile water to give 500 mg/10 mls Vial of 250 mg mixed with 1.3 ml sterile water to give 250 mg/1.5 ml	2-(4) ml 0.6 (1.2) ml	4-(8) ml 1 (2) ml	6-(12) ml 1.8 (3.6) ml	8-(16) ml 2.5 (5) ml
Cotrimoxazole* (trimethoprim-sulfamethoxazole TMP-SMX)	4 mg trimethoprim /kg and 20 mg	Oral: paediatric tablet (20mg TMP +100 mg SMX)	1	2	3	3
	sulfamethoxazole/ kg two times per day	Oral: Syrup (40 TMP+200 mg SMX per 5 ml)	2 ml	3.5	6 ml	8.5 ml
	Note: For interstitial pneumonia in children with HIV give 8 mg/kg TMP and 40 mg SMX/ kg 3 times a day for 3 weeks.					
Dexamethasone for viral croup	Oral: 0.6 mg/kg single dose	0.5 mg tablets IM:5 mg/ml	0.5 ml	0.9 ml	1.4 ml	2 ml
Epinephrine (adrenaline) for wheeze For severe viral croup For anaphylaxis	0.01 ml/kg (up to a maximum of 0.3 ml) of 1:10000 solution (or 0.1 ml/kg of 1:10000 solution)given subcutaneously with a 1 ml syringe A trial of 2 ml of 1:10000 nebulized solution 0.01 ml/ kg of 1:1000 solution given subcutaneously with a 1 ml syringe		- -	2 ml 2 ml	2 ml 2 ml	2 ml 2 ml

Dosage	Dosage	Form	Dose according to body weight (kg)			
			3-<6 kg	6-<10	10-<15	15-<20
Erythromycin (estolate)	Oral: 12.5 mg/kg 4 times for 3 days	250 mg tablet	¼	½	1	1
Gentamicin	7.5 mg/kg once per day	IM/IV: vial containing 20 mg (2 ml at 10 mg/ml) undiluted IM/IV: vial containing mg (2ml at 40 mg/ml) mixed with 6 ml sterile water IM/IV: vial containing 80 mg (2 ml at 40 mg/ml undiluted	2.25-3.75 ml 2.25-3.75 ml 0.5-0.9 ml	4.5-6.75 ml 2.25-3.75 ml 0.5-0.9 ml	7.5-10.5 ml 2.25-3.75 ml 2.8-3.5 ml	- -
Benzylpenicillin (penicillinG) general dosage	IV: 50000 units/ kg e very 6 hours	Vial of 600 mg mixed with 9.6 ml sterile water to give 1000000 units/10 ml Vial of 600 mg (1000000 units) Mixed with 1.6 ml sterile water to give 1,000,000 units/2 ml	2 ml 0.4 ml	3 . 7 5 ml 0.75 ml	6 ml 1.2 ml	8.5 ml 1.7 ml
Salbutamol	Oral: 1 mg per dose <1yr 2 mg per dose 1-4 yrs Acute episode 6-8 hrly Inhaler with spacer: 2 doses contains 200 µg Nebulizer: 2.5 mg/dose	Syrup: 2 mg/5 ml Tablets:2 mg Tablets: 4mg Metered dose inhaler containing 200 doses 5 mg/ml solution 2.5 mg in 2.5 ml single dose units	2.5 ml ½ ½	2.5 ml ½ ½	5 ml 1 ½	5 ml 1 ½

Annexure-4: Mother and Child Protection Card

State logo

सत्यमेव जयते

MINISTRY OF HEALTH AND FAMILY WELFARE
MINISTRY OF WOMEN AND CHILD DEVELOPMENT

MOTHER AND CHILD PROTECTION CARD (MCP CARD)

Be Wise! Get your child fully immunized

POSHAN Abhiyaan

Keep this card safe and carry along with you during every visit to Village Health Sanitation and Nutrition Day, Anganwadi Centre, Health Centre and Hospital

2018 Version

Prevention of Pneumonia

Keep children covered in warm woollen clothes during winters and do not let them walk barefoot

Do not keep new born without clothes

Use LPG gas stove for cooking to avoid smoke in the house

Identification of Pneumonia

Coughing gets worse | Fast breathing | Chest indrawing | Fever

Pneumonia can be identified by breath counts

For less than 2 month baby when breath count is more than 60 per minute	For 2 month to 1 year baby when breath count is more than 50 per minute	For 1 year to 5 year child when breath count is more than 40 per minute

Notes