

# OUTPATIENT MANAGEMENT OF PNEUMONIA IN CHILDREN (2-59 MONTHS)

## Antibiotic therapy

GIVE ORAL AMOXICILLIN FOR 5 DAYS

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 kg 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	1 ½
3 years up to 5 years (14 kg to <20 kg)	—	2

## Home care for cough and cold

- An infant below 6 months who is exclusively breast fed should not be given any home remedy.
- Breastfeeding should be continued.
- Give the child a safe homemade soothing cough remedy if the child is older than 6 months of age, like honey, tulsi, ginger, herbal concoctions and other safe local home remedies. Avoid cough syrups.
- 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.
- The family should also be advised on how to administer medicines at home.

➤ Look for signs of illness when to return:

- **Child becomes sicker**
- **Not able to drink or breastfeed**
- **Fast breathing**
- **Difficulty breathing**
- **Develops a fever**

## Follow up in 2 days

If any of these signs appear, the child should be immediately taken to ASHA or ANM or nearest health facility



Paste in casualty, emergency & paediatric ward.

# INPATIENT MANAGEMENT OF SEVERE PNEUMONIA IN CHILDREN (2-59 MONTHS)

Severe Pneumonia is defined as cough or difficulty in breathing in a child with at least one of the following conditions:

- Central cyanosis or Oxygen saturation < 90%
- Severe respiratory distress (Laboured or very fast breathing {Respiratory Rate >70 per minute} or severe lower chest indrawing or head nodding or stridor or grunting)
- Signs of Pneumonia with general signs of danger (inability to breastfeed or drink, lethargy or reduced level of consciousness or convulsions)

Antibiotic	Each Dose	Frequency	Route	Duration
1a. Inj. Ampicillin or	50 mg/kg	6 hrly	IV, IM	7-10 days
1b. Inj. Benzyl penicillin	50,000 units/kg	6 hrly	IV, IM	7-10 days
2. Add Inj. Gentamicin	7.5 mg/kg	24 hrly	IV, IM	7-10 days

- Give Cloxacillin or Amoxicillin + Clavulanic acid if Staphylococcal infection is suspected.
- Give Ceftriaxone with Vancomycin in case of septic shock.

## Oxygen therapy

- Give oxygen to all children with oxygen saturation <90% (<94% if they also have other emergency signs like shock etc).
- Use nasal prongs as the preferred method of oxygen delivery; if not available, a nasal or nasopharyngeal catheter may be used.
- Use a pulse oximeter to guide oxygen therapy (keep oxygen saturation > 90%).

## Supportive care

- Provide IV maintenance fluids if the child cannot accept oral feeds. Stop IV fluids gradually when the child begins accepting oral feed satisfactorily
- If child has a fever (38.5°C), then give Paracetamol.
- If wheezing occurs, then give rapid acting bronchodilators.

In case where IPD is not possible, give pre-referral dose as per the table above

# INPATIENT MANAGEMENT OF YOUNG INFANTS (0-2 MONTHS) WITH PNEUMONIA/PSBI\*

Admit young infant to hospital

Antibiotic therapy

Antibiotic	Each Dose (mg/kg/dose)	Frequency		Route	Duration (Days)
		Age <7 days	Age >7 days		
1. Inj. Ampicillin and	50	12 hrly	8 hrly	IV, IM	7-10
2a. Inj. Gentamicin or	5	24 hrly	24 hrly	IV, IM	7-10
2b. Inj. Amikacin	15	24 hrly	24 hrly	IV, IM	7-10

- Inj. Ampicillin and Gentamicin is used as initial treatment.
- Inj. Cefotaxime 50 mg/kg IV 8 hourly and Inj. Gentamicin is given for 2-3 weeks if meningitis suspected.
- The main protocol of IPD management of PSBI is divided into management of PSBI with meningitis and that without meningitis.
- In case of suspected staphylococcal infection, Inj. Cloxacillin 50mg/kg every 8 hours is to be added to the regime.
- Oxygen support should be provided where required (presence of cyanosis, grunting, severe respiratory distress i.e. RR > 70/bpm, SpO<sub>2</sub> < 90%).
- The infant should be kept warm.
- Breastfeeding should be continued to prevent hypoglycemia. If the infant is unable to suckle, he/she should be given expressed breast milk. Infants on oxygen should be given intravenous fluids until the infant is able to feed orally.

# 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.

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.

#### ANM

1. Give pre-referral dose Inj. Gentamicin and Oral Amoxicillin.

REFERRAL TO THE HEALTH FACILITY

### 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 reused 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.

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

