

Essential Newborn Care

Learning Objectives

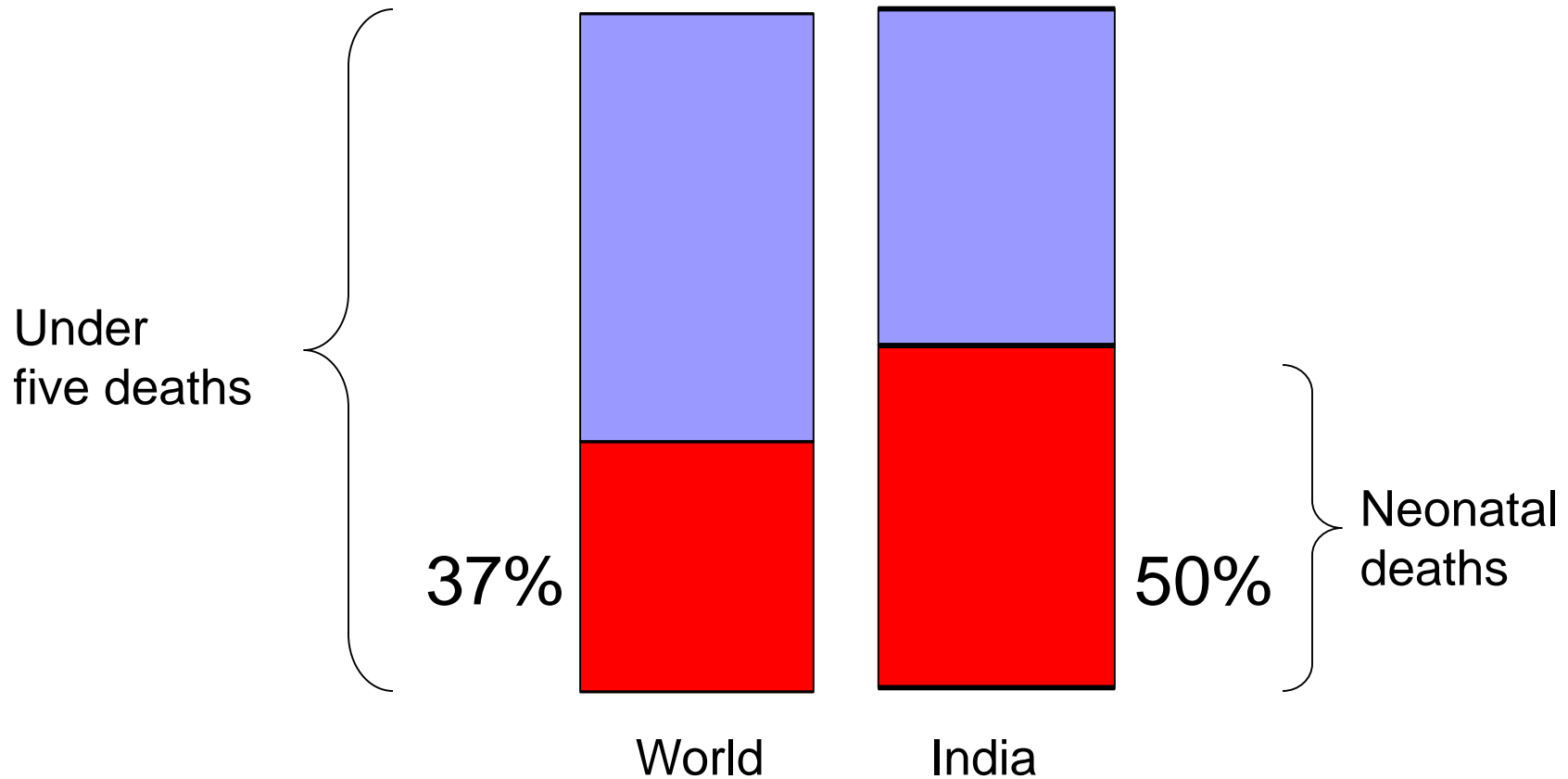
- **Definition of ENC**
- **Components of ENC**
- **How to provide ENC**
- **Algorithm of neonatal resuscitation**
- **Prevention of Hypothermia in neonates**

ENC: Definition

- Majority of babies born healthy and at term
- Care during first hours, days and weeks of life determine whether they remain healthy
- Basic care to support survival and wellbeing is called ENC
- It includes immediate care at birth, care during the first day and up to 28 days

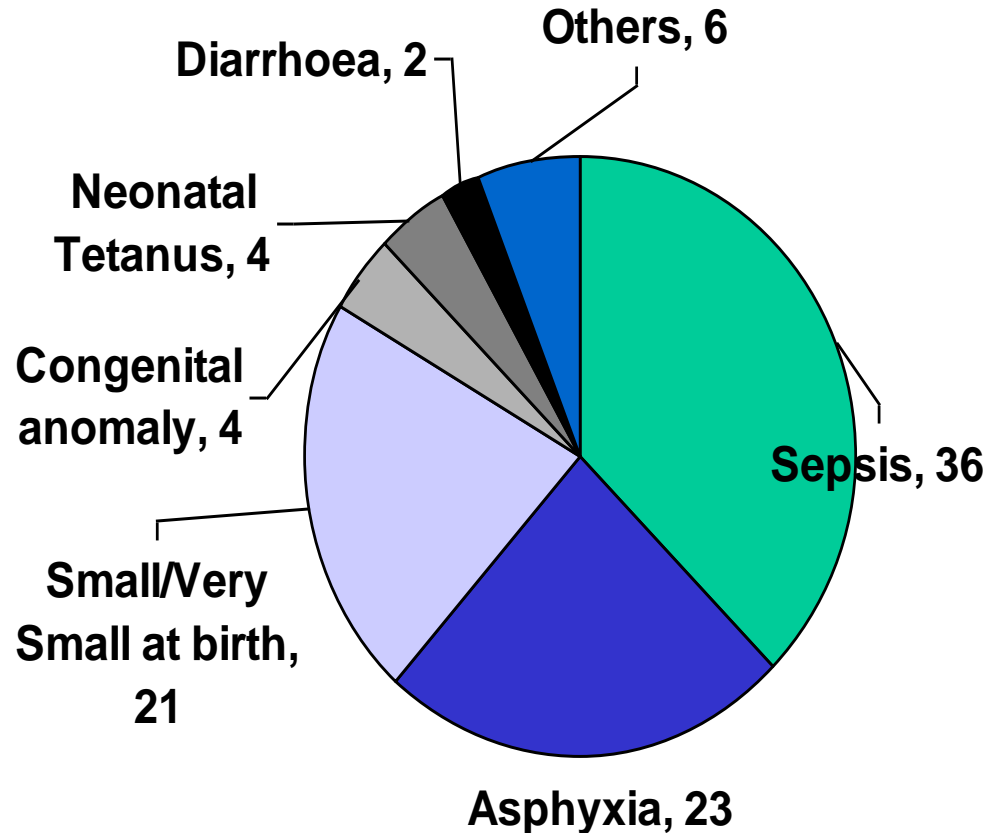
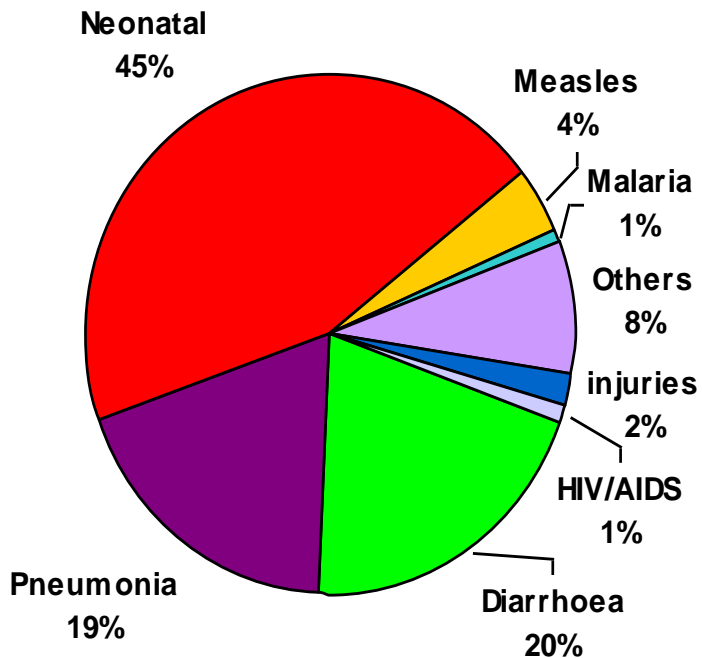
Neonatal Deaths

Neonatal deaths are a major contributing factor to Under 5 mortality in India



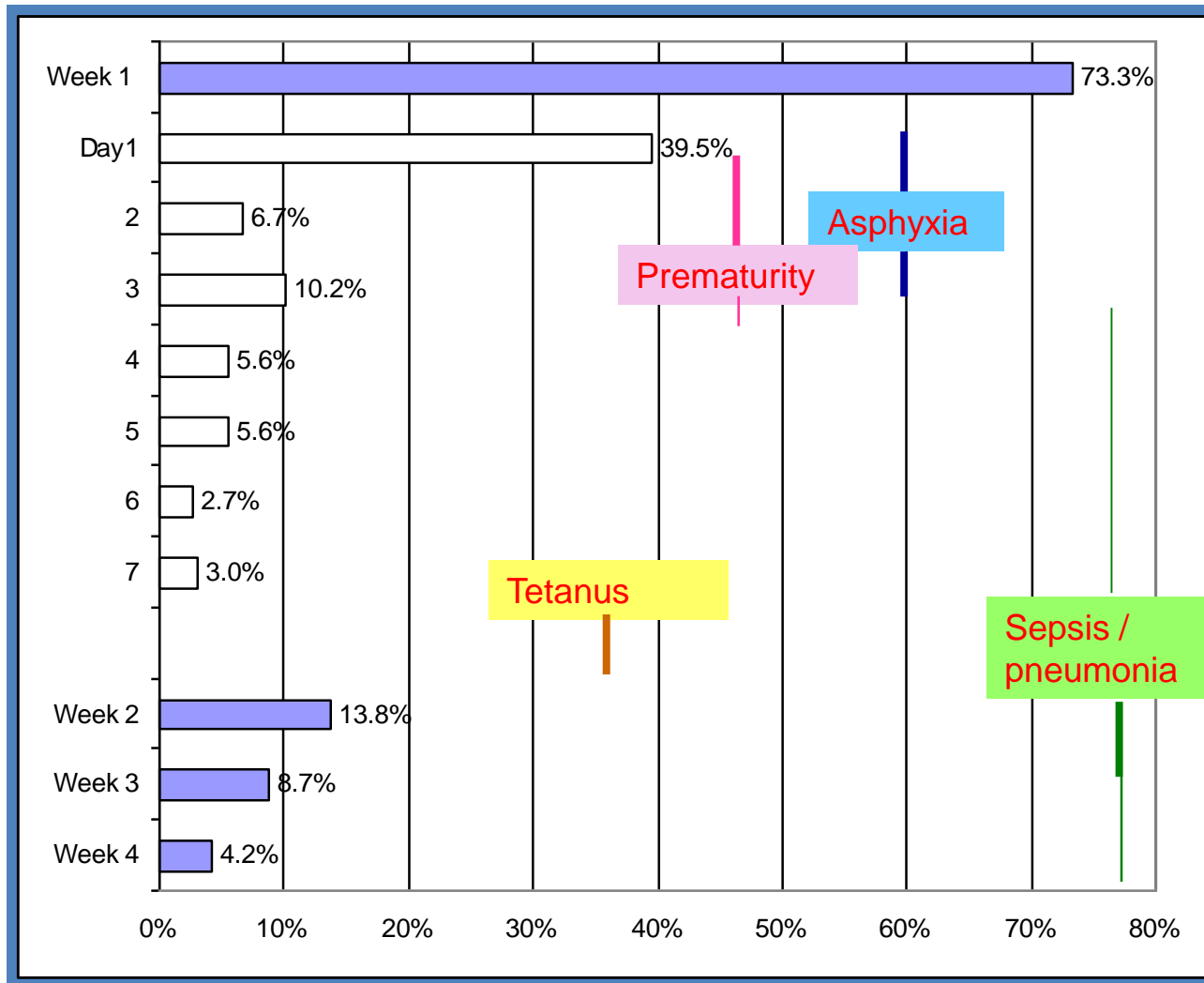
Source:
PFC 2007 & SRS

Major causes of Under 5 mortality



Causes of Neonatal
Deaths

India: When and why do neonates die ?



Day	U5 Child deaths
1st day	20%
By 3rd day	25%
By 7th day	37%
By 28th day	50%

Four basic needs of ALL newborns

- To breath normally
- To be protected
- To be warm
- To be fed

Essential Newborn Care Interventions

- Clean childbirth and cord care
 - *Prevent newborn infection*
- Thermal protection
 - *Prevent & manage newborn hypo/hyperthermia*
- Early and exclusive breastfeeding
 - *Started within 1 hour after childbirth*
- Initiation of breathing and resuscitation
 - *Early asphyxia identification and management*

Universal Precautions & cleanliness

- Wash hands.
- Wear gloves.
- Protect yourself from blood and other body fluids during deliveries.
- Practice safe sharps disposal.
- Practice safe waste disposal.
- Deal with contaminated laundry.
- Sterilize and clean contaminated equipment.



PREPARING FOR BIRTH

WASH YOUR HANDS

ESSENTIAL

- A draught free, warm room - temperature 25⁰C +
- A clean, dry and warm delivery surface
- A radiant heater
- Two clean, warm towels/cloths: to dry, wrap or cover the newborn baby.
- A folded piece of cloth
- A suction device
- A newborn size self inflating bag, masks
- Laryngoscope
- Oxygen
- Disposables
- Medications
- **A CLOCK**

Care of the baby at the time of birth

(Until around 1 hour after birth)

- Provide **routine care** at birth for all newborns
- Identify and manage newborns who may need **special care**

Routine Care

- Call out **time** of birth
- **Place baby on mother's abdomen**
- **Dry** baby with warm clean sheet
- Wipe mouth and nose with clean cloth
- **Assess baby's breathing while drying**
- Clamp cord after 1-3 min, cut with sterile instrument, put sterile tie
- Put identity label on the baby

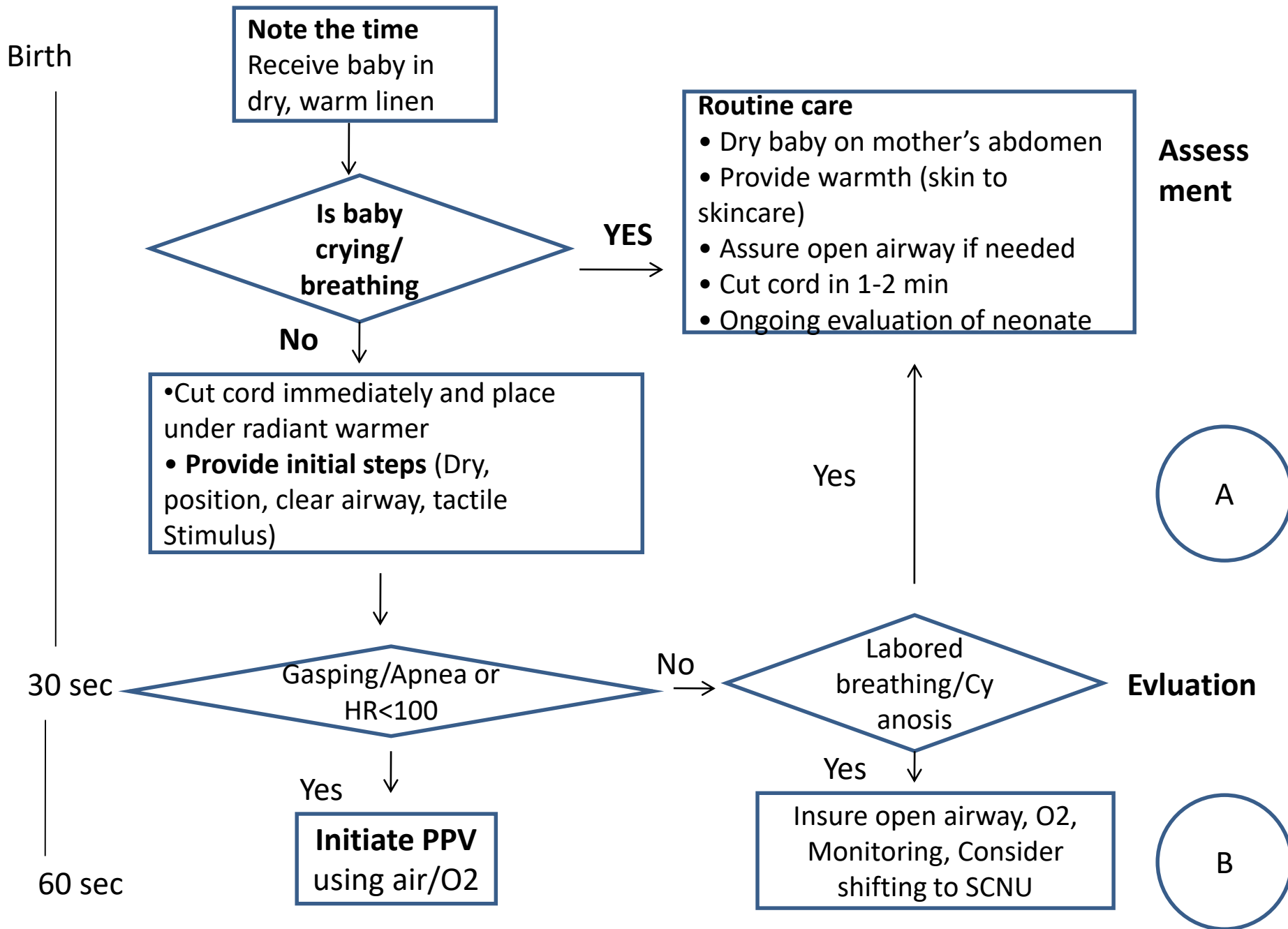
Routine Care

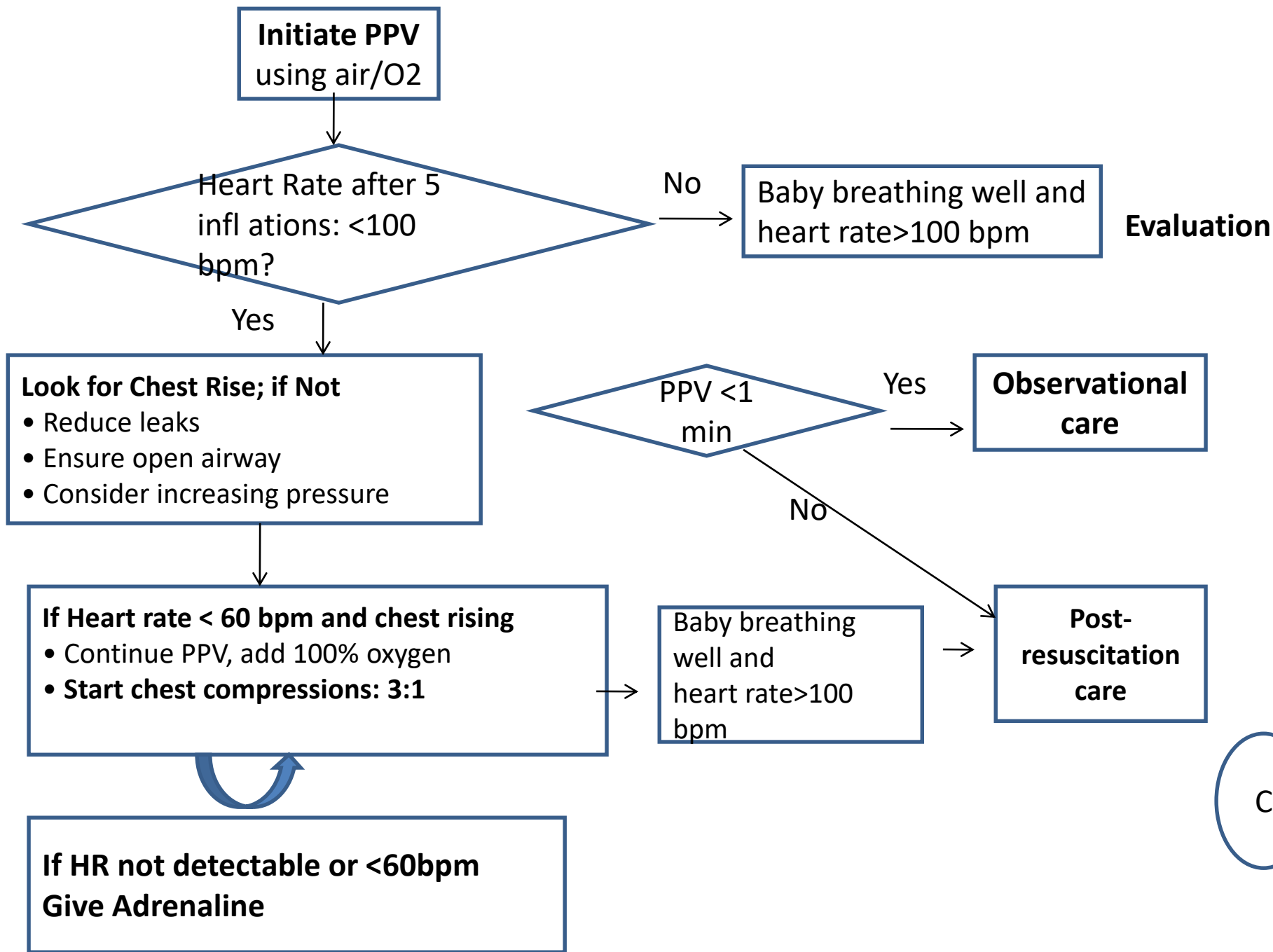
- Examine for malformations/ birth injury
- Initiate breast feeding within 1 hour
- Record baby's weight
- Give Inj Vit K 1mg IM (0.5 mg for preterm)
- Cover baby's head with cloth.
- Cover mother and baby with warm cloth

Resuscitation

- All babies must be assessed for need of resuscitation at birth
- At least 1 person skilled in providing resuscitation must be present
- Ventilation must start within 1 minute of birth
- First golden minute

Resuscitation Flow Diagram





Where do babies go from delivery room?

A) Refer if:

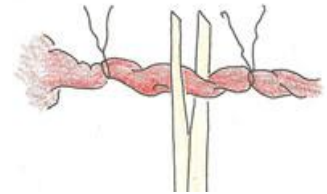
- Birth weight <1500 gms, <34 weeks
- Major congenital malformation
- Severe birth injury
- Respiratory distress
- PPV >1 minutes or needing chest compression or drugs

B) Observational care:

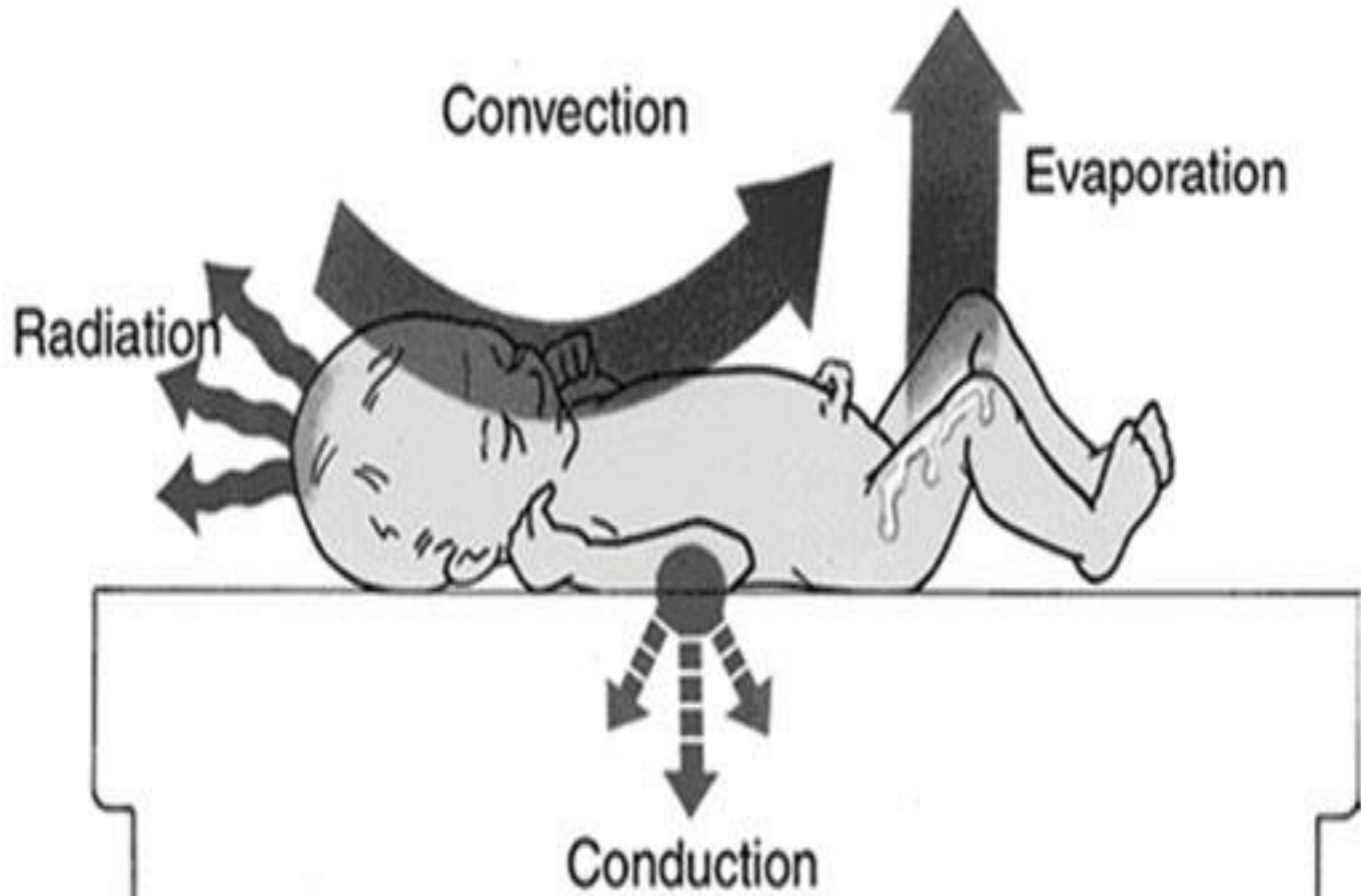
- Birth weight 1500-1800 gm
- Babies needing IPPV <1 minutes and vigorous

Immediate cord care

- **Clamp** and cut cord with a sterile instrument.
- Tie the cord between 2 to 3 cms from the base and cut the remaining cord.
- Observe for oozing blood.
- DO NOT apply any substance to stump.
- DO NOT bind or bandage stump.
- Leave stump uncovered.



Newborn can lose heat in four ways



Keeping a newborn baby warm after delivery

Method of heat loss	Prevention
Evaporation: Wet baby	Immediately after birth dry baby with a clean, warm, dry cloth
Conduction: Cold surface e.g weighing scale etc.	Put the baby on the mother's abdomen or on a warm surface
Convection: Cold draught	Provide a warm, draught free room for delivery at $\geq 25^{\circ}\text{C}$
Radiation: Cold metallic surroundings	Keep the room warm

Kangaroo mother care



KMC

- Skin to skin contact, any family member can do
- Not less than 1 hour at a time
- useful for LBW
- Provide warmth, promote BF,
- Protects from infection
- Emotional bonding
- Physiological stability, reduces apnea
- Multimodal stimulation

Warm chain

- Warm delivery room
- Immediate drying
- Skin to skin contact at birth
- Breastfeeding
- Bathing and weighing postponed
- Appropriate clothing
- Mother and baby together
- Warm transportation

Breastfeeding

- Help mother to initiate breastfeeding within first hour of birth
- Help mother at first feed
- Ensure
 - *Good position*
 - *Good attachment*
 - *Effective suckling*

CARE OF NEWBORN IN POSTNATAL WARD

Postnatal environment

- Kept warm with no draughts from open doors or windows. Temperature of 25 C required.
- Mother and her baby kept together in same bed (rooming-in)
- Helps to form bonding, can respond quickly when her baby wants to feed, reduces breastfeeding difficulties

Ask the mother

- Do you or baby have any problems?
- Has infant passed stools, urine?
- Have you started breast feeding infant?
- Is there any difficulty in feeding infant?
- Do you have any pain while breast feeding?
- Have you given any other foods or drinks to infant? If yes, what and how?

Examine the baby

- Count breaths in one minute
- Look for severe chest indrawing/ retraction
- Look and listen for grunting
- Look at umbilicus. Is it red or draining pus?
- Look for skin pustules. Are there 10 or more pustules or a big boil?

Examine the baby

- Measure axillary temperature (if not possible, feel for fever or low body temperature)
- See if young infant is lethargic
- Look for jaundice. Are the face, abdomen or soles yellow?
- Look for malformations

Assess Breastfeeding

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

- Is the infant able to attach?

To check attachment, look for:

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

Assess Breastfeeding (contd)

- If not well attached, help mother to position so that baby attaches well.
- Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing)?
- If not sucking well, then look for:
 - *ulcers or white patches in mouth (thrush)*
- If there is difficulty or pain while feeding, then look for
 - *Engorged breasts or breast abscess*
 - *Flat or inverted, or sore nipples*

Look for Normal Phenomena

- milia, epstein pearls, mongolian spots, enlarged breasts, capillary nevi etc.
- Transitional stools
- Vaginal white discharge/bleeding in female babies
- Red rashes on skin on 2-3 days of life.
- Weight loss of 6-8% (10-12% in preterms) in first few days of life

Cord Care

- Umbilical cord is important portal of entry for pathogenic organism.
- Instruct mother not to apply anything on cord and keep it dry.
- Umbilical stump must be inspected after 2-4 hours of clamping.
- Bleeding may occur at this time due to shrinkage of cord and loosening of ligature

Skin and Eye Care

- Babies are not bathed routinely in hospital to prevent complications like hypothermia and infection,
- May be sponged with lukewarm water.
- No routine eye care is required

Counsel the mother

- Keep baby warm
- Breastfeed frequently and exclusively
- Advise mother to wash hands with soap and water after using toilet and after cleaning bottom of baby.
- Advise mother regarding danger signs and care seeking.

Immunization

- The baby should receive
 - BCG
 - OPV-0
 - Hepatitis B (HB-1) - if included in immunization schedule

Follow-up

- Schedule postnatal visit within first week on day 3 and day 7 of delivery. Also visit on day 14, 21 and 28 if baby is LBW.
- Assess for growth and development and signs of illnesses
- Health education of parents done
- Assessed at least once every month for 3 months and subsequently 3 monthly till 1 year.

SUMMARY

- Basic care to support survival & wellbeing is ENC
- Ventilation must be initiated within 1st min of life
- Help to initiate breast feeding within 1st hr of birth
- Identify and refer neonates requiring special care
- Take all precautions to prevent infection, hypothermia and counsel mother for the same
- Counsel mother for Danger signs, immunization & follow-up

Questions

Q. 1-Which of the following is the most common cause of neonatal death in India:

- (A) Birth asphyxia
- (B) Sepsis
- (C) Low birth weight
- (D) Congenital anomaly

Q2. After birth, how long it can take to achieve an oxygen saturation of 90% in normal term newborn

- (A) 1 minute
- (B) 2 minutes
- (C) 5 minutes
- (D) 10 minutes

Q3. As per neonatal resuscitation program India, need for resuscitation at birth is decided by assessing following risk factor/s at birth-

- (A) Gestational maturity
- (B) Breathing
- (C) Muscle tone
- (D) All of the above

Q4. All of the following statements are true about kangaroo mother care except

- (A) Especially useful for low birth weight babies
- (B) Risk of apnea is increased
- (C) Decreased risk of infection
- (D) Can be practiced by other family members

Q5. Most consistent clinical finding of early onset neonatal sepsis is?

- (A) Apnea
- (B) Tachypnea
- (C) Fever
- (D) Seizure

Q6. Presence of all of the following features suggest good attachment of infant to mother's breast ***except***:

A. Mouth widely open

B. Lower lip curled out

C. Chin touches the breast

D. Lower areola visible more than upper

Answer

- Q1: B
- Q2: D
- Q3: B
- Q4: B
- Q5: B
- Q6: D