

NEONATAL CARE



Phases of Infancy

- Perinatal Period – 28 wk- 7 days
- Early Neonatal Period- Birth- 7 days
- Late Neonatal Period- 7 days – 28 days
- Post Neonatal Period- 28 days – 1 year

Terms

- Pre- Term - < 37 weeks
- Term – 37 – 42 weeks
- Post- Term - > 42 weeks

- LBW - < 2500gm
- VLBW - < 1500gm
- ELBW - < 1000gm

Indicators

1. Perinatal Mortality Rate (PMR) –
 - Deaths between 28 wks upto 7 days of life per 1000 live births.
 - Wt > 1000 gm, CRL > 35 cm
 - Ideally should include all births > 1000 gm
 - Sensitive indicator of essential Maternal and New born care.
 - Factors responsible for Stillbirths and early neonatal deaths are often similar.

Infant Mortality Rate

- No of Infant deaths in a given year to total no. of live births, expressed in per 1000.
- It measures health status and level of living of community.
- One of the parameter for calculating PQLI.
- Deaths are due to specific causes different from those in adults.

Trends in India

Indicator	1994	2000	2006
IMR	74	68	57/ 44 (2012)
NMR	48	44	37/32 (2010)
PMR	26	23	22
SBR	9	8	9

- Deaths in 1st year of life accounts for 18.7 % of total deaths
- Of these > 60% occurs in 1st month of life.
- Of this 40% of neonatal deaths occur in 1st week of life.
- 50% of these in first 48 hours.
- The above fact underlies the importance of early neonatal care in child survival.

Causes of Infant Mortality

Neonatal	Post Neonatal
LBW & prematurity	ADD
Birth Injury	ARI
Sepsis	Other Infectious diseases (eg.- Measels, Malaria)
Congenital Anomalies	Malnutrition
Hemolytic diseases	Congenital Anomalies
Conditions of Placenta and cord	Accidents
ADDs	
ARI	

Prevention

Direct	Indirect
Safe & clean delivery	Family Planning
Essential New born care	Nutritional status of mother
Infection control measures	Education of mother (women empowerment)
EBF	ANC
Early diagnosis & management	Growth monitoring of child
Special care for LBW babies	Prevention of Malnutrition
ORT for ADDs	Vit. A prophylaxis
Antibiotics for ARIs	Improved Sanitation/ Safe water
Immunization	Access to primary health care
	Socio-economic development

Essential Newborn Care

- Cardiopulmonary maintenance
- Body temperature maintenance
- Avoidance of Infections
- Establishment of a satisfactory feeding regimen
- Early detection and Rx of any abnormalities or infections

- Immediate care
- Neonatal examination
- Screening
- Measurements

IMMEDIATE CARE

- Clearing the airway
- APGAR score
- Maintenance of body temperature
- Care against infection
 - Care of cord
 - Care of eyes
 - Care of skin
- Breast feeding

Clearing the airway

- Positioning : head low
- Gentle suction
- If natural breathing fails :
 - Resuscitation and active intervention



APGAR SCORE

The Apgar score rates:

Activity

Pulse

Grimace

Apppearance

Respiration



 ADAM.



Apgar score

Sign	0	1	2
Muscle tone (A)	Flaccid	Some flexion of extremities	Active movements
Heart rate (P)	Absent	<100	>100
Reflexes (G)	No response	Grimace	Cry
Colour (A)	Blue, pale	Body pink, extremities blue	Completely pink
Respiratory effort (R)	Absent	Slow irregular	Good crying
Total	Severe depression(0-3)	Mild depression (4-6)	No depression (7-10)

Avoidance of infection

- Care of the cord
 - Prevent tetanus
 - Prevent Anemia



- Care of eyes
 - Wipe with sterile swab
 - Silver nitrate/
tetracycline

Care of Skin

- First bath with soap and water
- By nursing staff
- ? Delay by 12-24 hrs



Maintenance of body temperature

- Little thermal control
 lesser in preterm and
 LBW babies
- Dry and wrap in a clean
dry cloth
- Skin to skin contact with
mother



*“Kangaroo care method” (strategy for
LBW babies in IMNCI)*

Breast feeding

- Within an hour
- Whenever the baby wants
- Avoid supplementary feeds and bottle feeding
- Breast milk
 - Creates bonding
 - Highly nutritive
 - Anti infective



NEONATAL EXAMINATIONS

- First examination
 - Rule out injury
 - Detect malformations
- Second examination
 - Within 24 hours
 - Systematic head to foot examination



• Infections

- Neonatal tetanus
- Cong. Syphilis
- Newborn with HBV+ mother
- Newborn with HIV+ mother
 - PPTCT
 - ART (Zidovudine) to mother during pregnancy, child birth and to child
 - No Breast feeding..??
 - Elective LSCS
 - Reassess baby after 6 months

MEASUREMENTS

- Birth weight
 - Within 1 hr
 - Wt. > 2.5 kg
- Length
 - Within 3 days
 - Using Infantometer
 - CRL- 50 cm
- Head circumference
 - HC - 34 cm



LBW BABIES

CAUSES

Maternal – Medical, Infections, Short stature, Under-Nutrition, Smoking

Placental- Previa, APH, Infraction, anamolies

Foetal- Congenital anamolies, twins, IUGR, TORCH infections

Medical Complications- HT, DM, Cardiac conditions, Toxemia, Anaemia, Foetal distress, Rh-Isoimmunisation, IUGR

HAZARDS

Birth Asphyxia

Hyperbilirubinemia

Hypothermia

Hypoglycemia

Infections

Apnoea

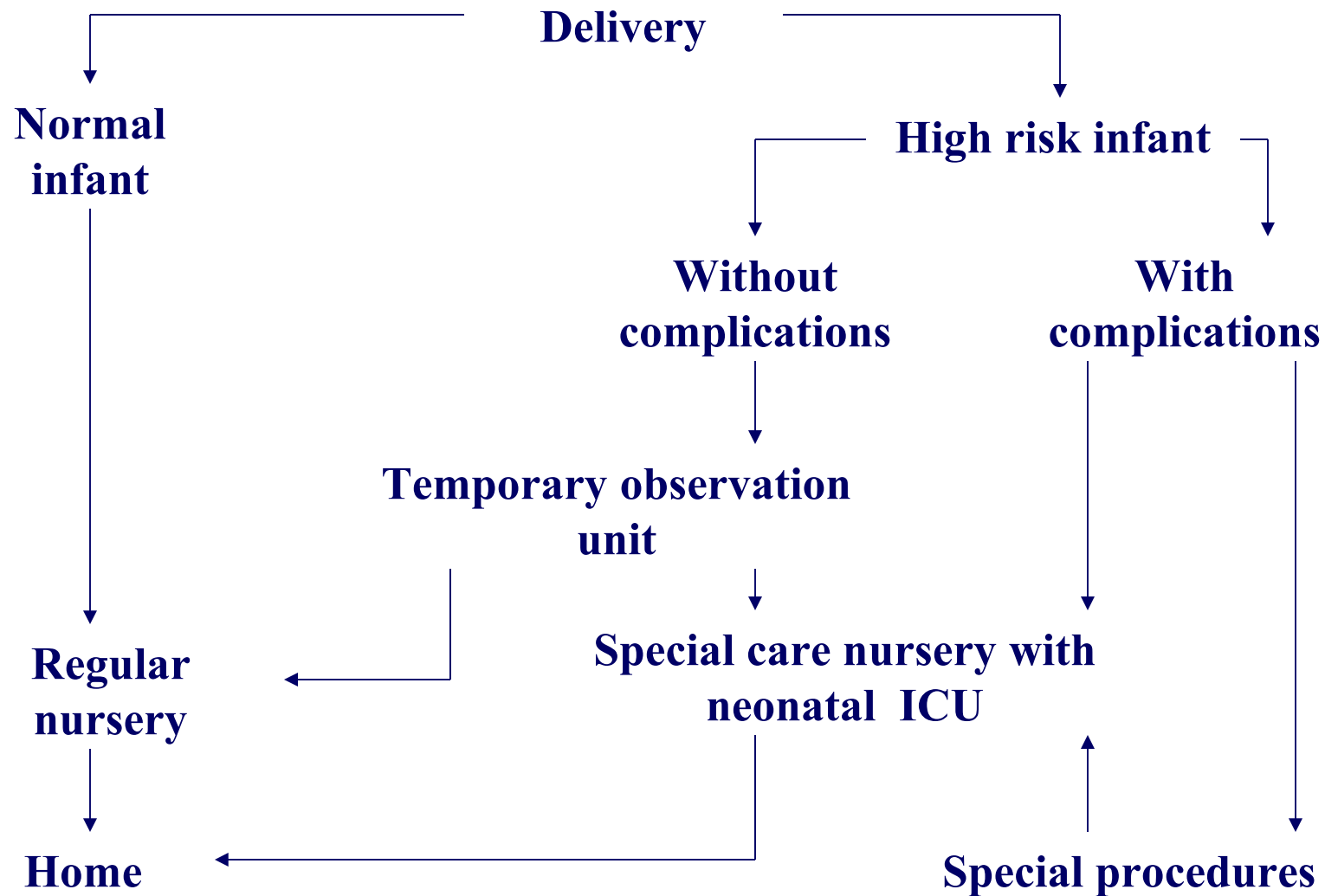
MAS

Resp. distress

Management of LBW Babies

- Care at birth – delivery at well equipped facilities
- Maintaining Warm Chain
- Appropriate place of care – acc. to weight
- Feeding regimen
- Early detection and management of complications
- Kangaroo mother care (KMC)





Schemes in India

- UIP (1985)
- CSSM (1992)
- RCH I (1997)
- JSSK/ NSSK (2005)
- RCH II (2005) – New Born Care Corners, NBSU, SNBCU
- Verbal autopsy for every death
- IMNCI plus (Includes care between 0-7 days)



Thank you