

NORMAL FULL TERM NEWBORN

Objectives

1. knowledge of normal characters of full term
2. Be able to screen for variety of diseases and congenital anomalies
3. Help parent with problems they may perceive with their baby

Definition of neonatal period:

A period from birth to 4 weeks postnatal(28 days). After the initial observation for neonatal condition requiring immediate intervention, the baby is sent to the normal newborn nursery or maternity floor for the purpose of follow up and stabilization. A healthy infant born at term (37-42 weeks) should have average birth weight more than 2.5 kg , cries immediately following birth , establishes independent rhythmic respiration and quickly adapts to changed environment.

Vital signs:

Temp. 36-37c⁰

pulse: 120-160 beats/minute

Respiration: 40-60 breaths/minute

Blood pressure: 60-70/31-45 mmHg

Classification of newborn: Classification by gestational age:

Preterm < 37 weeks

Full term:37-40 weeks

Post term:> 42 weeks

Classification by birth weight:

Low birth weight <2500 gm,

Very low birth weight < 1500 gm, Extreme low birth weight < 1000 gm

Classification by weight percentiles:

AGA : 10th - 90th percentile for GA,

SGA:< 10th percentile for GA

LGA> 10th percentile for GA

Check-list for neonatal 'history'

Review maternal notes

- **Previous children (gestation, birthweight, outcome)**
- **Family context (stable partner, employment, single parent)**
- **Family history of disease**
- **Consanguinity**
- **This pregnancy and labour (identified abnormalities or risk factors)**

Ask mother and carers about identified problems or worries

Relevance of obstetric history

Problem	Possible implication
<p>Family</p> <p>Family history of inherited disease.</p> <p>Consanguineous marriage</p> <p>Infection</p> <p>Abnormal investigations</p> <p>Delivery</p> <p>Shoulder dystocia</p> <p>Fetal scalp electrode</p> <p>Long second stage of labour</p>	<p>Depends on mode of inheritance and which family member affected Genetic advice may be necessary to assess risk. Screening tests may be possible on the baby</p> <p>Increased risk of autosomal recessive disorders particularly (metabolic disease and mental retardation)</p> <p>may cause congenital infection in the baby (rubella, cytomegalovirus, A number of infections in the mother chickenpox, etc).</p> <p>Serious abnormalities can be identified on ultrasound (e.g. diaphragmatic hernia, heart disease, renal disease, spina bifida) or amniocentesis (chromosomal anomalies).</p> <p>Fractured clavicle, Erb's palsy</p> <p>Scalp laceration</p> <p>Caput succedaneum formation</p>

Difficult delivery	Cephalhaematoma, bruising
Breech	Congenital dislocation of hip, bruising of buttocks, limb trauma
Pregnancy	
Twins/triplets	Risk of low birthweight, prematurity, birth asphyxia (particularly to last delivered)
Maternal diabetes	Risk of macrosomia, neonatal hypoglycaemia, respiratory distress and congenital malformation if control is poor

Assessment:

The initial assessment: APGAR scoring system

Purpose: is to assess the newborn'S immediate adjustment to extrauterine life

SCORE	0 points	1 point	2 points
Appearance - Skin colour	Cyanotic/ Pale all over	Peripheral cyanosis only	Pink
Pulse (Heart rate)	0	<100	100-140
Grimace - Reflex irritability)	No response to stimulation	Grimace (facial movement)/ weak cry when stimulated	Cry when stimulated
Activity - Tone	Floppy	Some flexion	Well flexed and resisting extension
Respiration	Apnoeic	Slow, irregular breathing	Strong cry

Review baby's record chart

- **Weight**
- **Feeding**
- **Urine**
- **Bowels**
- **Respiratory rate**
- **Temperature**
- **Blood glucose**
- **Bilirubin**

Normal newborn parameters

- Weight (kg) 2.5-4.0
- Term pregnancy (weeks) 37 - 41
- Head circumference (c) 33-37
- Haemoglobin (g/dl) 15-20
- Time to first passing faeces 24 and urine (h)
- Usual amount of feed (ml/kg/day)
- Day1 50
- Day 2 75
- Day3 90
- Day 4 120
- Day 5 150

Assessment of Gestational age:

TERM BABY

The baby is chubby (good subcutaneous fat),has good tone there are prominent breast buds,the ears are normally formed and the skin colour is paler than a preterm baby

PRETERM BABY

There is little subcutaneous fat and the legs are extended rather than flexed (an indication of reduced tone).the ears tend to be floppy because of reduced cartilage and the skin is thin therefore looks red

Check-list for neonatal examination

Examining	Single to look for	Comment
Colour	cyanosis,plethora	Examine in good light-cyanosis is easy to miss
Cranium	Large/small head Circumference	hydrocephalus/ microcephaly
Face	Dysmorphism	Try to identify the specific abnormal feature
Eyes	Red reflex	Use ophthalmoscope-red reflex is absent if cataract or retinal disease is present
Pulses	Brachials and femorals	Absent femoral represent possibility of coarctation
Hands	Shape, creases nails	,accessory digits
Chest	Shape, resp. rate, recession	Heart murmurs auscultation
Abdomen	Palpable masses	Liver is always palpable and kidneys usually

Umbilicus Discharge, flare around Suspect cord sepsis

Genitalia Boys: testes Girls: labia& vaginal orifice Cremasteric reflex may be very brisk

Anus Check that it is present Recto-vaginal fistula may allow the passage of meconium without an anus

Hips Subluxation/dislocation

Feet Mobility

Reflexes Moro, grasp, sucking

Tone Posture during sleep, Posture on ventral suspension

Self-Assessment

Match the right state with it's correct letter

1-Consanguineous marriage

2- Shoulder dystocia

3-Maternal Diabetes

A -Risk of macrosomia, neonatal hypoglycemia, respiratory distress and congenital malformation

B- Increased risk of autosomal recessive disorders (particularly metabolic disease and mental retardation)

C-Fractured clavicle, Erb's palsy,

* What is the benefit of examination of:-

Eyes

Hands

Skin

**# 2 hours old neonate admitted to neonatal care unit with body weight of 3 Kg
calculate his fluid requirement**

What is the possible risk that is associated with the following conditions?

- **Twins and Triplets pregnancy**
- **Breech Delivery**
- **Difficult delivery**

Mention some abnormalities that can be diagnosed prenatally by:

Ultrasound

Amniocentesis