



STAFF NURSE

MEDICAL AND HEALTH SERVICE DEPARTMENT,
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UTTAR PRADESH PUBLIC SERVICE COMMISSION

VOLUME – 3

PAEDIATRIC, MIDWIFERY
& GYNAECOLOGY NURSING



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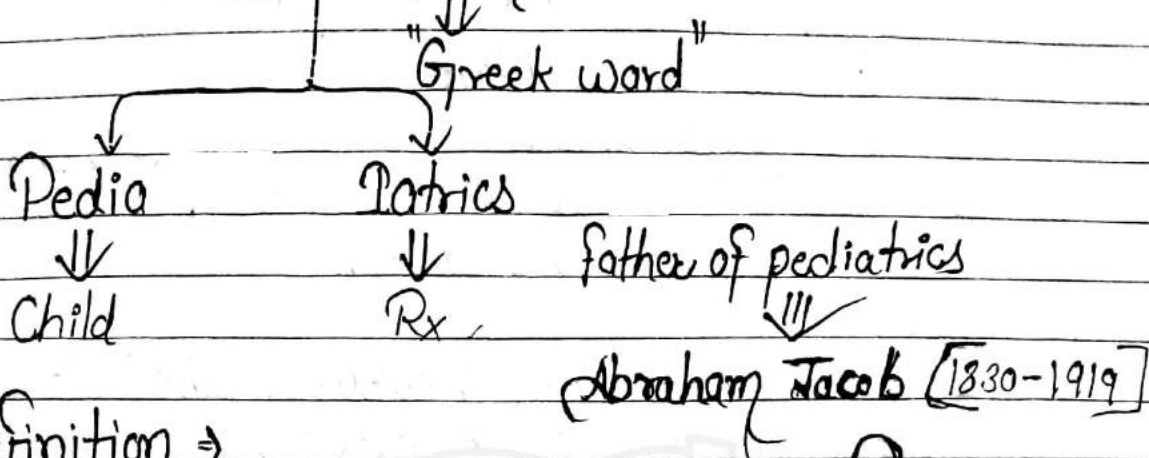
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"PEDIATRICS"



* Definition ⇒

Pediatrics is a branch of medicine that deals with medical care of different each group from 0-18 years of age.

* Care of Newborn ⇒

① Assessment ⇒

(i) Assess for initiation of Respiration.

(ii) Assess for Respiratory Distress ⇒

* Nasal Flaring (नसोंका फूलना)

* Intercostal Retraction

↳ (skin goes in the ribs because air hunger in the lungs)

* Grunting sound

* Tachypnea

Extra Note ⇒ Hyperpnea ⇒ ↑ se depth of respiration because of ↑ se tidal volume.

Normal newborn Tidal volume ⇒ 10-15 ml/kg body weight

(iii) Assess for any gross Congenital Abnormality.

Eg →

* Cleft lip & palate

* Hydrocephalus

* Abdominal wall defect Eg → Omphalocele
Gastroschiasis

* Neural tube defect

If Newborn pt. in neural tube defect → pt. give positioning → To prevent Injury.

Intervention ⇒

① Suctioning ⇒

Suctioning for mouth & nose
Because of removal of Amniotic fluid

1st Suctioning of Mouth ⇒ Because stop the sneezing Reflex.

2nd If 1st Suctioning of nose → stimulate the sneezing reflex → Because Aspirate Amniotic fluid

(Because foreign body enter in upper air-way stimulate sneezing Reflex)

(foreign body enter → irritation) Eg → pneumonia

↓ Create the disease condition

Normal Suctioning pressure ⇒

Adult ⇒ 100-120 mmHg

Time → 10-15 sec.

Newborn blood \rightarrow 80ml/kg
(at Birth)

More than 10-15 dec. (O₂ deficiency)

\downarrow
 Hypoxia
 Hypoxemia
 Cyanosis } \rightarrow Create Condition

Term Newborn suctioning pressure \rightarrow 60-80 mmHg
Time \rightarrow 10-15 sec.

preterm Newborn \rightarrow 40-60 mmHg Never more than 10 sec. Because of
 \downarrow
 (Before 37 wk of Gestation week) chances of cyanosis.

- \Rightarrow If suction devices is not available we can use asepto syring
- \Rightarrow Asepto Syring made By Rubber.

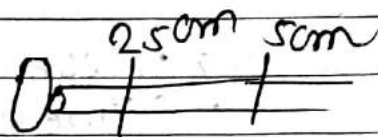
② Umbilical Cord Cutting

Omphalitis \Rightarrow Infection or Inflammation of umbilical Cord.

- \Rightarrow two Kochers Forceps are used for cord clamping & scissors or surgical blade is used for cord cutting.

Ist clamp at the distance \rightarrow 2.5 cm from the umbilicus of newborn

IInd clamp at the distance \rightarrow 5 cm from the umbilicus of newborn



Then cut in between these two clamps.

\Rightarrow Kocher's Forceps also use \rightarrow Artificial Rupture of membrane (ARM)

* If the newborn is preterm then 8cm of umbilical cord should be left because preterm newborn is high risk baby.

③ Dry the newborn with a prewarmed liner because prevent the Hypothermia from conduction-mechanism

(Heat loss air movement)
Note \Rightarrow

Temp. \Rightarrow Higher \rightarrow Lower
 consistency concentration \rightarrow concentration

Amniotic fluid removed \rightarrow Evaporation mechanism

Acute Flaccid Paralysis $\xrightarrow{\text{Found in}}$ Polio disease condition

(4) Identification

Identification Band \rightarrow

Blue \rightarrow Boy
Pink \rightarrow Girl

(5) APGAR Scoring \rightarrow

APGAR word given by \rightarrow Dr. Virginia APGAR (1952)

A \rightarrow Appearance (Skin color)

P \rightarrow Pulse (Heart Rate)

G \rightarrow Grimace (Reflex)

A \rightarrow Activity (Muscle Tone)

R \rightarrow Respiration Efforts.

* Maximum score \rightarrow 10

* Minimum score \rightarrow 0

APGAR score checking \rightarrow 1 min. or 5 min

Features	0	1	2
① Skin colour	Full Body Pink	Body pink Extremities Blue (Acrocyanosis)	Full Body pink
② Heart Rate	Absent	<100	>100
③ Reflex	No Response	Grimace (Hypoactive) Reflex	Full cry
④ Muscle Tone	Flaccid	Some Flexion of feet Extremities	Full body flexed
⑤ Respiration Effort	Apnea	Slow Irregular	Normal Regular

Intervention

① No/Mild Distress \rightarrow 8-10 \rightarrow Routine Care

② Moderate Distress \rightarrow 4-7 \rightarrow Stimulation (Sole ^{Flanking} & Back ^{Rubbing})
O₂ administration

③ Severe Distress \rightarrow 0-3 \rightarrow Immediate Resuscitation

Q As a nurse you are assessing a newborn whose Heart Rate \rightarrow 150 B/min
Respiration \rightarrow Regular
Some flexion of extremities + Acrocyanosis

Ans 6

\Rightarrow In newborn Baby Respiratory distress \Rightarrow IN

newborn not dyspnea because subjective symptom.

\Rightarrow Extra Note \Rightarrow

Adult Respiratory Distress \Rightarrow

Tachypnea
Dyspnea
Late cyanosis

* Vital Signs

- ① Heart Rate \Rightarrow 120-160/min
180 \rightarrow During Cry } Normal
80-100 \rightarrow During Sleep
- ② Respiration \Rightarrow 30-60/min (assess for full 1 min)
- ③ Temp. \Rightarrow 36.5°C - 37.5°C
- ④ B.P \Rightarrow Systolic \rightarrow 60-80 mmHg
Distolic \rightarrow 40-50 mmHg

Newborn Cardiac Output \Rightarrow 480-500ml

Q # Newborn Blood volume \Rightarrow 80ml/kg
Hb \Rightarrow 18-20

\Rightarrow In newborn baby Height is not measured because newborn baby is not standing. \therefore than length is measured.

* Body Measures ⇒

① Length ⇒

Measures By → Infantometer

Normal → 50 cm

Average → 45-50 cm (13.5-14 inches)

② Head Circumference ⇒ 33-35 cm (34 cm) occipital Bone

③ Chest circumference ⇒ 30-32 cm. (At the nipple of newborn)

④ Abdominal circumference ⇒ (31-33 cm)

↳ (slightly extra compare to chest circumference)

⑤ Mid upper arm circumference ⇒ 11-12 cm

⑥ Breast feeding ⇒

Normal vaginal delivery → Breast feeding should be started in ½ hour

C.S. delivery → Breast feeding should be started in 4 Hour

If Given vit. k injection → After delivery

Chemical name → Phytomenadion
Menadion

Because formation of clotting factor (Liver)

Clotting factor → 2, 7, 9, 10

⇒ Ampul → 0.5 ml contains → 1 mg

Dose ⇒ 1 mg given to Intramuscular Route

(Thiges Muscle)

(In vastus lateralis) muscles

* Warfarine → Anticoagulant → vitamin K.
Drug
(oral Drug)

Extra Note ⇒

⇒ Bacteria E-coli normally present in the intestine because the formation of vit. k + digestion

⇒ Birth Asphyxia ⇒ Failure to initiate + maintain Proper Respiration.

* PHYSICAL EXAMINATION OF NEWBORN

① Head Examination ⇒ Head circumference Routine checkup age 3yr.

* Head circumference = 33-35 cm

* Head length = $\frac{1}{4}$ part of total body length (12.5 cm)

Moduling ⇒

⇒ Overlapping of fetal ~~bone~~ skull bone for passing from pelvic easily.

⇒ Moduling is a normal condition.

* Assess for moduling It resolves within 72 hours

Eg → Sutures
↑ Gomphosis

Extra Note ⇒

* Type of Joint mainly 3 ⇒ (1) Fibrous Joint
Ribs ← (2) Cartilage Joint
Symphysis pubis (3) Synovial Joint

⇒ Sutures are Fibrous joints.

* Suture ⇒ widely separated sutures. Suture is a joint b/w skull

(1) * Frontal (1) suture Bones.

(2) * Coronal (2) suture ⇒ b/w parital + frontal bone

(3) * Sagittal (1) ⇒ b/w two parital bones.

(4) * Lambdoid (2) ⇒ B/w parital + occipital Bone

* Assess the fontanelles.

* fontanelles \Rightarrow wide gap b/w sutures.

Total No. of fontanelles \Rightarrow 6

- (1) Anterior fontanelles (1)
- (2) Posterior fontanelles (1)
- (3) Mastoid fontanelles (2)
- (4) Sphenoid fontanelles (2)

Anterior fontanelles	Posterior Fontanelles
① Also known as Bregma	① Also known as Lambda
② Formed of 4 sutures:- (1) Frontal \rightarrow 1 (2) coronal \rightarrow 2 (3) Sagittal \rightarrow 1	② Formed of 3 sutures (1) sagittal \rightarrow 1 (2) Lambdoidal \rightarrow 2
③ Shape \rightarrow Diamond	③ Shape \rightarrow Triangular
④ Diameter \Rightarrow	④ Diameter \Rightarrow
(A) Antero-posterior = 3-4 cm	(A) Antero-posterior \rightarrow 1.2 cm
(B) Transverse \rightarrow 2-3 cm	(B) Transverse \rightarrow 1.2 cm
⑤ fuses \rightarrow 12-18 month of age	⑤ fuses \rightarrow 6 wks of age

⇒ Fontanellus are Soft and Flat.

Depressed Fontallus → Indicate → Dehydration

Bulging Fontallus → Indicate → ↑ed Intra-cranial pressure.

"BIRTH TRAUMA"



Swelling of Head.

Birth Trauma are :-

(1) Caput Succedaneum

(2) Cephalo Hematoma

Birth Trauma

① Caput Succedaneum	② Cephalo Hematoma
<p>Def. ⇒ It is swelling of soft tissue due to improper venous drainage</p>	<p>* It is Rupture of minor veins due to friction b/w fetal skull & bone pelvis.</p>
<p>* It always present at the time of Birth</p>	<p>* It never present at the time of Birth usually develop within few hours.</p>
<p>* It accumulation of fluid b/w periosteum of bone + osteop scalp</p>	<p>* It is collection of blood b/w Bone + its periosteum</p>
<p>* It can cross suture line</p>	<p>* It can not cross suture line</p>
<p>* It is soft & compressible</p>	<p>* It is Hard and incompressible</p>
<p>* Self Resolves with in 72 Hours</p>	<p>* May Resolve within 6wk and if not resolved than incision + drainage should be done.</p>

② Eye EXAMINATION

Eyes should be their any redness or purulent discharge indicates infection in the eye.

① Ophthalmia Neonatorum ^{eye} → Infection occurs in the newborn when the mother is infected to Neisseria gonococci
↳ (cause Bacteria)

⇒ Eyes should be symmetrical

PERRAL Examination (Pupil examination)

P → Pupil

E → Equal

R → Round

R → Reactive to (Dilate + Contract)

L → Light +

A → Accommodation (Adjustment)

⇒ There may be cross eyes in a newborn that is normal due to weak to extra-ocular muscles

⇒ Red Reflex is present and absence of red reflex indicates →

① Congenital cataract

② Retinoblastoma