

Handout: Newborn Resuscitation, Stabilization, & Immediate Care of the Newborn

Immediate Care of the Newborn:

1) Anticipate factors effecting birth outcomes

Maternal Complications	Fetal Complications	Antepartum Complications	Delivery Complications
• AMA • Adolescent Mother • Diabetes • Hypertension • Substance Use D/O • Previous history of: - o Stillbirth - o Fetal loss - o Early neonatal death	• Prematurity • Postmaturity • Congenital anomalies • Intrauterine growth restriction (IUGR) • Multiple gestation	• Placental anomalies - o Placenta Previa - o Placental Abruption • Oligohydramnios • Polyhydramnios	• Abnormal fetal lie • Chorioamnionitis • Foul-smelling or meconium stained amniotic fluid • Antenatal asphyxia with abnormal FHR pattern • Maternal administration of narcotic within 4 hours of delivery • Assisted deliveries • C/S for maternal or fetal compromise

1 Goal pre-delivery: BE PREPARED!!!

Preparation:

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Immediate Care after Birth:

- 1) Primary goals:
 - a. Establish and maintain respirations
 - b. Adjusting to circulatory changes
 - c. Regulate temperature
 - d. Ingest, retain, and digest nutrients
 - e. Eliminate waste
 - f. Regulate weight
- 2) Assessments/interventions begin immediately

- a. Recognize the problems, intervene, evaluate intervention, more interventions if needed
- 3) Keep neonate warm
 - a. Warm, dry, stimulate
- 4) Ongoing assessments:
 - a.
 - b.
 - c.

Apgar Scoring-

- 1) Rapid assessment
- 2) Assesses cardiac, pulmonary, and neurosensory status
- 3) Obtained at 1 and 5 minutes

	0	1	2
Respiratory Effort	Absent		
Heart Rate	Absent		
Muscle Tone	Flaccid		
Reflex Activity	None		
Color	Blue/ pale body		

- 4) Acrocyanosis – _____
 - 1) caused by vasomotor instability, capillary stasis & increased Hgb
- B) Apgar score
 - 1) 0-3
 - 2) 4-6
 - 3) 7-10

If APGARs not available, three questions clinicians want to know...

- 1)
- 2)
- 3)

Stabilization

- 1) Transition-Newborn adjusts to extrauterine life.
- 2) Newborn= “ABC”
- 3) First actions
 - A) Provide warmth (Dry & Stimulate)
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4) NRP algorithm (See Handout)

A) Airway Maintenance

- Most secretions moved by gravity and coughed out, swallowed, suctioned, or wiped away
- Bulb syringe
 - (a)
 - (b)
- Deeper suction to remove mucus from nasopharynx or posterior oropharynx with deLee suction

B) Breathing

- Abnormal Newborn Breathing
 - (a) Bradypnea
 - (b) Tachypnea
 - (c) Abnormal breath sounds
 - (d) Audible grunting
 - (e) Respiratory distress- nasal flaring, retractions, stridor, gasping, chin tug
 - (f) Seesaw or paradoxical respirations
 - (g) Skin color- cyanosis, mottling
 - (h) Apnea >15 seconds
- Positive Pressure Ventilation
 - (a) Start with room air (____%)
 - (b) Correct head position-
 - (c) Ventilation rate: _____
- No improvement of HR? MR. SOPA
 - M-
 - R-
 - S-
 - O-
 - P-
 - A-
- Types of PPV- face mask with Ambu bag or T-piece resuscitator
- Alternate airways- Intubation with ET tube, Laryngeal Mask Airway (LMA)

C) Circulation

- Begin compressions if HR _____ AFTER 60 seconds of _____
- Increase oxygen level to 100% when starting compressions
- Compression Rate:
 - 3:1 ventilation; goal rate of _____ per minute
 - 2 thumb encircling technique or 2 finger technique
- Location of compressions:
- Reassess HR after _____ seconds of compressions

Post-Resuscitation Care:

- 1) Respirations
 - Count for 1 full minute
 - Normal:
 - Abnormal: grunting, flaring, retractions\
- 2) Heart Rate
 - Normal:
- 3) Temperature
 - Normal:
 - 1) If at 36.6 or below, recheck immediately, if still low notify instructor
 - 2)
 - 3) Perform last as neonate will probably cry, skewing HR and RR
- 4) Pulse Ox
 - Continuous for first _____ hours of life
 - Spot check after (not usually part of routine VS)
 - Utilize the “Targeted Preductal SpO2 After Birth” Chart
 - Goal of
- 5) Vital Sign frequency
 - Q 15 min X 1 hr
 - Hourly X 2 hrs
 - Q 4-8 hrs depending on risk factors

Thermoregulation

- Cold Stress- Increases need for oxygen and can deplete glucose stores
- Heat loss in infants
 - 1) Thin layer of subcutaneous fat
 - 2) Blood vessels close to skin surface
 - 3) Larger body surface to weight ratios
 - 4) Changes in environmental temperature
 - 5) Immature thermoregulation center
- Heat loss Mechanisms - 4 types of heat loss

Conduction- Loss of heat from the body surface to cooler surfaces in direct contact

Convection- Flow of heat from the body surface to cooler ambient air

Evaporation- Loss of heat when a liquid is converted to vapor

Radiation- Loss of heat from the body surface to a cooler solid surface not indirect contact, but relative proximity

Quick Initial Assessment:

Quick check for anomalies

- A) External assessment: skin color, peeling, birth injuries, foot creases, breast tissue, nasal patency, meconium staining, obvious anomalies (cleft lip/ palate, exposed spinal column)
- B) Chest: ease of breathing, auscultation for heart rate and quality of tones, respirations for crackles, wheezes, and equality of bilateral breath sounds
- C) Abdomen: rounded abdomen and umbilical cord with one vein and two arteries
- D) Trunk: Patent Anus- no rectal temps until passage of first meconium
- E) Neurologic: muscle tone and reflex reaction (moro reflex), palpation for presence and size of fontanels and sutures, assessment of fontanels for fullness or bulge

Infant Safety and Security:

- F) Security Band on baby's ankle
 - a) Infant abduction system- skin sensitive tracker with door alarms and locks
- G) Mother/baby identification bands
 - a) Apply ID bands to mom and baby prior to moving infant from mother's side
- H) Never let baby go with someone who has no badge
- I) Baby stays in room w/ mom-
- J) Transport in bassinet
- K) Wheels locked when not transporting
- L) Assess mom's status
- M) Introduce self, show badge, explain where and why taking infant
- N) Baby on back to sleep, one-piece sleeper or swaddle, no blankets, bumpers, toys/stuffed animals in crib.
- O) Obtain footprints

Measurements

- 1) Weight
 - (a) AGA-appropriate for gestational age between _____
 - (b) SGA-small for gestational age < _____% on growth curve
 - (c) LGA-large for gestational age > _____% on growth curve
- 2) Length
 - (a) infant on flat surface then extend leg- top of head to bottom of heel
 - (b) Caput and molding can alter measurements
 - (c) Normal-
- 3) Head Circumference
 - (a) Just above ears
 - (b) Normal-
 - (c) Molding can alter measurement
 - (d)
- 4) Chest Circumference
 - (a) Over the nipple line
 - (b) Normal-
 - (c) _____cm smaller than head

Newborn Prophylaxis:

This information can all be found in your book. This is the information you will need for your Newborn CADSCANS for clinical.

- I. Vitamin K Prophylaxis
(pg. 573 Medication Guide)
 - a. Action:
 - b. Indication:
 - c. Dosage:
 - d. Adverse Reactions:
 - e. Nursing Considerations:
- II. Eye Prophylaxis- Erythromycin Ophthalmic Ointment 0.5%
(Pg. 573 Medication Guide)
 - a. Action
 - b. Indication:
 - c. Dosage:
 - d. Adverse Reactions:
 - e. Nursing Considerations:
- III. Hepatitis B Vaccine
(Pg. 586 Medication Guide)
 - a. Action:
 - b. Indication:
 - c. Dosage:
 - d. Adverse Reactions:
 - e. Nursing Considerations:
- IV. IM Injection Procedure: Review on pages 584-585 in textbook before clinical.