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 or 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)
   - Utlilize 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.