N432 Maternal Newborn Remediation
Professor Kamradt

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Assessment Name: ATI proctored remediation
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Main Category: Safety and Infection Control
Subcategory: Security Plan
Topic: Nursing Care and Discharge Teaching: Teaching to Promote Newborn Safety in the Hospital * **Educate on holding strategies for newborns:** upright position, cradle hold, and football hold. As well as how to properly swaddle. * **Newborn sleep:** Properly swaddled, on flat mattress, with no other object in the basinet, and placed in supine only. * Keep TUG tag on, do not allow unidentified staff to hold or move baby, ask for baby to rest in the safety and observation of the nursery if you are going to be sleeping in postpartum room.

Main Category: Health Promotion and Maintenance
Subcategory: Ante-/Intra-/Postpartum and Newborn Care
Topic: Expected Physiological Changes During Pregnancy: Calculating Expected Date of Birth * **Nägele's rule:** LMP + 9 months − 7 days = Estimated Due Date (EDD) * **Measure fundal height:** in cm's from the symphysis pubis to the top of the uterine fundus (between 18 and 30 weeks of gestation). Approximates the gestational age, plus or minus 2 gestational weeks. * Production of hCG begins with implantation, peaks at about 60 to 70 days of gestation, declines until around 100 to 130 days of pregnancy, and then plasma levels remain at this lower level for the remainder of the pregnancy. **Topic:** Postpartum Disorders: Identifying Risk Factors for Postpartum Hemorrhage * Defined as a cumulative blood loss of >1000ml w/i 24 hours. * Risk factors: Uterine atony or history of uterine atony, Overdistended uterus, Prolonged labor, oxytocin-induced labor, High parity, Ruptured uterus, Complications during pregnancy (placenta previa, abruptio placentae), Precipitous delivery, Administration of magnesium sulfate therapy during labor, Lacerations and hematomas, Inversion of uterus, Subinvolution of the uterus, Retained placental fragments, Coagulopathies (DIC). * **Physical assessment findings:** Uterine atony (hypotonic or boggy), Blood clots larger than a quarter, Perineal pad saturation in 15 min or less. Constant oozing, trickling, or frank flow of bright red blood from the vagina. Tachycardia and hypotension. Pallor of skin and mucous membranes; cool, and clammy with loss of turgor. Oliguria
Subcategory: Lifestyle Choices
Topic: Contraception: Contraindications for Use of Oral Contraceptives * **Contra's: History of –** thromboembolic disorders, stroke, HA, CAD, gallbladder disease, cirrhosis or liver tumor, headache with focal neurologic findings (migraines), uncontrolled hypertension, diabetes

mellitus with vascular involvement, breast or estrogen-related cancers, pregnancy, lactating, less than 6 weeks postpartum, or smoking (if over 35 years of age)
* Oral contraceptive effectiveness decreases when taking medications that affect liver enzymes (anticonvulsants, antifungals, some antibiotics).
* Take pill at the same time dialy, do not miss pills, and may not be effective in first month of taking.

Main Category: Basic Care and Comfort
Subcategory: Nonpharmacological Comfort Interventions
Topic: Pain Management: Nonpharmacological Methods * **Gate-control methods include:** Aromatherapy, Breathing techniques, Imagery, Music, Use of focal points, Subdued lighting. * **Cognitive strategies include:** Education, hypnosis, biofeedback, breathing through a paper bag or cupped hands. * Managing client anxiety/fear/tension are significant to controlling pain. Positioning strategies are also key, as well as rocking/effleurage/sacral counterpressure/TENS/hydroptherapy/and therapeutic heat or cold.
Subcategory: Nutrition and Oral Hydration
Topic: Medical Conditions: Clinical Manifestations of Hyperemesis Gravidarum * Hyperemesis Gravidarum (HG), if allowed to persist untreated can cause weight loss, dehydration, nutritional deficiencies, electrolyte imbalances, and ketonuria. Viisibly poor skin turgor, hypotension, and tachycardia are also observed in this. * HG carries and increased risk to the fetus for intrauterine growth restrictions, the diagnosis of small for gestational age, or preterm birth if the condition persists. Treatment is critical. * **Risk factors for HG include:** Maternal age younger than 30 years, Multifetal gestation, Gestational, trophoblastic disease, Psychosocial issues and high levels of emotional stress, Clinical hyperthyroid disorders, Diabetes, Gastrointestinal disorders, Family history of hyperemesis

Main Category: Pharmacological and Parenteral Therapies
Subcategory: Medication Administration
Topic: Prenatal Care: Immunizations for a Client Who Is at 30 Weeks of Gestation * **T-Dap (Tetanus, diphtheria, and pertussis) are given during this time.** * **Inactivated flu shots are acceptable as well.** * **Live vaccines, however, such as MMR (measles, mumps, rubella) - are not acceptable during pregnancy.**
Subcategory Pharmacological Pain Management
Topic: Postpartum Physiological Adaptations: Planning Medication Administration for a Postpartum Client Following a Vaginal Birth * Administer (nonopiod) analgesics (acetaminophen), NSAIDS (ibuprofen). As well as opioids (codeine, hydrocodone) for pain and discomfort. * Apply topical anesthetics (benzocaine spray) to perineal area PRN for Pn/discomfort; witch hazel compresses or hemorrhoidal creams to the rectal area for hemorrhoids. * Rhogam should be given to Rh (-) mothers w/i 72 hours after birthing is complete. Varicella, MMR, TDAP immunizations if no immunity present. Client should avoid getting pregnant for 1 month after

injections (shouldn't be having vaginal intercourse for 6 weeks anyway).

Main Category: Reduction of Risk Potential
Subcategory: Diagnostic Tests
Topic: Assessment of Fetal Well-Being: Interpreting the Results of a Biophysical Profile * A Biophysical Profile (BPP) is conducted through a scoring system for 5 distinct categories, scored at a 0-2 range each, for a total of 10 points possible. * **Categories include:** **FHR – R**eactive =2, nonreactive = 0. **Breathing –** At least x1 episode of movement >30 seconds in 30 min = 2; Less than =0 **Movement –** Body movements of at least 3 limb/body extensions w/ return to flexion in 30 min = 2; less than = 0. **Tone –** At least x1 episode of extension w/ return to flexion = 2\; less than or slow movement= 0. **Amniotic fluid –** At least x1 pocket of fluid at least 2cm and in 2 perpendicular planes = 0; fewer or absent pockets = 0. * **Total scoring:** 8-10 = normal; 4-6 = abnormal & potential for chronic fetal asphyxia; <4 = highly* abnormal, and essentially confirms chronic fetal asphyxia.
Subcategory: Potential for Alterations in Body Systems
Topic: Labor and Delivery Processes: Determining True Signs of Labor ***Contractions:** may begin irregularly, but will become regular in frequency. They will grow strong, longer, and more frequent. They will be felt in the back and radiate to abdomen. Walking may increase intensity, but certainly will not alleviate it like in false labor. * **Cervix:** Progressive change in dilation and effacement. Bloody show. * **Fetus:** Presenting part engages in pelvis, and tocometer will evidence contractions as having an effect on fetus.
Subcategory: Therapeutic Procedures
Topic: Therapeutic Procedures to Assist With Labor and Delivery: Planning Interventions for a Cesarean Birth * **Preoperative planning:** nurse should verify informed consent, place indwelling catheter, initiate IV fluids, and position client appropriately for procedure. * **Intraoperative monitoring:** continue to monitor FHR, maternal vital signs, UO, and assist in sterile technique/timeout/and instrument counts. * **Post-op recovery:** monitor for infection or hemorrhage. Facilitate and encourage early ambulation. Manage pain levels. Assess uterine firmness and lochia.
Subcategory: Potential for Complications from Surgical Procedures and Health Alterations
Topic: Assessment of Fetal Well-Being: Complications Associated With an Amniocentesis * **Potential amniocentesis complications include:** Amniotic fluid emboli, Maternal or fetal hemorrhage, Fetomaternal hemorrhage with Rh isoimmunization, Maternal or fetal infection, Inadvertent fetal damage or anomalies involving limbs, Fetal death, Inadvertent maternal intestinal or bladder damage, Miscarriage or preterm labor, Leakage of amniotic fluid. * **Actions:** Monitor vital signs, temperature, respiratory status, FHR, uterine contractions, and vaginal discharge for amniotic fluid or bleeding. Administer medication as prescribed. Offer support and

reassurance.
* **Bonus:** Lecithin/sphingomyelin ratio (L/S RATIO): a 2:1 ratio here indicates fetal lung maturity. Higher ratios may also denote diabetes mellitus. ALSO: Phosphatidylglycerol (PG): Absence of PG is associated with respiratory distress.

Main Category: Physiological Adaptation

Subcategory: Alterations in Body Systems

Topic: Labor and Delivery Processes: Priority Action to Take Following Rupture of Membranes

* Immediately following the rupture of membranes, a nurse should assess the FHR for abrupt decelerations, which are indicative of fetal distress to rule out umbilical cord prolapse.
* The next step should be assessing the amniotic fluid. It should be watery, clear, and potentially have a slight yellow tinge. Not malodorous, and with a volume of 700ml-1000ml.
* Nitrazine paper is used to confirm that content is amniotic fluid, which is alkaline in nature, and will appear blue with a basic alkalinity of 6.5-7.5; This as opposed to urine, which is acidic, and if content is urine the nitrazine paper will remain yellow.

Topic: Medical Conditions: Planning Care for a Client Who Has Preeclampsia Without Severe Features
* **There are 3 categories in gestational hypertension:** preeclampsia without severe features; preeclampsia with severe features; and eclampsia. In any case it is a condition of vasospasm impairing tissue perfusion and elevating blood pressure levels.
* Gestational hypertensive diseases are associated with placental abruption, kidney failure, hepatic rupture, preterm birth, and fetal and maternal death
* **Preeclampsia –** Diagnosed via proteinuria (though may not always be present. As well as headaches, irritability, edema, and hypertension.
Severe preeclampsia is an increase in all of these findings, with an elevated blood-creatinine level >1.1, visual disturbances, hyperreflexia, thrombocytopenia, and epigastric/RUQ pain.
Eclampsia – condition has worsened even more and now may present with seizure or coma.

Subcategory: Medical Emergencies

Topic: Bleeding During Pregnancy: Findings Associated with Placental Abruption

* **Placenta previa –** painless vaginal bleeding. **VS: Abruptio Placentae**: vaginal bleeding w/ sharp abdominal pain and a tender & rigid uterus.
* **Findings include:** Sudden onset of intense localized uterine pain w/ dark red vaginal bleeding, uterine tenderness can be localized or diffuse over uterus and board-like, Contractions with hypertonicity, Fetal distress, S/S of hypovolemic shock
* **Labs will demonstrate:** decreased hgb, hct, clotting factors and clotting time. Ultrasound and biophysical profile will be indicated to confirm fetal well-being.

Subcategory: Unexpected Response to Therapies

Topic: Nursing Care During Stages of Labor: Nursing Interventions for Umbilical Cord Prolapse

* **Priority –** Relieve pressure on the cord to reduce compressing forces. Elevate the fetal part off of the cord through a vaginal exam, and maintain the hand in place until delivery or surgery can intercede.
* **Secondary** - further reduce these pressure forces through repositioning of the mother with a knee-chest position and/or Trendelenburg position of the bed.
* **Tertiary –** Prepare for emergency cesarean section. Stop uterotonic medications like oxytocin/pitocin to reduce further compressive forces. Apply supplemental oxygen to maximize fetal

oxygenation.

Main Category: Clinical Judgement

Subcategory: Prioritize Hypotheses

Topic: Early Onset of Labor: Prioritizing Care for a Client Who Is Experiencing Preterm Labor

* **Preterm labor:** defined as uterine contractions and cerical changes (true labor) occurring after 20 weeks up to just shy of 37 weeks. (very preterm = <32w; moderate preterm = 32-34; late perterm = 34-36w)
* Risk Factors: Infections of the urinary tract or vagina, HIV, active herpes infection, or intrauterine infection (infection of the amniotic sac), Previous preterm birth, Multifetal pregnancy, Smoking, Substance use, Violence or abuse, Lack of prenatal care, Uterine abnormalities, Low prepregnancy weight, Advanced maternal age
* **Clients in preterm labor should be:** predominately on bedrest with bathroom privileges. Restricted from vigorous activity or sexual intercourse. And encouraged to hydrate heavily.

Subcategory: Recognize Cues

Topic: Early Onset of Labor: Manifestations of Preterm Labor

* **Findings:** Uterine contractions, Pressure in the pelvis and menstrual-like cramping, Persistent low backache, Gastrointestinal cramping, may have diarrhea, Urinary frequency, Vaginal discharge.
* **Physical assessment findings:** Increase, changae, odor or blood in vaginal discharge, Change in cervical dilation, Regular uterine contractions with a frequency of every 10 min or greater, lasting 1 hr or longer, Prelabor rupture of membranes, Discomfort (dull lower abdominal pain or back pain, pelvic pressure or heaviness)
* **LABS**: Fetal fibronectin, Cervical cultures, CBC, Urinalysis

Subcategory: Analyze Cues

Topic: Assessment and Management of Newborn Complications: Analyzing Cues
Neonate Abstinence Syndrome (Withdrawal):

* **CNS:** High-pitched, shrill cry; incessant crying; irritability; tremors; hyperactivity with an increased Moro reflex; increased deep-tendon reflexes; increased muscle tone; disturbed sleep pattern; hypertonicity; convulsions
* **Metabolic, vasomotor, and respiratory findings:** Nasal congestion with flaring, frequent yawning, skin mottling, retractions, apnea, tachypnea greater than 60/min, sweating, temperature greater than 37.2° C (99° F)
* **Gastrointestinal:** Poor feeding; regurgitation (projectile vomiting); diarrhea; excessive, uncoordinated, constant sucking
* **Misc:** Low birth weight, Small for gestational age (SGA), Manifestations of neonatal abstinence syndrome, Increased risk of sudden unexpected infant death (SUID). Increased incidence of seizures, sleep pattern disturbances, stillbirth, SUID, higher birth weights (compared to with heroin exposure)

Topic: Assessment and Management of Newborn Complications: Identifying Findings to Report to Provider

* **Lab results to monitor:** CBC, Blood glucose, Thyroid-stimulating hormone, thyroxine, triiodothyronine, Drug screen of urine or meconium to reveal the substance used by the parent, Hair analysis.
* **Diagnostic results:** Chest x-ray for FAS to rule out congenital heart defect**s**

* **Any of the above mentioned physical or behavioral abnormalities, plus:**
Jitteriness, irritability, increased tone and reflex responses, seizures, small eyes, flat midface, smooth philtrum, thin upper lip, eyes with a wide-spaced appearance, epicanthal folds, strabismus, ptosis, poor suck, small teeth, cleft lip or palate.
As well as many vital organ anomalies, such as: Heart defects, including atrial and ventricular septal defects, tetralogy of Fallot, patent ductus arteriosus. Developmental delays and neurologic abnormalities. Prenatal and postnatal growth delays. Sleep disturbances.

Topic: Early Onset of Labor: Analysis of Findings of Preterm Labor

* **Vaginal secretion swabs for fetal fibronectin:** This protein can be expected during early and late pregnancy, but presence between 24 weeks and 34 weeks, 6 days can indicate inflammation, which increases risk for preterm labor within the next 2 weeks. FFN testing combined with cervical measurements is the best way to determine risk for preterm labor.
* **Measure for a shortened endocervical length with an ultrasound. Cervical shortening occurs before uterine activity (contractions), so this can be a predictor of risk in conjunction with other findings. Cervical length greater than 30 mm indicates low risk of preterm labor.**
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Topic: Medical Conditions: Interpreting Findings for a Client Who Has HELLP Syndrome

* **Expected findings (subjective reports):** severe continuous headache, nausea, blurring of vision, flashes of lights or dots before the eyes.
* **Findings (Physical Assessment):** Hypertension, Proteinuria. Periorbital, facial, hand, and abdominal edema. Pitting edema of lower extremities, Vomiting, Oliguria, Hyperreflexia, Scotoma, Epigastric pain, RUQ Pn, Dyspnea, Diminished breath sounds, Seizures, Jaundice. Manifestations of progression of hypertensive disease with indications of worsening liver involvement, kidney failure, worsening hypertension, cerebral involvement, and developing coagulopathies.
* **Lab findings:** Elevated liver enzymes (LDH, AST). Increased creatinine, and plasma uric acid. Thrombocytopenia. Decreased Hgb in HELLP, but* uncreased in preeclampsia. Hyperbilirubinemia.
*BONUS: HELLP: Hemolysis, Elevated Liver enzymes, Low Platelets.

Subcategory: Generate Solutions

Topic: Early Onset of Labor: Interventions for Client Who Has a Preterm Labor

* Administer nifedipine – a calcium channel blocker that suppresses the smooth muscles responsible for contractions. **(VS)** Admin tocolytics (cant be use at same time as nifedipine) - also reduces contractions, examples: terbutaline, magnesium sulfate.
* Administer IV fluids to combat hypotension and dehydration.
* Administer betamethasone to enhance fetal lung maturity and surfactant production in fetuses between 24-34 weeks of gestation to prepare fetus for respiratory work outside the womb.

Subcategory: Evaluate Outcomes

Topic: Early Onset of Labor: Evaluating Client Response to Magnesium Sulfate Therapy for Preterm Labor

* **Discontinue tocolytic therapy immediately if:** Client exhibits manifestations of pulmonary edema, which includes chest pain, shortness of breath, respiratory distress, audible wheezing and crackles, and a productive cough containing blood-tinged sputum.

* **Monitor for adverse effects:** hot flashes, diaphoresis, burning at IV site, nausea, vomiting, drowsiness, blurred vision, headache, non-reactive nonstress test, reduced fetal heart rate variability.
* **Monitor for mag sulfate toxicity:** loss of deep tendon reflexes, oliguria, bradypnea, pulmonary edema, severe hypotension, or chest pain.
* Administer calcium gluconate or calcium chloride as an antidote

Subcategory: Take Actions

Topic: Assessment and Management of Newborn Complications: Interventions for a Newborn Who Has Neonatal Abstinence Syndrome

* **Monitor:** neonatal abstinence scores, newborn reflexes, I&O's, feeding/latching, mucous membranes, fontanels, daily weights, skin turgor and electrolytes.
* Reduce environmental stimuli (lights, noise, etc**).** Cluster care. Admin frequent small feeds, and use variable nipples on bottles to compensate for poor sucking.
* Swaddle with flexed limbs. Keep suction ready to reduce aspiration risks. Use vertical rocking and pacifier.

Topic: Early Onset of Labor: Actions to Take for a Client Who Has Received Magnesium Sulfate

* **Monitor:** client respirations & respiratory sounds, DTR's, vision, skin turgor(edema), blood pressure, urinary output. Fetal heart rate and variability
* Keep calcium gluconate on hand as a reversal agent for overdoses. Monitor for uterin atony.
* Maintain a therapeutic range of 4-7 mEq/L, with lab draws Q4-Q6. Levels >8 mEq/L indicate toxicity.