N432 Newborn Care Plan

Lakeview College of Nursing

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Demographics (10 points)

Date & Time of Clinical Assessment 10/13/2021 & 1000	**Patient Initials C.W.**	**Date & Time of Birth 10/11/2021 & 1215**	**Age (in hours at the time of assessment) 45.75 hours**
Gender Male	**Weight at Birth (gm) __4,695__ (lb.) _10_ (oz.) _5.6_**	**Weight at Time of Assessment (gm) __4,440__ (lb.) _9_ (oz.) _12.6_**	**Age (in hours) at the Time of Last Weight 45.75 hours**
Race/Ethnicity Caucasian	**Length at Birth Cm __54.6__ Inches __21.5__**	**Head Circumference at Birth Cm __37__ Inches __14.6__**	**Chest Circumference at Birth Cm __39__ Inches __15.4__**

There are times when the weight at the time of your assessment will be the same as birth

Mother/Family Medical History (15 Points)

Prenatal History of the Mother:

GTPAL: The patient scored a one for gravida, or G, as the neonate is the patient's firstborn. The patient scored a one with the term, or T, as the patient carried the male neonate to term at forty-one weeks and two days. Next, with preterm, or P, the patient scored zero as the patient carried the baby to term at forty-one weeks and two days. The patient scored a zero for abortion, or A, as never miscarried or terminated a pregnancy. Lastly, for living, or L, the patient scored a one, as the male neonate is firstborn and only living child of the patient.

When prenatal care started: Prenatal care began on 02/22/2021 with the initial prenatal visit. The patient was at eight weeks and two days of gestation when prenatal care began. During the initial visit, the obstetrician discerned the estimated due date of the neonate as 10/02/2021, as the patient's last menstrual period was 12/26/2020.

Abnormal prenatal labs/diagnostics: On 02/22/2021, the initial prenatal visit, the patient at eight weeks and two days of gestation had a Body Mass Index of 28.19, overweight, and an absolute neutrophil level of 7.85, which is abnormally high. On 05/18/2021, during a regular prenatal visit, an ultrasound detected a 2.33 mm pericardial effusion. Lastly, on 07/15/2021, another scheduled prenatal visit elevated white blood cell count, read 13.47; the patient was at twenty-eight weeks and five days of gestation on 07/15/2021.

Prenatal complications: The patient had a few prenatal complications, such as macrosomia presentation. The fetus's classification of large gestational age (LGA) complicated the pregnancy. Lastly, a fetal pericardial effusion noted on an ultrasound on 07/15/2021 presented a complication to pregnancy too.

Smoking/alcohol/drug use in pregnancy: The patient reports never smoking, drinking, or utilizing drugs while pregnant.

Labor History of Mother:

Gestation at onset of labor: The patient was at forty-one weeks and two days of gestation before the scheduled Cesarean section occurred.

Length of labor: Due to the scheduled cesarean section, the length of labor was much shorter than a spontaneous vaginal birth. The length of the cesarean section was forty-nine minutes, which is approximately average for a typical cesarean section. The male neonate was born at 1215 on 10/11/2021.

ROM: The rupture of the membranes was done artificially at 1214 on 10/11/2021. The amniotic fluid was clear, normal, and odorless upon artificial rupture.

Medications in labor: The patient was given a spinal of bupivacaine 0.75% in dextrose 8.25%. The patient also received an injection of morphine sulfate.

Complications of labor and delivery: No labor and delivery complications occurred, other than the mother's quantitative blood loss of 843 mL, which may indicate potential postpartum hemorrhage.

Past Surgical History: The mother of the infant has no past surgical history.

Family History:

Pertinent to infant: The infant's maternal grandmother has a history of diabetes.

Social History (tobacco/alcohol/drugs):

Pertinent to infant: The patient reports never being a user of tobacco, alcohol, or drugs.

Father/Co-Parent of Baby Involvement: Yes, the father of the baby was present and involved.

Living Situation: The infant's mother lives with her husband, where the infant will live upon discharge from Heart of Mary Medical Center.

Education Level of Parents (If applicable to parents' learning barriers or care of infant): Neither parent had any learning barriers. Both parents graduated college after four years of education and completed a few years of graduate school.

Birth History (10 points)

Length of Second Stage of Labor: The second stage of labor is difficult to discern, given that the mother delivered the neonate via a scheduled cesarean section. The total time of the cesarean section took approximately forty-nine minutes. However, the average length of the second stage of labor may last as long as three hours.

Type of Delivery: The mother delivered the male neonate via a scheduled cesarean section.

Complications of Birth: A birth complication was a heavy male neonate of 10 lbs., 5.6 oz with a head circumference of 37 cm, and a chest circumference of 39 cm.

APGAR Scores:

1 minute: The male neonate scored an eight on the APGAR at one minute.

5 minutes: The male neonate scored a nine on the APGAR at one minute

Resuscitation methods beyond the normal needed: No resuscitation methods besides oral suctioning needed.

Feeding Techniques (10 points)

Feeding Technique Type:

If breastfeeding:

LATCH score: The male infant scored a 9/10 due to the excellent feeding of the infant from the second the mother began breastfeeding.

Supplemental feeding system or nipple shield: No supplemental feeding system or nipple shield needed.

If bottle feeding: Not applicable.

Positioning of bottle:

Suck strength:

Amount:

Percentage of weight loss at time of assessment: -5.43%

Calculation of weight loss percentage: 4,440 g/ 4,695 g x 100= 94.5686901, 94.5686901 – 100= -5.43230 = **-5.43%**

****Show your calculations; if today's weight is not available, please show how you would calculate weight loss (i.e. show the formula)****

What is normal weight loss for an infant of this age? Normal weight loss for a two-day-old infant ranges from a 5% to 7% loss, which is within normal limits as the male infant lost -5.43%.

Is this neonate's weight loss within normal limits? Yes, this male neonate's weight loss is within normal limits.

Intake and Output (8 points)

Intake

If breastfeeding:

Feeding frequency: The male infant feeds approximately every two to three hours.

Length of feeding session: Feeding sessions usually last between forty to forty-five minutes for the male neonate.

One or both breasts: First, the male neonate only fed on the right breast, but toward the end of the day, the baby fed bilaterally from both breasts.

If bottle feeding: Not applicable.

Formula type or Expressed breast milk (EBM):

Frequency:

Volume of formula/EBM per session:

If EBM, is fortifier added/to bring it to which calorie content:

If NG or OG feeding: Not applicable.

Frequency:

Volume:

If IV: Not applicable.

Rate of flow:

Volume in 24 hours:

Output

Age (in hours) of first void: The male infant was 10.75 hours old when the first urine void occurred on 10/11/2021.

Voiding patterns: The male infant's voiding pattern is spontaneous without difficulty.

Number of times in 24 hours: The male neonate voided twice in twenty-four hours.

Age (in hours) of first stool: The male infant was 14.75 hours old when the first stool occurred.

Stool patterns: The male infant voids stools spontaneously without any difficulty in the early mornings.

Type: The male infant voids large stools.

Color: The stool voided is a meconium green color.

Consistency: The consistency of the stool voided is tarry.

Number of times in 24 hours: The male neonate voided three times in 24 hours.

Laboratory Data and Diagnostic Tests (15 points)

Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

****No abnormal values found in completed labs with results.**

Name of Test	Why was this test ordered for THIS client? *Complete this even if these labs have not been completed*	Expected Results	Client's Results	Interpretation of Results
Blood Glucose Levels	**Due to the male neonate's LGA classification, blood glucose monitoring is necessary to assess for low blood glucose, common in LGA neonates**	**45-126**	**53**	**The male neonate's blood sugar of 53 is within normal limits and a normal, expected blood glucose test result (Ricci et al., 2021).**

	(Ricci et al., 2021).			
Blood Type and Rh Factor	**Blood type and Rh factor testing are imperative to prevent the mother from forming antibodies and attacking the infant's blood due to an Rh factor incompatibility and in the case of bleeding or hemorrhaging (Ricci et al., 2021).**	**A, AB, O, B** **+/-**	**AB+**	**The male neonate's blood type and Rh factor of AB+ is a typical, expected result primarily due to the mother's blood type and Rh factor of AB+ (Ricci et al., 2021).**
Coombs Test	**Coombs Test detects Rh incompatibility between the mother and neonate to prevent the mother from producing antibodies to the fetus's blood and then attacking the fetus (Ricci et al., 2021).**	**Negative**	**Negative**	**Coombs Test detected a negative result of Rh factor incompatibility between the mother and neonate. A negative is the expected or normal result of a Coombs Test (Ricci et al., 2021). The mother and neonate's Rh factors are both positive, and both the mother and neonate have the same blood type, AB (Ricci et al., 2021).**
Bilirubin Level (All babies at 24 hours)	**Bilirubin level tests are necessary to detect high**	**1.0-12.0**	**5**	**The male neonate's result of 5 is within normal limits for a bilirubin level**

Utilize bilitool.org for bilirubin levels	**bilirubin levels in infants because of the infant's underdeveloped liver (Ricci et al., 2021). High bilirubin levels manifest in jaundice approximately twenty-four hours after birth (Ricci et al., 2021).**			**(Ricci et al., 2021). According to BiliTool™, the infant is at low, intermediate risk with a bilirubin level of 5.**
Newborn Screen (At 24 hours)	**Newborn screening occurs to ensure that the neonate generally adapts after birth and identifies any abnormalities that may negatively affect the infant (Ricci et al., 2021). The screening is done around twenty-four hours because some conditions may go undetected before twenty-four hours of age (Ricci et al., 2021). The newborn screening consists of a heel stick for**	**No metabolic, hormone, or blood disorders detected.**	**(If available—these may be not available until after discharge for some clients) **Not applicable**	****Not applicable**

	metabolic, hormone, or blood disorders (Ricci et al., 2021).			
Newborn Hearing Screen	**Newborn hearing screening assesses for permanent hearing damage or impairment in neonates after birth (Ricci et al., 2021).**	**Pass indicates no hearing damage or impairment in the neonate (Ricci et al., 2021).**	****Not applicable**	****Not applicable**
Newborn Cardiac Screen (At 24 hours)	**Newborn cardiac screening occurs to identify any critical congenital heart defects in the neonate before discharge (Ricci et al., 2021).**	**Pass indicated no critical congenital heart defects or issues found in the neonate (Ricci et al., 2021).**	****Not applicable**	****Not applicable**

Lab Data and Diagnostics Reference (1) (APA):

BiliTool™. (2004). BiliTool™. Retrieved October 16, 2021, from https://bilitool.org/

Ricci, S. S., Kyle, T., & Carman, S. (2021). *Maternity and pediatric nursing* (4th ed.). Wolters Kluwer.

Newborn Medications (7 points)

Brand/Generic		**Illotycin**	**Hepatitis B**		

	Aquamephyton (Vitamin K)	(Erythromycin Ointment)	Vaccine		
Dose	**1 mg**	**1 drop**	**5 mcg**		
Frequency	**Once**	**Once**	**1st dosage of vaccine**		
Route	**Intramuscular injection**	**Topical ointment, dropped in both eyes**	**Intramuscular injection**		
Classification	**Pharmacological: fat-soluble vitamin**	**Pharmacological: macrolide Therapeutic: antibiotic**	**Pharmacological: Inactivated viral vaccine**		
Mechanism of Action	**Vitamin K allows clotting factors to bind to calcium ions, which activates the clotting factors to promote normal blood clotting function.**	**Erythromycin (Illotycin) binds with specific units of bacterial RNA to inhibit RNA protein synthesis in bacterial cells, which causes the bacteria to die.**	**The hepatitis B vaccine is a recombinant that prevents the hepatitis B virus infection by causing the body to produce antibodies against hepatitis B.**		
Reason Client Taking	**The client needs vitamin K to prevent hemorrhagic disease or vitamin K deficiency bleeding in the neonate.**	**The client needs erythromycin ointment to prevent eye conjunctivitis, or pink eye, during the first month of life. The specific name for newborn conjunctivitis is ophthalmia neonatorum (ON).**	**The client needs the first dosage of hepatitis B to protect and prevent the infant from exposure to the hepatitis B virus.**		
Contraindications (2)	**Hypersensitivity to vitamin K, jaundice**	**Hypersensitivity to erythromycin, astemizole therapy**	**Hypersensitivity to hepatitis B vaccine, immunosuppressed or ill infant**		
Side Effects/Adverse Reactions (2)	**Anaphylaxis, respiratory arrest**	**Hepatotoxicity, ventricular**	**Fever, anaphylaxis**		

		arrhythmias			
Nursing Considerations (2)	**Know that severe adverse reactions such as anaphylaxis and respiratory arrest may occur with the administration of vitamin K.** **Make sure to protect vitamin K solution from light exposure due to vitamin K being light sensitive.**	**Use erythromycin cautiously in patients with impaired liver function.** **Monitor newborn eyes for irritation, redness, or any other abnormalities an hour or so after erythromycin administration.**	**Monitor for signs of an allergic reaction such as hives, rash, or respiratory distress.** **Apply a clean bandage to the injection site after administration.**		
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Take baseline vitals especially heart rate and respiratory rate. Assess neonate for any signs of bleeding such as bruising, hematoma, or petechiae.** **Take baseline CBC labs and pay close attention to red blood cell and platelet count.**	**Assess newborn's eyes before erythromycin administration.** **Assess neonate for erythromycin hypersensitivity before administration.**	**Obtain baseline vitals, especially temperature, heart rate, and respiratory rate.** **Obtain baseline white blood cell count and monitor for any present illness before administration.**		
Client Teaching needs (2)	**Explain to the birth mother that the neonate needs a 1 mg intramuscular injection of vitamin K to prevent abnormal bleeding like a hemorrhagic disease.**	**Explain to the patient's parents that erythromycin is necessary to prevent pink eye in newborns.** **Teach the patient's parents to report a potential allergic reaction such as**	**Teach the patient's parents to observe for signs of anaphylaxis such as rash, hives, and respiratory distress.** **Teach the patient's parents that the hepatitis**		

	Explain and demonstrate to the patient's parents how to administer an IM injection in the thigh of the neonate.	**hives, rash, or difficulty breathing in the neonate.**	**B vaccine is a three-series vaccination. The infant will need to go to the primary pediatrician to receive the other two doses to be fully vaccinated.**		

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2021). *2021 Nurse's drug handbook* (19th ed.). Jones & Bartlett Learning.

Newborn Assessment (20 points)

Area	Your Assessment	Expected Variations and Findings *This can be found in your book on page 645*	If assessment finding different from expectation, what is the clinical significance?
Skin	**The newborn's skin is smooth, flexible, a normal skin turgor of fewer than 1.5 seconds, well-hydrated, warm, and intact. Neonate was mainly bald, but some lanugo seen on the face, shoulders, and back.**	**The newborn's skin is smooth, flexible, has a good skin turgor, hydrates, is warm, intact, and minuscule presence of some lanugo on the back, shoulders, and face.**	****Not applicable**
Head	**The Head is symmetric and round based on ethnicity, gender, age, and correlation with larger body size. Macrocephaly is present due to the infant's large for gestational age (LGA) classification status. Skull palpation reveals smooth and fused skull minus over the fontanels, molding areas, and sutures.**	**The infant has a symmetric and round head that correlates with ethnicity, gender, age, and body size.**	**Macrocephaly is a common abnormality in some infants. In this infant's case, the head circumference at birth measured 37 cm, which is greater than the 90th percentile. Although the infant has macrocephaly, it is an expected result of an LGA neonate.**
Fontanels	**The infant's anterior fontanel measures approximately 6 cm, and the posterior fontanel measures 1**	**The anterior fontanel measures between 4 to 6 cm, and the posterior fontanel measure**	****Not applicable**

	cm. Palpation of fontanels reveals that fontanels are soft, flat, and open. The anterior fontanel is diamond-shaped, whereas the posterior fontanel is more triangular and smaller in size.	**0.5 to 1 cm. The anterior fontanel is diamond-shaped and larger than the posterior.**	

Face	**The newborn's face and cheeks are full and symmetric when resting and crying. No bruising or reddened areas assessed.**	**The newborn's face and cheeks are full, and all facial features are symmetrical when crying or at rest.**	****Not applicable**
Eyes	**The eyes are clear and symmetrical. No edema of the eyelids noted. Blink reflex assessed, and the infant blinked immediately, which is a normal finding. Pupillary reflex assessed bilaterally as normal because pupilar are equal, round, and reactive to light. The infant's gaze is midline but uncoordinated due to immature muscular eye control, which is normal. Eyes are online with ears.**	**The eyes of the neonate are clear and symmetrical. Some edema of the lids and sterile discharge is present. Blink reflex is quick, and pupillary reflex is equal, round, and reactive to light bilaterally. The infant's gaze is midline but uncoordinated; uncoordinated gaze will disappear at three to six months of age. Eyes are online with ears.**	****Not applicable**
Nose	**The nose is small, narrow, symmetrical, midline placement. The infant's nares are patent, and the septum is intact. Nostrils are of equal size and patent. Some mucosal discharge is present. Newborn sneezes and breaths easily through the nose. Assessment of ability to smell is**	**The newborn's nose is small, narrow, symmetric, and midline. The nares are patent with intact septum. Nostrils are equal, and some mucous discharge noted. The newborn can smell, sneeze, and breathe easily through the nose.**	****Not applicable**

	good and present.		

Mouth	**Male infant's lips are intact, midline, and move symmetrically. No lesions present. The lips are moist and pink. In the inside of the infant's mouth, normal mandible alignment, intact soft and hard palate, sucking pads inside cheeks, midline uvula, and free moving tongue assessed. However, the tongue has abnormal heart shape tips, and the lingual frenulum is short. The newborn's gagging reflex, swallowing, and sucking reflexes are normal and present. The mucosal lining inside the mouth is pink, moist, and has minimal saliva present.**	**The mouth is midline, symmetric, and hard and soft palates are intact. No lesions present on lips. Lips are moist and pink. Inner mucosae are pink and moist with minimal saliva. Mandible aligned, sucking pads identified inside cheeks, midline uvula, and free moving tongue. The infant's gagging, swallowing, and sucking reflexes are all present.**	**Due to the infant's abnormal tongue shape and lingual frenulum, breastfeeding may be difficult.**
Ears	**Infant's ears are soft and pliable with an easy and quick recoil after folding and release. Ears are in alignment with the outer canthi of the eyes. Newborn hearing is present.**	**The ears are soft and pliable with quick recoil when folded and then released upon assessment. Hearing is present. Ears in alignment with the outer canthi of the eyes.**	****Not applicable**
Neck	**The neck is short, creased, freely moves in all**	**The neck is short, creased, moves freely in all**	****Not applicable**

	directions, and the baby holds the head midline. Clavicles are straight and intact.	**directions, and the baby holds the head in the midline position. Clavicles are straight and intact.**	
Chest	**The infant's chest is round, symmetric, and 2 cm larger than the head circumference. Engorged nipples without any discharge present.**	**Newborn's chest is round, symmetric, and 2 to 3 cm smaller than the head circumference. Engorged nipples with some white discharge present.**	**Due to the infant's LGA classification, it is expected that the chest is larger than the head.**
Breath Sounds	**The normal breath sounds auscultated in the anterior and posterior of the lungs bilaterally. Little to no difference between inhalation and exhalation.**	**Normal breath sounds are heard anteriorly and posteriorly, bilaterally in the lungs. Little to no difference between inspiration and expiration.**	****Not applicable**

Heart Sounds	**S1 and S2 heart sounds auscultated. The maximal impulse is located laterally to the midclavicular line at the fourth intercostal space.**	**S1 and S2 heart sounds auscultated. The maximal impulse is located laterally to the midclavicular line at the fourth intercostal space.**	****Not applicable**
Abdomen	**The abdomen is protuberant and soft but not distended. Abdominal movement synchronizes with respirations.**	**The abdomen is protuberant contour and soft but not distended. Abdominal movement synchronizes with respirations.**	****Not applicable**
Bowel Sounds	**Bowel sounds auscultated clockwise in all four quadrants, no masses or tenderness assessed upon palpation of all four quadrants.**	**Bowel sounds auscultated clockwise in all four quadrants, no masses or tenderness assessed upon palpation of all four quadrants.**	****Not applicable**
Umbilical Cord	**The umbilical cord has two arteries and one vein for a total of three vessels. No bleeding, infection, inflammation, redness, swelling, drainage, or granulomas present at the umbilical cord site.**	**The umbilical cord has three vessels. No bleeding, infection, inflammation, redness, swelling, drainage, or granulomas present at the umbilical cord site.**	****Not applicable**
Genitals	**Since the male neonate has an uncircumcised penis, the foreskin is present and covers the glans. The meatus is present**	**For a male infant, the glans is smooth, and located at the center of the penis's tip is the meatus. The scrotum is large, rugae present,**	****Not applicable**

	and midline at the tip of the glans. The scrotum is large, rugae present, symmetrical, and the color is normal for ethnicity. Lastly, upon palpation the scrotum, the testes are firm, smooth, and equal in size bilaterally.	**symmetrical, and the color is normal for ethnicity. The testes are firm, smooth, and equal in size bilaterally.**	

Anus	**The anus is patent as the infant eliminates meconium without difficulty. No annal fissures or fistulas present.**	**The anus is patent due to the passage of meconium. No annal fissures or fistulas assessed.**	****Not applicable**
Extremities	**The lower and upper extremities are equal in length, symmetric skin folds, and symmetric with free movement. No dimple or tuft is present on the infant's spine. Ortolani Maneuver and Barlow Maneuver completed, and no clicks or presence of hip dislocation was present.**	**Both lower and upper extremities are equal in length and symmetric. Extremities symmetric with newborn's free movement, no clubfoot or congenital hip dislocation assessed.**	****Not applicable**
Spine	**No dimple or tuft is present on the infant's spine. The spine appears straight, flat, and easily flexed when the neonate is in the prone position.**	**There is no tuft or dimple on the spine present. The spine appears straight, flat, and easily flexed when the neonate is in the prone position.**	****Not applicable**
Safety • **Matching ID bands with parents** • **Hugs tag** • **Sleep position**	**The newborn has a matching ID band with mother and hugs tag present in case of infant abduction— newborn baby placed on the back to sleep at all times.**	**Newborn matching ID and hugs tag present and working. Newborn positioned on the back for any rest period, nap, or sleep. Infant crib is safe, sturdy, and kept away from**	****Not applicable**

	Infant bed assessed as sturdy, safe, and away from blinds and cords in the hospital room. The infant is not left alone in the hospital room at any time.	**blinds or cords in the hospital room. The infant was never left alone in the hospital room for any duration.**	

Complete the Ballard Scale grid at the end to determine if this infant is SGA, AGA, or LGA—be sure to show your work

What was your determination? My determination of the infant resulted in a score of 48. I rounded up to a score of 50, which indicates a gestational age of 44 weeks. Regarding neuromuscular maturity, the infant scored a 4 in each category: posture, square window, arm recoil, popliteal angle, scarf sign, and heel to ear. So, 4 x 6 is equivalent to a score of 24 for neuromuscular maturity. Now for physical maturity, the male neonate scored a 4 in each category: skin, lanugo, plantar surface, breast, eye/ear, and genitals (male). So, 4 x 6 equals 24. In total, 24 + 24 equals 48, which when rounding comes to a score of 50. As mentioned above, a score of 50 is equivalent to a gestational age of 44 weeks. Based upon the Ballard Scale grid, I determined that the male infant is LGA or large for gestational age. To further support the LGA classification, the weight of 4,695 g, head circumference of 37 cm, and chest circumference of 39 cm. the male neonate are all above the 90th percentile, which is indicative of an infant that is large for gestational age.

Are there any complications expected for a baby in this classification?

There are many complications for a baby in the large for gestational age (LGA) classification, such as hypoglycemia, respiratory distress, obesity, heart disease, and jaundice.

Vital Signs, 3 sets (6 points)

Time	Temperature	Pulse	Respirations
Birth	**99**	**156**	**64**
4 Hours After Birth	**98.9**	**133**	**42**
At the Time of Your Assessment	**98.5**	**134**	**49**

Vital Sign Trends: The vital signs of the male neonate are all consistent and within normal limits except for the respiratory rate of 64 at birth. However, continuous monitoring will still occur.

Pain Assessment, 1 set (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	**Neonatal Infant Pain Score (NIPS)**	**All extremities, chest, abdomen, back, face, and head**	**0/7**	**Not applicable as the male neonate has no pain.**	**None as the male neonate has no pain.**

Summary of Assessment (4 points)

Discuss the clinical significance of the findings from your physical assessment:
****See the example below****

On October 11, 2021, at 12:15 p.m., the delivery of a male neonate via scheduled cesarean section occurred. The male infant was 10 lbs. 5.6 oz. with a head circumference of 37 cm, length of 54.6 cm, and a chest circumference of 39 cm, all at birth. The APGAR score at one minute was 8, and then at five minutes, the APGAR score increased to a 9. The infant's estimated due date (EDD) was 10/02/2021, but the infant was born at forty-one weeks and two days on

10/11/2021. Some prenatal complications were macrosomia, pericardial effusion, BMI of 28.19, and high white blood cell counts. The male neonate due to the macrosomia was classified as large for gestational age (LGA) due to the head circumference, weight, and chest circumference being more significant than the 90th percentile. All labs were as expected and within normal limits. The physical assessment was also as expected and within normal limits, minus the heart-shaped tip of the tongue and short lingual frenulum assessed on the male infant. The last set of vitals consisted of a temperature of 98.5, a pulse of 134, and respirations of 49; all vitals were within normal limits. No pain assessed in the infant utilizing the Neonatal Infant Pain Score (NIPS). The male neonate is breastfeeding and nursing excellently every two to three hours with periods of forty to forty-five minutes. The LATCH score of the male infant is a 9/10, which is impressive and better than expected. Plans of discharge include the infant going home with the mother and husband involved later today, 10/13/2021. A scheduled circumcision procedure will occur tomorrow, 10/14/2021, with the primary pediatrician of the infant.

This neonate was delivered on 5.15.14 at 0522 by normal spontaneous vaginal delivery (NSVD). Nuchal cord x1. Apgar scores 1/3/9. EDD 5.10.14 by US. Dubowitz revealed neonate is 39 2/7 weeks and LGA. Prenatal hx complicated by PIH and GDM (diet controlled). Birth weight 9 lbs 4 ozs (4440 grams), 21" long (53.34 cms). Upon assessment all systems are within normal limits. Last set of vitals: 38.4/155/48. BS x3 after delivery WNL with lowest being 52. Neonate is breastfeeding and nursing well with most feedings 20"/20" q2-3 hrs. Bilirubin level at 24 hours per scan was 4.9. Neonate expected to be discharged with mother later today and to see pediatrician in the office for first well baby check within 48 hours.

Nursing Interventions and Medical Treatments for the Newborn (6 points)

Nursing Interventions and Medical Treatments (Identify nursing interventions with "N" after you list them, identify medical treatments with "T" after you list them.)	**Frequency**	**Why was this intervention/ treatment provided to this patient? Please give a short rationale.**
The nurse changed the male neonate's soiled diaper and	Diaper changes occur each time	Soiled diapers need changing to prevent skin breakdown, prevent the spread of

replaced the soiled diaper with a clean, new diaper. **(N)**	meconium or urine is present in the diaper. The nurse checks every hour or so for soiled diapers.	bacteria from stool and urine, and adequately care for and comfort the infant. Leaving a soiled diaper on an infant is unsanitary and unhealthy.
The nurse assists the mother with proper breastfeeding position. **(N)**	The nurse only assisted the mother with proper breastfeeding position once.	The mother improperly cradled the infant's head, preventing the infant from adequately suckling the breast for milk. The nurse adjusted the mother's arm, which helped the infant feed excellently to get the nutrition needed from the breastmilk.
The nurse provides a quiet, calm environment for the male neonate and mother to rest. **(N)**	The nurse provides a quiet, calm environment always in the hospital room.	A quiet, calm environment is vital for rest and sleep for both the mother and infant. A quiet, calm environment promotes rest and bonding between the mother, infant, and father.
The nurse administers single 1 mg dose of vitamin K. **(M)**	The nurse administers single dose only of vitamin K.	Vitamin K is imperative for preventing issues such as vitamin K deficiency bleeding or hemorrhagic bleeding disease. Also, vitamin K aids in helping with blood clotting to prevent bleeding.

Discharge Planning (2 points)

Discharge location: The male neonate will go home with the mother to the shared home with the father or husband involved.

Equipment needs (if applicable): The male neonate needs a proper car seat before discharge. Also, the mother needs a breast pump before discharge to help with the secretion and excess storage of breast milk for the male infant.

Follow up plan (include plan for newborn ONLY): The male neonate has a scheduled circumcision procedure for 10/14/2021.

Education needs: Parents of the neonate need education on proper breastfeeding with bottle formulas, proper car seat etiquette and safety, and proper crib and positioning safety for the male neonate.

Nursing Diagnosis (30 points)
Must be NANDA approved nursing diagnosis and listed in order of priority
Two of the Nursing Diagnoses must be education related i.e. the interventions must be education for the client."

2 points for correct priority

Nursing Diagnosis (2 pt each) Identify problems that are specific to this patient. Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational (1 pt each)** Explain why the nursing diagnosis was chosen	**Intervention/Rational (2 per dx) (1 pt each)** Interventions should be specific and individualized for his patient. Be sure to include a time interval such as Assess vital signs q 12 hours." List a rationale for each intervention and using APA format, cite the source for your rationale.	**Evaluation (1 pt each)** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. At risk for hypoglycemia related to the male infant's classification of large for gestational age (LGA) as evidenced by weight of 4.695 gm, a length of 54.6 cm, and a head circumference of 37 cm all at birth; the weight, length, and head circumference of the male neonate are all above the 90th percentile.	**The risk for hypoglycemia is the number one problem for the male neonate. Usually, LGA babies have higher insulin levels, leading to hypoglycemia once the umbilical cord is cut (Swearingen & Wright, 2018). If hypoglycemia reaches dangerously low levels, other issues**	**1. Monitor the male infant's blood sugar every hour to accurately measure blood glucose levels.** **Rationale: The nurse must explain to the mother and husband why the blood sugar levels are essential and how blood glucose testing occurs. Blood glucose for the male infant needs close monitoring to prevent dangerously low levels of glucose. As mentioned prior, if glucose levels reach deficient levels, brain injury, seizures, and heart failure may occur (Swearingen & Wright, 2018). Blood**	**The patient's parents respond well, comprehend, comprehend blood glucose testing, and have no other questions regarding blood glucose testing. Male infants' blood glucose levels are tested every hour by the nurse. Goal met. No modifications are needed.** **The patient's parents comprehend the signs and symptoms of hypoglycemia easily one time via education from the nurse. No further questions asked. Goal**

	such as brain function, brain injury, seizures, and even heart failure may occur (Swearingen & Wright, 2018).	**glucose monitoring is a simple, quick, and effective way to identify levels and determine what other interventions are necessary to prevent levels from declining more (Swearingen & Wright, 2018). Blood glucose testing for an infant is a test that requires heel stick access to obtain a blood sample to identify the exact amount of blood glucose circulating throughout the infant's body (Swearingen & Wright, 2018). It is a simple poke that may cause the infant some discomfort but is for the overall benefit of the infant to obtain a blood glucose reading (Swearingen & Wright, 2018).** **2. Explain the signs and symptoms of hypoglycemia as many times as necessary to parents to report findings to the healthcare team. Verbal communication and an educational sheet about hypoglycemia would be sufficient for education.** **Rationale: Some significant signs of hypoglycemia in infants are irritability, lethargy, hunger, and pallor (Swearingen & Wright, 2018). The signs and**	**met. No modifications are needed.**

		symptoms of hypoglycemia are vital knowledge for the infant's parents, so if the signs and symptoms occur, the parents may immediately report to a provider or nurse (Swearingen & Wright, 2018). The parents knowing the signs and symptoms of hypoglycemia may save their infant's life, especially in severe cases of low blood glucose levels (Swearingen & Wright, 2018).	
2. At risk for insufficient knowledge about malnutrition related to mother producing colostrum as evidenced by mother and father involved asking multiple questions and low comprehension.	**Both the mother and father of the male infant did not understand that it takes at least three to five days for a mother to produce actual breast milk instead of colostrum (Swearingen & Wright, 2018). The parents asked questions, and both asked if there was even a point to breastfeeding the infant with colostrum.**	**1. Teach the mother and father the importance of breastfeeding with colostrum. Education completed via communication and with a detailed pamphlet about colostrum and breastfeeding as many times as needed.** **Rationale: Colostrum is vital to an infant because it is the first source of nutrients after birth (Swearingen & Wright, 2018). The infant, before birth, only received nutrients through the umbilical cord (Swearingen & Wright, 2018). Now, without the umbilical cord, the infant needs another source of nutrients, the mother's colostrum (Swearingen & Wright, 2018). Not only is**	**The patient's parents respond well to the education and have no more questions. Comprehension is excellent. Goal met. No modifications are needed.** **The patient's parents respond well and with understanding to the education topic. Parents report comprehending the topic well. Goal met. No modifications are needed.**

		colostrum sufficient until actual breastmilk production occurs, but colostrum also offers passive immunity, which is vital to infant health and protection (Swearingen & Wright, 2018). **2. Educate the mother and father about how long it takes for true breastmilk to develop and why breastfeeding is still important until then as much as needed.** **Rationale: Although the mother only produces colostrum, it is still worth feeding and pumping for the infant (Swearingen & Wright, 2018). The stimulation of an infant suckling or the extraction of colostrum from a pump is vital to aid the mother in producing breast milk quicker for the infant (Swearingen & Wright, 2018). Typically, mothers produce true breastmilk from three to five days after the birth of a newborn (Swearingen & Wright, 2018). The more the infant suckles or the mother pumps, the quicker the breastmilk will appear, and the better for the growth and recovery of the infant (Swearingen & Wright, 2018).**	

3. At risk for feeding difficulty related to abnormal heart-shaped tongue tip and short lingual frenulum as evidenced by physical assessment of the male infant.	**Knowledge about physical issues like an abnormally formed tongue and frenulum is vital to understand why the infant may not feed well. The tongue is a crucial part of the infant suckling and latching onto the mother's breast properly during feedings (Swearingen & Wright, 2018).**	**1. Assess LATCH score of male infants each time the infant feeds approximately every two to three hours. Verbalize LATCH score assessment as much as needed for education completion. Along with verbalization, a handout chart of the LATCH score rating and categories would tremendously help parent comprehension.** **Rationale: The LATCH score consists of a scale from 0 to 10 to assess how well an infant feeds (Swearingen & Wright, 2018). A low LATCH score indicates poor feeding, whereas a high score indicates good feeding (Swearingen & Wright, 2018). Due to the male infant having an abnormal heart-shaped tip of the tongue and a short lingual frenulum, the score may fall on the low side of the LATCH assessment (Swearingen & Wright, 2018). The nurse must assess the LATCH score every feeding to ensure the infant receives the nutrients needed for growth and recovery after birth (Swearingen & Wright, 2018).** **2. Aid the mother in proper positioning of the**	**The nurse assesses the LATCH score efficiently at a 9/10. The nurse identifies that despite abnormal tongue and lingual frenulum, the infant feeds well. Parents respond well to the explanation of LATCH scoring and do not mind the nurse assessing each time the male infant feeds. Goal met. No modifications are needed.** **The nurse shows the mother and father of the infant how to properly hold the infant and ensure the infant is latching to the nipple correctly. Mother teaches back education by successfully cradling the infant's head and ensuring proper latching to the mother's nipple. Mother is happy with successful teaching. Goal met. No modifications are needed.**

		infant to promote the best angle for the infant to feed with a strange tongue and lingual frenulum as much as needed. Education completed through tactile teaching and verbalization **Rationale: Showing the mother the best feeding position helps the infant greatly (Swearingen & Wright, 2018). Proper positioning results in the best feeding results and aids infant growth, development, and recovery (Swearingen & Wright, 2018). The first few days after birth are vital, and proper nutrients are necessary for the infant (Swearingen & Wright, 2018). The only nutrients the infant indeed receives are from the colostrum and then the breastmilk of the infant's mother (Swearingen & Wright, 2018). The nurse must demonstrate proper cradling of the arm using the inside crook of the elbow and ensuring that the infant is latching correctly to the nipple of the mother's breast (Swearingen & Wright, 2018).**	
4. At risk for deficient knowledge	**Although the patient has a bilirubin level**	**1. Educate the patient's parents about the dangers of high bilirubin**	**The nurse educates the patient's parents to listen intently and**

about jaundice related to low comprehension and many questions asked about jaundice in neonates.	**of 5, which is normal, it is essential to know the dangers of jaundice (Swearingen & Wright, 2018). The infant may not present with jaundice in the hospital, so the parents must know the danger and signs and symptoms of jaundice in the infant (Swearingen & Wright, 2018). The more knowledgeable the parents are about jaundice, the more likely jaundice identification and reporting may occur.**	**levels in an infant as much as needed. Education completed via verbalization and an educational handout.** **Rationale: Infants are at high risk for jaundice due to the underdevelopment of the liver and the high number of red blood cells in the infant's body (Swearingen & Wright, 2018). Jaundice may appear anywhere from two to four days after birth (Swearingen & Wright, 2018). Jaundice is a highly harmful abnormality to infants because jaundice may cause permanent brain injury, fever, poor feeding, hearing loss, or even coma (Swearingen & Wright, 2018). The nurse must emphasize the seriousness of jaundice in an infant to the patient's parents.** **2. Teach the patient's parents about the signs and symptoms of high bilirubin levels in an infant to observe as many times as needed. Education completed vial verbalization and an educational handout.** **Rationale: Recognizing signs and symptoms of jaundice in an infant may save a life (Swearingen &**	**comprehend education well with no further questions. Goal met. No modifications are necessary.** **The nurse educates parents successfully, and parents can teach back the signs and symptoms of jaundice without hesitation. Parents respond well and positively to education. Goal met. No modifications are needed.**

		Wright, 2018). The nurse must explicitly inform the infant's parents about the importance of knowing the signs and symptoms of jaundice (Swearingen & Wright, 2018). The primary signs and symptoms of jaundice are yellowing the skin, yellowing the whites of the eyes (sclera), difficult waking or rouse, and high-pitched cries (Swearingen & Wright, 2018).	

Other References (APA):

Swearingen, P. L., & Wright, J. (2018). *All-in-one nursing care planning resource: Medical-surgical, pediatric, maternity, and psychiatric-mental health* (5th ed.). Mosby.

Ballard Gestational Age Scale

Neuromuscular Maturity

Score	–1	0	1	2	3	4	5
Posture							
Square window (wrist)	 > 90°	 90°	 60°	 45°	 30°	 0°	
Arm recoil		 180°	 140–180°	 110–140°	 90–110°	 < 90°	
Popliteal angle	 180°	 160°	 140°	 120°	 100°	 90°	 < 90°
Scarf sign							
Heel to ear							

Physical Maturity

Skin	Sticky, friable, transparent	Gelatinous, red, translucent	Smooth, pink; visible veins	Superficial peeling and/or rash; few veins	Cracking, pale areas; rare veins	Parchment, deep cracking; no vessels	Leathery, cracked, wrinkled
Lanugo	None	Sparse	Abundant	Thinning	Bald areas	Mostly bald	
Plantar surface	Heel-toe 40–50 mm: –1 < 40 mm: –2	> 50 mm, no crease	Faint red marks	Anterior transverse crease only	Creases anterior 2/3	Creases over entire sole	
Breast	Imperceptible	Barely perceptible	Flat areola, no bud	Stippled areola, 1–2 mm bud	Raised areola, 3–4 mm bud	Full areola, 5–10 mm bud	
Eye/Ear	Lids fused loosely: –1 tightly: –2	Lids open; pinna flat; stays folded	Slightly curved pinna; soft; slow recoil	Well curved pinna; soft but ready recoil	Formed and firm, instant recoil	Thick cartilage, ear stiff	
Genitals (male)	Scrotum flat, smooth	Scrotum empty, faint rugae	Testes in upper canal, rare rugae	Testes descending, few rugae	Testes down, good rugae	Testes pendulous, deep rugae	
Genitals (female)	Clitoris prominent, labia flat	Clitoris prominent, small labia minora	Clitoris prominent, enlarging minora	Majora and minora equally prominent	Majora large, minora small	Majora cover clitoris and minora	

Maturity Rating

Score	Weeks
–10	20
–5	22
0	24
5	26
10	28
15	30
20	32
25	34
30	36
35	38
40	40
45	42
50	44

CLASSIFICATION OF NEWBORNS (BOTH SEXES) BY INTRAUTERINE GROWTH AND GESTATIONAL AGE [1,2]

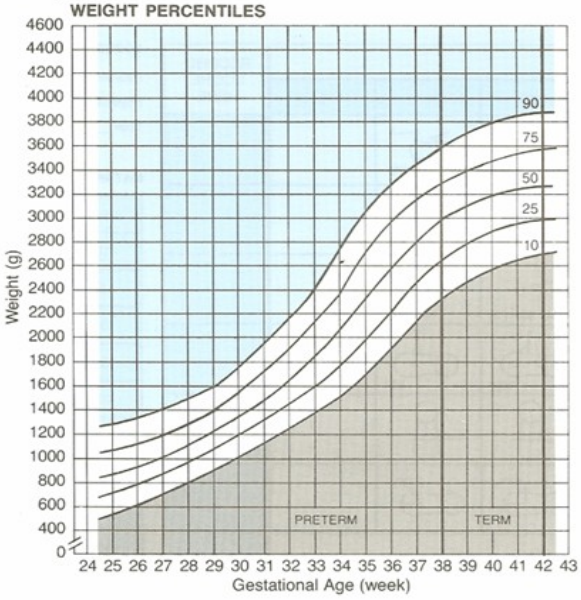
NAME _____ DATE OF EXAM _____ LENGTH _____

HOSPITAL NO. _____ SEX _____ HEAD CIRC. _____

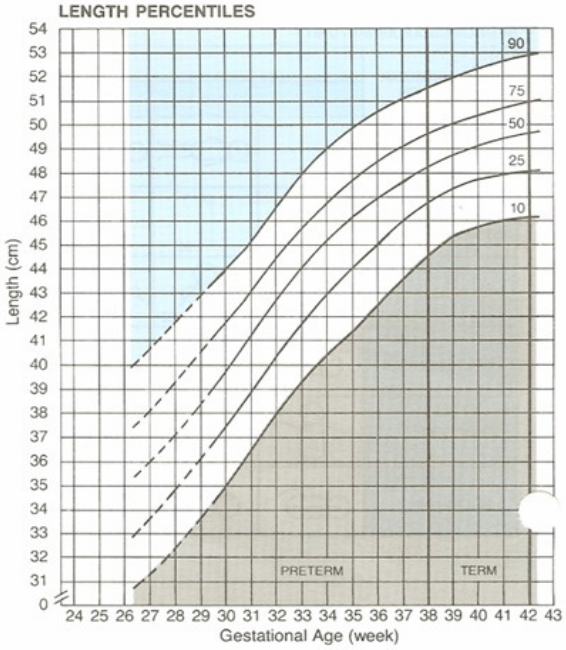
RACE _____ BIRTH WEIGHT _____ GESTATIONAL AGE _____

DATE OF BIRTH _____

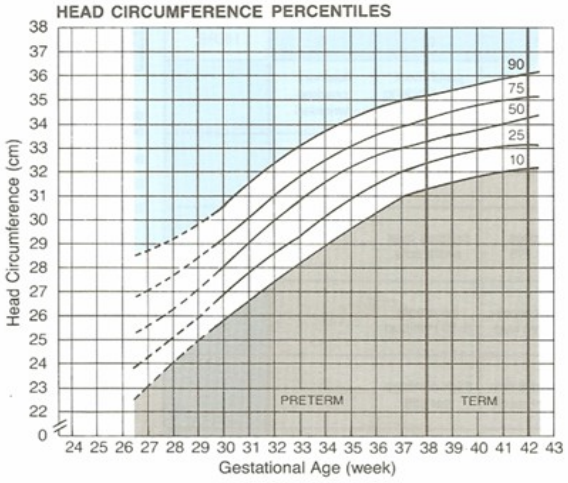
WEIGHT PERCENTILES



LENGTH PERCENTILES



HEAD CIRCUMFERENCE PERCENTILES



CLASSIFICATION OF INFANT*	Weight	Length	Head Circ.
Large for Gestational Age (LGA) (>90th percentile)			
Appropriate for Gestational Age (AGA) (10th to 90th percentile)			
Small for Gestational Age (SGA) (<10th percentile)			

*Place an "X" in the appropriate box (LGA, AGA or SGA) for weight, for length and for head circumference.

References
1. Battaglia FC, Lubchenco LO: A practical classification of newborn infants by weight and gestational age. J Pediatr 1967; 71:159-163