N432 Newborn Care Plan

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N432: Maternal-Newborn Care

Clinical Instructor Name

03/05/2024

Demographics (10 points)

Date & Time of Clinical Assessment 2/29/2024 0730	**Patient Initials** Boy MC	**Date & Time of Birth** 2/28/2024 1653	**Age (in hours at the time of assessment)** 15 hours
Gender Male	**Weight at Birth** 2650 gm 5 lbs 12.4 oz	**Weight at Time of Assessment** 2564 gm 5 lbs 10.5 oz	**Age (in hours) at the Time of Last Weight** 4 hours
Race/Ethnicity White	**Length at Birth** 49.5 cm 19.5 inches	**Head Circumference at Birth** 32 cm 12.6 inches	**Chest Circumference at Birth** 28.5 cm 11.22 inches

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: G2T2P0A0L2

When prenatal care started: 8/18/2023

Abnormal prenatal labs/diagnostics:

8/23/2024 RDW **11.8%** (12.0-15.0%)

8/23/2024 RDW-SD **37.7 fL** (38.0-52.0 fL).

12/27/2024 WBC **11.07 10^3/uL** (4.00-11.00 10^3/uL)

12/27/2024 HCT **33.7%** (34.0-47.0%)

12/27/2024 MCHC **35.3 g/dL** (31.0-35.0 g/dL)

12/27/2024 RDW **11.9%** (12.0-15.0%).

12/27/2024 MPV **12.2 fL** (9.0-12.0 fL)

2/21/2024 Glucose **112 mg/dL** (74-100 mg/dL)

2/21/2024 Sodium **134 mmol/L** (136-145 mmol/L)

2/21/2024 CO2 **20.0 mmol/L** (22.0-29.0 mmol/L)

2/21/2024 Calcium **8.8 mg/dL** (8.9-10.6 mg/dL)

2/21/2024 Albumin **2.8 g/dL** (3.5-5.0 g/dL)

2/21/2024 Alkaline Phosphate **201 u/L** (40-105 u/L)

2/21/2024 AST **53 u/L** (5-34 u/L)

2/21/2024 HCT **32.8%** (34.0-47.0%)

2/22/2024 Sodium **135 mmol/L** (136-145 mmol/L)

2/22/2024 Chloride **108 mmol/L** (98-107 mmol/L)

2/22/2024 Calcium **8.3 mg/dL** (8.9-10.6 mg/dL)

2/22/2024 Albumin **2.5 g/dL** (3.5-5.0 g/dL)

2/22/2024 Alkaline Phosphate **198 u/L** (40-105 u/L)

2/22/2024 HCT **32.7%** (34.0-47.0%)

2/26/2024 Glucose **68 mg/dL** (74-100 mg/dL)

2/26/2024 Sodium **135 mmol/L** (136-145 mmol/L)

2/26/2024 CO2 **19.0 mmol/L** (22.0-29.0 mmol/L)

2/26/2024 Albumin **3.0 g/dL** (3.5-5.0 g/dL)

2/26/2024 Alkaline Phosphate **218 u/L** (40-105 u/L)

Prenatal complications: No prenatal complications

Smoking/alcohol/drug use in pregnancy: The patient was a former smoker, she quit in 2017. The patient lightly uses tobacco. The patient stated she “occasionally drinks 1-2 glasses of wine on the weekends.”

Labor History of Mother:

Gestation at onset of labor: 37 weeks

Length of labor: Stage 1 (3 hours 7 minutes) Stage 2 (0 hours 6 minutes) Stage 3 (0 hours 5 minutes)

ROM: AROM 2/28/2024 1618

Medications in labor: Epidural and misoprostol

Complications in labor and delivery: No complications, but the mother did have gestational hypertension

Family History Pertinent to infant: Maternal grandmother (hypertension and hypothyroidism)

Paternal grandmother (leukemia)

Paternal grandfather (obesity, type 2 diabetes, and quad bypass)

Social History (tobacco/alcohol/drugs) Pertinent to infant: Mother is a former smoker and occasionally uses tobacco and drinks.

Father/Co-Parent of Baby Involvement: Yes

Living Situation of Family: The patient will go home and live with his mother, father, and 2 older siblings.

Education Level of Parents (If applicable to parents' learning barriers or care of infant):

Not applicable because it was not documented in the chart.

Birth History (10 points)

Length of Second Stage of Labor: 0 hours 6 minutes

Type of Delivery: Spontaneous vaginal

Complications During Birth: No complications

APGAR Scores:

1 minute: 8

5 minutes: 9

Resuscitation methods beyond the normal needed: No

Intake and Output (18 points)

Intake

The mother was not breastfeeding, the baby had an NG tube.

Feeding frequency: Every 2 to 3 hours PRN if baby is not eating by mouth. The patient had a low blood sugar early this morning and the patient was not wanting to eat. So, an NG tube was placed at 0610 on 02/29/2024. The patient got one tube feeding then had another sugar check. Sugar was good, and the NG tube was left in to see how the baby did with oral feeding.

Length of feeding session: Baby's first tube feeding took 10 minutes

One or both breasts: Baby's first tube feeding he ate 15 mL

If bottle feeding:

Formula type or Expressed breast milk (EBM): 20 Cal formula

Frequency: Every 2 to 3 hours

Volume of formula/EBM per session: 10 mL

Output

Void

Age (in hours) of first void: 5 hours

Number of voids in 24 hours: The patient was not 24 hours yet, but has void 4 times

Stool

Age (in hours) of first stool: 5 hours

Type: soft and liquid

Color: Meconium brownish yellow

Number of times in 24 hours: 5

Percentage of weight loss at time of assessment: -3.24%

2564-2650= -86

-86/2650= -3.24%

****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?

Up to 3 to 4 days a newborn can lose 10% of their birth weight (Ricci et al., 2021).

Is this neonate's weight loss within normal limits?

Yes

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.

Name of Test	Why is this test ordered for any infant?	Expected Results	Client's Results	Interpretation of Results
Blood Glucose Levels	A blood glucose test is done to check for hypoglycemia. Infants' blood sugars are typically lower than later in life,	60-99 mg/dL	42, 52, 32	Due to inadequate nutrition because the baby was not wanting to feed, the baby had low blood sugars.

	as they are transitioning to the outside world (Ricci et al., 2021).			
Blood Type and Rh Factor	The blood type and Rh factor are to determine the baby's blood type and to see if the baby's blood is also compatible or incompatible with the mothers (Ricci et al., 2021).	A, B, AB, O	A+	The baby's blood type is A+
Coombs Test	This test looks for antibodies that will attach the red blood cells ("Coombs Test," 2022).	Positive or Negative	Negative	The baby does not have any antibodies that will attach to his red blood cells.

Bilirubin Level (All babies at 24 hours) *Utilize bilitool.org for bilirubin levels*	A bilirubin test is done to determine if the baby's liver is producing enough or too much bilirubin (Ricci et al., 2021).	1-12 mg/dL (Pagana et al., 2022).	3.2 mg/dL	The baby's liver is producing enough bilirubin and is not at risk for jaundice.
Newborn Screen (At 24 hours)	The newborn screening is done to identify any conditions that could affect the child later in life ("Newborn screening portal," 2021).	Positive or Negative	**Results will not be available.**	No results due to the baby not being 24 hours old. If the baby were to test positive the medical team would look further into the result.
Newborn Hearing Screen	A hearing screen is done on a newborn to see if the infant has any hearing loss	Pass or fail	The baby was not 24 hours, so unable to perform test.	No results yet, the baby was not 24 hours.

	in the right or left ear (Ricci et al., 2021).			
Newborn Cardiac Screen (At 24 hours)	A cardiac screening is done on a newborn baby to help see if the baby has any heart conditions before they get sent home (“Screening for critical congenital heart defects,” 2022).	In the right hand ≥ 95% and in the foot ≤ 3% (“Critical congenital heart defects screening methods,” 2023).	The baby was not 24 hours, so unable to perform test.	No results yet, the baby was not 24 hours.

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

Coombs test. (2022, May 11). Cleveland Clinic. https://my.clevelandclinic.org/health/diagnostics/22978-coombs-test

Critical congenital heart defect screening methods. (2023, February 3). Centers for Disease Control and Prevention. https://www.cdc.gov/ncbddd/heartdefects/hcp.html

Newborn screening portal. (2021, November 29). Centers for Disease Control and Prevention. https://www.cdc.gov/newbornscreening/index.html

Pagana, K.D., Pagana T.J., & Pagana, T.P. (2022). *Mosby's Diagnostic and Laboratory Test Reference* (16th ed.) Mosby.

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

Screening for critical congenital heart defects. (2022, May 16). Centers for Disease Control and Prevention. https://www.cdc.gov/ncbddd/heartdefects/screening.html

Newborn Medications (10 points)

Contain in-text citations in APA format.

Brand/Generic	**Aquamephyton (Vitamin K)**	**Illotycin (Erythromycin Ointment)**	**Hepatitis B Vaccine**	**Dextrose 40% (Glutose) Gel**
Dose	1 mg	5 mg/g	0.5 mL	0.5 mg/kg
Frequency	One time	One time	One time	PRN
Route	Intramuscular injection	Ointment on both eyes	Intramuscular injection	Oral
Classification	Anticoagulant	Antibiotic	Vaccination	Hyperglycemic
Mechanism of Action	According to *Vitamin K*, (2024), it states, "Binding of calcium ions converts these clotting factors to their active form, which are then secreted from hepatocytes into the blood, restoring normal clotting function."	According to (NDH, 2023), it states, "binds with the 50S ribosomal subunit of the 70S ribosome in many types of aerobic, anaerobic, gram-negative, and gram-positive organisms."	According to *Hepatitis B Vaccine (Recombinant)*, (2024), it states, "Induces specific humoral antibodies against HBsAG (anti-HBs antibodies)."	According to *Glucose*, (2024), it states, "Glucose supplies most of the energy to all tissues by generating energy molecules ATP and NADH during a series of metabolism reactions called glycolysis."
Reason Client Taking	To help with clotting	To protect against infections in	To help protect the baby against	For hypoglycemia

		both eyes for the baby	Hepatitis B	
Contraindications (2)	1. Hypersensitivity to any of the components of the drug (“AquaMEPHYTON,” 2023). 2. Reactions to the medication because of benzyl alcohol (“AquaMEPHYTON,” 2023).	1. Hypersensitivity to macrolide antibiotics (NDH, 2023). 2. Lovastatin therapy (NDH, 2023).	1. Allergic reaction to neomycin (“Hepatitis B vaccines,” 2024). 2. Individuals who have a yeast allergy (“Hepatitis B vaccines,” 2024).	1. Hyperglycemia ("Dextrose gel and liquid,” 2023). 2. Hypersensitivity (“Dextrose gel and liquid,” 2023).
Side Effects/Adverse Reactions (2)	1. Flushing (“AquaMEPHYTON,” 2023). 2. Tachycardia (“AquaMEPHYTON,” 2023).	1. Abdominal cramps (NDH, 2023). 2. Fever (NDH, 2023).	1. Fever (“Hepatitis B vaccines,” 2024). 2. Vomiting (“Hepatitis B vaccines,” 2024)	1. Skin rash (“Dextrose gel and liquid,” 2023). 2. Fever (“Dextrose gel and liquid,” 2023).

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Nursing Considerations (2)	1. Inject the medication slowly (“AquaMETHYTON,” 2023). 2. Monitor the baby for any adverse reactions or toxicity (“AquaMETHYTON,” 2023).	1. Monitor for vomiting (NDH, 2023). 2. Monitor feedings, infant might be irritable (NDH, 2023).	1. Knowing when the first dose is given and when the second dose will be given 2. Knowing the site of injection	1. Store medication in a dry place (“Dextrose gel and liquid,” 2023). 2. Put tip of syringe in the back pocket of the infant’s mouth
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Make sure you have drawn up the correct dose, have all the supplies that you need ready and with you.	Monitor the infant’s eyes before and after applying ointment.	Make sure you have grabbed all the supplies that are needed.	Make sure you slowly push medication into the back pocket of the cheek and make sure the infant is swallowing well.
Client Teaching needs (2)	1. Teach the parents how to monitor for adverse reactions 2. Educate the parents on why vitamin K is important to administer	1. Educate parents about why the ointment is used 2. Only applied once right after birth and	1. Educate the family on why this vaccine is giving 2. Educ	1. Educate the family on why we are giving this medication 2. Educate the family on

		that is all	ate the family on the multiple dose series	adverse reactions and how to monitor for them

Medications Reference (1) (APA):

AquaMEPHYTON prescribing information, (2023, November 9). Drugs.com. https://www.drugs.com/pro/aquamephyton.html#s-34073-7

Dextrose gel and liquid. (2023, October 3). Drugs.com. https://www.drugs.com/cdi/dextrose-gel-and-liquid.html

Glucose, (2024, March 3). DRUGBANK Online. https://go.drugbank.com/drugs/DB09341

Hepatitis B vaccines. (2024, January 16). Centers for Disease Control and Prevention. https://www.cdc.gov/vaccinesafety/vaccines/hepatitis-b-vaccine.html#:~:text=Who%20Should%20Not%20Get%20Hepatitis,Has%20a%20yeast%20allergy

Hepatitis B vaccine (recombinant). (2024, March 2). DRUGBANK Online. https://go.drugbank.com/drugs/DB11627

Jones & Bartlett Learning. (2023). Nurse's drug handbook. Jones & Bartlett Learning.

Vitamin K1. (2024, February 20). DRUGBANK Online. https://go.drugbank.com/drugs/DB01022

Newborn Assessment (20 points)

The baby started out in the nursery and was moved back into the mother's room. The assessments for baby's are done at 0800 and 1600. They did not want to bother or wake the baby due to his glucose issues. I missed the physical exam for the baby, the night shift nurse

performed the assessment and moved the baby back into the room with the mother and I was not aware. Per Professor Kamradt.

Area	Your Assessment	Expected Variations and Findings **This can be found in your book on page 622 in Ricci, Kyle, & Carman 4th ed 2021.*
Skin	The baby's skin was warm, dry, and normal for ethnicity. Normal skin turgor and no lesions, rashes, or jaundice noted.	Expected findings of the skin should be dry, warm, smooth, flexible, normal turgor, adequate hydration (Ricci et al., 2021).
Head	The baby's head moved freely. There was some bruising and scalp swelling. As well as the suture were overlapping each other. The head circumference was 32 cm.	Expected findings for the head are normal for gender, age, and ethnicity. Should be symmetrical and normal head circumference measures 32 and 37 cm (Ricci et al., 2021).
Fontanels	The baby's fontanels were flat and soft.	Expected findings of the fontanels is the that the anterior fontanels should be diamond shaped and close at 18 to 24 months. The posterior fontanels should be triangle shaped and close at 6 to 12 weeks. The fontanels should she flat and soft (Ricci et al., 2021).
Face	The baby's face was symmetrical when crying and resting.	Expected findings of the face is the face is symmetrical at rest and crying and full cheeks (Ricci et al., 2021).
Eyes	The baby's eyes were symmetrical and sclera's white. No drainage or lesions noted.	Expected findings of the eyes are clear, white, symmetrical, and in line with the ears. No drainage or lesions (Ricci et al., 2021).
Nose	The baby's nose was midline, narrow, and small. The turbinates bilaterally were moist and pink.	Expected findings of the nose are midline, narrow, small, and can smell (Ricci et al., 2021).
Mouth	The baby's mouth was symmetrical. Hard and soft palate intact. Oral mucosa was moist and pink.	Expected findings of the mouth are symmetrical and midline. Hard palate and soft palate are intact. Mouth is moist and pink (Ricci et al., 2021).
Ears	The baby's ears were soft and symmetrical.	Expected findings for the ears are symmetrical and soft. When folding the ear in and releasing, a fast recoil happens (Ricci et al., 2021).
Neck 1/2/2024	The baby's neck was midline and moved freely.	Expected findings of the neck are creased, short, midline, and freely moveable (Ricci et al., 2021).
Chest	The baby's chest was symmetrical and round. The chest circumference was 28.5 m.	Expected findings of the chest are symmetrical, round, smaller than head (Ricci et al., 2021).

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

Vital Signs, 3 sets (6 points)

Time	Temperature	Pulse	Respirations
Birth	97.7 F	164	48
4 Hours After Birth	98.1 F	145	52
At the Time of Your Assessment	98.5 F	148	56

Vital Sign Trends:

Baby's heart rate was elevated at birth but proceeded to steadily decrease. His temperature was steady. His respirations were within normal limits.

Pain Assessment, 1 set (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0730	N-Pass	N/A	0	N/A	N/A

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 "M" after you list them.)	Frequency	Why was this intervention/ treatment provided to this patient? Please give a short rationale.
Sugar checks (N)	Before feedings and after	Baby's sugars are low, and the baby is not eating well.
Glucose gel (M)	When blood sugar is low	Baby's sugar was low, so it was given to try to raise blood sugar.

NG tube (M)	Once	Baby's blood sugars are low and not eating adequately.
Temperature before and after baths (N)	Before and after baths	To make sure the baby's temperature is maintained.

Discharge Planning (3 points)

Discharge location: Expected discharge 3/01/2024

Patient is going home with mother and father.

Follow up plan (include plan for newborn ONLY): No follow up plan charted at this time.

Education needs: Hypoglycemia and the signs and symptoms, adequate nutrition, and circumcision care.

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 (2 pts each)** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Risk for imbalanced nutrition: less than body requirements related to infant not	I chose this nursing diagnosis because the infant was not wanting to take any feedings	**1.**Record the amount the baby ingests from bottle feeding (Phelps, 2021). **Rationale:** This will help identify inadequate calorie intake (Phelps, 2021).	The family responded great to the nurse's actions. There was talk about taking the NG tube out after the first feeding, but the nurse talked and suggested

wanting to eat as evidence by infant getting an NG tube getting placed (Phelps, 2021).	by mouth anymore and his blood sugars were low. An NG tube was placed to help provide him nutrients, because he was not eating all the 15 mL requirements of his feedings.	**2.**Check the placement of the NG tube before each feeding (Phelps, 2021). **Rationale:** Since the infant has an NG tube in, we need to check the placement of the tube before each feeding to make sure the tube is not in the lungs (Phelps, 2021).	that we leave it in until the baby eats the full 15mL on his own and his blood sugars are good. The parents agreed with the course of action. The patient responded well to the NG tube. He had one whole feeding of 15 mL through the tube and then his next feeding he had 5 mL through the tube.
2. Imbalanced energy field related to hypoglycemia as evidence by low blood sugars cause inadequate energy production (Phelps, 2021).	I chose this nursing diagnosis because glucose provides us with a source of energy and having low blood sugars means there is not an adequate amount of energy being provided.	**1.** Treat patient with therapeutic healing (Phelps, 2021). **Rationale:** Treat patient with rest and medication, like the dextrose gel (Phelps, 2021). **2.**Help the family with getting familiar with the therapeutic techniques (Phelps, 2021). **Rationale:** This will help the family know how to treat and support the baby when they are discharged (Phelps, 2021).	The parents and the baby responded to the therapeutic treatment great, they were very intuitive with the learning. The parents understood that their baby needed as much rest as possible and not to bother him when possible. The baby slept great when he was not being bothered.
3. Risk for deficient knowledge related to hypoglycemia as evidence by the parents' asking questions about blood sugars (Phelps, 2021).	I chose this nursing diagnosis because the infant was having episodes of hypoglycemia and the parents were asking questions because they had little knowledge about low	**1.** Have open communication with the parents and be honest (Phelps, 2021). **Rationale:** This will build trust between the parents and healthcare staff, as well as the parents can openly express their feelings (Phelps, 2021). **2.** Find a private and quiet environment to educate the parents what hypoglycemia is and what the next steps	The parents were very nervous about their child having episodes of hypoglycemia. They were very cooperative and understanding with the nurse. The nurse would explain to them every step that was being taken and why she was doing everything she was doing. The patient responded well to the dextrose oral gel that was given.

	blood sugars.	are to treating it (Phelps, 2021). **Rationale:** Having a quiet environment will help get rid of distractions, so that the healthcare staff can educate the parents about hypoglycemia (Phelps, 2021).	
4. Risk for deficient knowledge related to circumcision care as evidence by the baby was scheduled for a circumcision on 3/30/2024 (Phelps, 2021).	I chose this nursing diagnosis because the baby was scheduled for a circumcision, and this is the parents first baby boy.	**1.** Establish trust between parents and healthcare staff, so that parents learn as much as possible (Phelps, 2021). **Rationale:** By establishing trust the parents will be more receptive to the education and the healthcare staff will be more efficient in teaching (Phelps, 2021). **2.** When educating the parents go slow and repeat as much as needed (Phelps, 2021). **Rationale:** Going slow and repeating yourself frequently will help not overwhelm the parents and it helps them understand the information being provided better (Phelps, 2021).	The parents were nervous about their son's circumcision, but the nurse calmed them down by talking to them. The nurse explained to the parents that their son's penis will be red and could be swollen but that is all normal.

Other References (APA):

Phelps, L. (2021). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer.