# N432 Newborn Care Plan

Lakeview College of Nursing

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## Demographics (10 points)

| | | | |
|---|---|---|---|
| **Date & Time of Clinical Assessment**<br>7/22/2022 @ 7:15pm | **Patient Initials**<br>S.D. | **Date & Time of Birth**<br>7/21/2022 @ 1158 am | **Age (in hours at the time of assessment)**<br>36 hours |
| **Gender**<br>Female | **Weight at Birth**<br>4,090 gm<br>9 lb. 0 oz | **Weight at Time of Assessment**<br>4, 090 gm<br>9 lb. 0 oz. | **Age (in hours) at the Time of Last Weight**<br>N/A |
| **Race/Ethnicity**<br>Caucasian | **Length at Birth**<br>54 Cm<br>21.6 Inches | **Head Circumference at Birth**<br>36 Cm<br>14.1 Inches | **Chest Circumference at Birth**<br>33 Cm<br>13 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:** G1 P0 T0 A0 L0

**When prenatal care started:** Prenatal care started at 12 weeks gestation.

**Abnormal prenatal labs/diagnostics:** Abnormal glucose tolerance test at 28 weeks gestation.

**Prenatal complications**: Gestational Diabetes

**Smoking/alcohol/drug use in pregnancy:** The patient denies the use of smoking, alcohol, or drugs during pregnancy.

**Labor History of Mother:**

**Gestation at onset of labor:** 36 weeks

**Length of labor:** 22 hours

**ROM:** Spontaneous, premature

**Medications in labor:** Oxytocin, Fentanyl, Ropivacaine, Zofran, Ampicillin

**Complications of labor and delivery:** Premature rupture of membranes

**Family History:**

**Pertinent to infant: Mother:** Obesity, Gestational diabetes

**Social History (tobacco/alcohol/drugs):**

**Pertinent to infant:** The mother does not use tobacco, alcohol, or drugs.

**Father/Co-Parent of Baby Involvement:** The father of the baby is not involved and will not be. The mother requests no information be given to the father regarding the infant.

**Living Situation:** MD lives with her parents in St. Joseph, Illinois. Her parents are very supportive. MD is a single female who works part time in a local retail clothing store.

**Education Level of Parents (If applicable to parents' learning barriers or care of infant):** MD attends the local community college.

## Birth History (10 points)

**Length of Second Stage of Labor:** 2 hours

**Type of Delivery:** Vaginal

**Complications of Birth:** N/A

**APGAR Scores:**

**1 minute:** 8

**5 minutes:** 9

**Resuscitation methods beyond the normal needed:** None needed.

## Feeding Techniques (10 points)

**Feeding Technique Type:** Breastfeeding

**If breastfeeding:**

**LATCH score:** Data not provided.

**Supplemental feeding system or nipple shield:** N/A

**If bottle feeding:**

**Positioning of bottle:** N/A

**Suck strength:** N/A

**Amount:** N/A

**Percentage of weight loss at time of assessment:** N/A (Second weight was not provided with case study)

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

Step 1: Subtract the current weight from the birth weight. This answer will be the weight lost.

Step 2: Divide the weight loss number by the original birth weight.

Step 3: Multiply by 100 to get a percentage.

**What is normal weight loss for an infant of this age?** The normal weight loss of an infant is expected 5% – 10% of their birth weight (Ricci et al., 2021).

**Is this neonate's weight loss within normal limits?** N/A

**Intake and Output (8 points)**

**Intake**

**If breastfeeding:**

**Feeding frequency:** Every 2-3 hours, and on demand

**Length of feeding session:** Feedings range from 7-19 minutes.

**One or both breasts:** The patient is using both breasts for feedings.

**If bottle feeding:**

**Formula type or Expressed breast milk (EBM):** N/A

**Frequency:** N/A

**Volume of formula/EBM per session:** N/A

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

**If NG or OG feeding:** N/A

**Frequency:** N/A

**Volume:** N/A

**If IV:**

**Rate of flow:** N/A

**Volume in 24 hours:** N/A

**Output**

**Age (in hours) of first void:** 3 hours old

**Voiding patterns:** 1305 1 wet diaper

**Number of times in 24 hours:** 1

**Age (in hours) of first stool:** 1 hr, 6 hours

**Stool patterns:**

**Type:** Meconium

**Color:** Black

**Consistency:** Tarry

**Number of times in 24 hours:** 2

**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 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** | Blood glucose levels are tested to determine whether the client requires oral glucose (Ricci et al., 2021). | 40-99 | @1215 56<br>@1500 40<br>@1600 42 | All the glucose levels were within normal range. |
| **Blood Type and Rh Factor** | Blood type and Rh factor testing was ordered to determine whether Rhogam would be required for the mother (Ricci et al., 2021). | O, A, B, AB Positive, Negative | A+ | The patient does not require Rhogam, as her Rh factor is positive. |
| **Coombs Test** | This test is completed to identify immune hemolysis or its transfusion reactions and will detect the antibodies and reactions on the red blood cells (Ricci et al., 2021). | Positive/Negative | + Coombs test | A positive Coombs test means the mother has developed antibodies that act against red bloods cells and are transferred to the infant. This puts the infant at risk for hyperbilirubinemia. |
| **Bilirubin Level (All babies at 24 hours)**<br><br>***Utilize bilitool.org for bilirubin levels*** | This test is done to test for hyperbilirubinemia, which presents as jaundice in newborns (Ricci et al., 2021). | 0.3-8.1 | @2300 6.1mg/dL | The patient's bilirubin level is within the normal range. |

| | | | | |
|---|---|---|---|---|
| **Newborn Screen (At 24 hours)** | This test detects metabolic and hematologic disorders that cannot be seen at birth or before the patient is 24 hours old (Ricci et al., 2021). | Positive/Negative | **(If available —these may be not available until after discharge for some clients)** | N/A |
| **Newborn Hearing Screen** | The newborn hearing screen tests for hearing loss in newborns (Ricci et al., 2021). | Passed Screen/ Failed Screen | N/A | N/A |
| **Newborn Cardiac Screen (At 24 hours)** | This test is done to detect if the patient has murmurs, heart deformities, and abnormal blood flow (Ricci et al., 2021) | Passed Screen/ Failed Screen | N/A | N/A |

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

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

**Newborn Medications (7 points)**

| **Brand/Generic** | **Aquamephyton (Vitamin K)** | **Illotycin (Erythromycin Ointment)** | **Hepatitis B Vaccine** | | |
|---|---|---|---|---|---|
| **Dose** | 1 mg | 5 mg/g | 0.5 mL | N/A | N/A |
| **Frequency** | Once at birth | Once, Both eyes at birth | Once at birth | N/A | N/A |
| **Route** | IM | Topical | IM | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| **Classification** | Vitamin K, Nutritive Agent | Macrolide antibiotics | Inactivated vaccine/viral | N/A | N/A |
| **Mechanism of Action** | Vitamin K is an essential cofactor for microsomal enzyme that catalyzes peptide-bound glutamic acids. It then converts active coagulation factors that are secreted by liver cells into blood (2020 Nurse's drug handbook, 2020). | Erythromycin inhibits protein synthesis by binding RNA molecule of ribosome to susceptible bacterial organisms (2020 Nurse's drug handbook, 2020). | Hepatitis B vaccine stimulates immune system to produce anti-HB without exposing the patient to active infection (2020 Nurse's drug handbook, 2020). | N/A | N/A |
| **Reason Client Taking** | Treatment of prophylaxis and vitamin K deficiency in newborns (2020 Nurse's drug handbook, 2020). | Prevent bacterial infections of the eye in newborns (2020 Nurse's drug handbook, 2020). | Prevention of contracting hepatitis B virus (2020 Nurse's drug handbook, 2020). | N/A | N/A |
| **Contraindications (2)** | Hypersensitivity to phytonadione, anticoagulant therapies (2020 Nurse's drug handbook, 2020). | Hypersensitivity to erythromycin, other bacterial antibiotics with similar components to erythromycin (2020 Nurse's drug handbook, 2020). | Allergic reaction, allergic reaction to yeast (2020 Nurse's drug handbook, 2020). | N/A | N/A |
| **Side Effects/Adverse Reactions (2)** | Decreased appetite, difficulty breathing | Swelling, fast heartbeat (2020 Nurse's drug handbook, | Redness, irritability (2020 Nurse's drug | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| | (2020 Nurse's drug handbook, 2020). | 2020). | handbook, 2020). | | |
| **Nursing Considerations (2)** | Observe infant for sings of vitamin K deficiency (bleeding from any site), Protect drug from light before administration due to decomposition and loss of potency due to light exposure (2020 Nurse's drug handbook, 2020). | Cleanse the infant's eyes as needed before application, administer from inner canthus to outer canthus (2020 Nurse's drug handbook, 2020). | Administer IM on anterolateral thigh for neonates, do not give vaccine intravenously or intradermally (2020 Nurse's drug handbook, 2020). | N/A | N/A |
| **Key Nursing Assessment(s)/Lab(s) Prior to Administration** | PT/INR, aPTT, hemoglobin, and hematocrit | Elevated WBC indicate infection | Liver function test (AST, ALT) | N/A | N/A |
| **Client Teaching needs (2)** | The parents of the patient will need to report rashes or side effects after administration of shot. The parents need to report signs of gasping syndrome (2020 Nurse's drug handbook, 2020). | The parents of the patient need to properly ensure full dosage of medication be given. The parents need to assess for adverse effects and allergic reactions after application (2020 Nurse's drug handbook, 2020). | The parents of the patient will need to bring the child to get second and third dosages per CDC guidelines. The parents will also need to assess for anaphylaxis reactions due to the vaccine's adverse effects (2020 | N/A | N/A |

| | | | | | |
|---|---|---|---|---|---|
| | | | Nurse's drug handbook, 2020). | | |

**Medications Reference (1) (APA):**

*2020 Nurse's drug handbook.* (2020). Jones & Bartlett Learning.

**Newborn Assessment (20 points)**

| Area | Your Assessment | Expected Variations and Findings<br><br>*This can be found in your book on page 622 in Ricci, Kyle, & Carman 4th ed 2020. | If assessment finding different from expectation, what is the clinical significance? |
|---|---|---|---|
| **Skin** | The skin was smooth and had quick skin turgor. The patient was well hydrated, and the skin temperature was warm. At the 2300 assessment, the infant had a slight yellow discoloration to her torso. | Smooth, flexible, good skin turgor, well hydrated, and warm (Ricci et al., 2021). | The infant's skin could be slightly yellow due to increasing bilirubin levels due to jaundice. |
| **Head** | The patient's head was average in size for newborn, gender, and ethnicity. The patient's head circumference at birth was 36 cm. | Varies with age, gender, and ethnicity (Ricci et al., 2021). | N/A-WNL |
| **Fontanels** | The patient's fontanels (anterior and posterior) were soft and flat on the skull. Anterior fontanel size was 2cm, and posterior fontanel was 1cm. | Soft, flat areas on the skull, remains open in infancy. Anterior fontanel size 1-4 cm (Ricci et al., 2021). The posterior fontanel is smaller and may close shortly after birth (Ricci et al., 2021). | N/A-WNL |

| | | | |
|---|---|---|---|
| **Face** | The patient's face had full soft checks and facial features like the eyes, nose, mouth symmetric. | Full cheeks, facial features symmetric (Ricci et al., 2021). | N/A-WNL |
| **Eyes** | The patient's eyes were clear, symmetrically placed on the face, and in line with both sides' ears. | Clear and symmetrically placed on face; in line with ears (Ricci et al., 2021). | N/A-WNL |
| **Nose** | The patient's nose is small and placed in the midline of the face. The nose was narrow, and patent and the patient indicated the ability to smell. | Small, placement in the midline and narrow, ability to smell (Ricci et al., 2021). | N/A-WNL |
| **Mouth** | The patient's mouth is midline to the face. The mouth was symmetric, intact, soft, and has a hard palate. | Mouth aligned in midline, symmetric, intact soft and hard palate (Ricci et al., 2021). | N/A-WNL |
| **Ears** | The patient's ears were soft, pliable, and quick to recoil when foiled and released. | Soft and pliable with quick recoil when foiled and released (Ricci et al., 2021). | N/A-WNL |

| | | | |
|---|---|---|---|
| **Neck** | The patient's neck was short, creased, and moves freely. The patient can hold the head in the midline position. | Short, creased, moves feely, baby holds head in midline (Ricci et al., 2021). | N/A-WNL |
| **Chest** | The patient's chest was round, symmetric, and smaller than the head. The patient's chest circumference at birth was 33 cm. | Round, symmetric, smaller than head (Ricci et al., 2021). | N/A-WNL |
| **Breath Sounds** | The patient's respiratory rate was within normal limits at 60 breaths/min. The lung sounds were clear bilaterally. | 30-60 breaths/min with short periods of apnea (less than 15 seconds) (Barlow et al., 2019). | N/A-WNL |

| | | | |
|---|---|---|---|
| **Heart Sounds** | The patient's heart sounds were within normal ranges at birth. The patient had a pulse of 138 bpm and S1 and S2 sounds were present. | 110-160/min with fluctuations above and below this range depending on activity level (crying, sleeping). S1 and S2 sounds present (Barlow et al., 2019). | N/A-WNL |
| **Abdomen** | The patient's abdomen was round dome-shaped and not distended. | Round, dome-shaped, and nondistended (Barlow et al., 2019). | N/A-WNL |
| **Bowel Sounds** | The patient's bowel sounds were present with growls and gurgles within a few minutes after birth. | Present within a few minutes/hours after birth (Barlow et al., 2019). Growls, gurgles, clicking sounds (Ricci et al., 2021). | N/A-WNL |
| **Umbilical Cord** | The patient's umbilical cord was odorless and exhibited no intestinal structure attachments. | Odorless and exhibit no intestinal structures (Barlow et al., 2019). | N/A-WNL |
| **Genitals** | The patient's genital region was slightly swollen in appearance with the major and minor equally prominent. | Swollen female genitals because of maternal estrogen (Ricci et al., 2021). | N/A-WNL |

| | | | |
|---|---|---|---|
| **Anus** | The patient's anus was present, patent and was not covered by a membrane. | Present, patent, not covered by a membrane (Barlow et al., 2019). | N/A-WNL |
| **Extremities** | The patient's arms and legs were symmetric, and she was able to freely move her extremities. | Extremities symmetric with free movement (Ricci et al., 2021). | N/A-WNL |
| **Spine** | The patient's spine was straight, flat, and centered. Her spine could be easily flexed with free movement. | Straight, flat, midline, and easily flexed (Barlow et al., 2019). | N/A-WNL |
| **Safety**<br>• **Matching ID bands with parents**<br>• **Hugs tag**<br>• **Sleep position** | The patient had matching ID bands with mother present at the time of assessment. Hugs tag was present, and the patient was laying swaddled on her back supine position while sleeping. | -Matching ID bands with parents: Present<br>-Hugs tag: Present<br>-Sleep position: Back lying | N/A-WNL |

**References:**

Barlow, M., Holman, H., Johnson, J., McMichael, M, Sommer, S., Wheless, L., Wilford, K., & Williams, D. (2019). ATI: RN *Maternal newborn nursing* (11.0 ed.). Assessment Technologies Institute, LLC.

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

**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?** N/A

**Are there any complications expected for a baby in this classification?** N/A

**Vital Signs, 3 sets (6 points)**

| **Time** | **Temperature** | **Pulse** | **Respirations** |
|---|---|---|---|
| **Birth** | 97.6 Axillary | 155 bpm | 56/min |
| **4 Hours After Birth** | 97.6 Axillary | 142 bpm | 44/min |
| **At the Time of Your Assessment** | 98.3 Axillary | 138 bpm | 54/min |

**Vital Sign Trends:** All vital sign assessments were within normal range. The vital signs upon birth were 97.6 axillary, 155 bpm, 56/min, and 98% O2 sat. Four hours after birth, the vital signs were all within normal range at 97.6 axillary, 142 bpm, 44/min, and 96% O2 saturation. At the time of assessment, vital signs showed 98.3 axillary, 138 bpm, 54/min, and 98% O2 saturation. There are no concerns currently for the infants' vital signs.

**Pain Assessment, 1 set (2 points)**

| **Time** | **Scale** | **Location** | **Severity** | **Characteristics** | **Interventions** |
|---|---|---|---|---|---|
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A | N/A |

(No pain assessment information was given in the case study)

## Summary of Assessment (4 points)

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

The infant was born on 7/21/2022 at 1158 am by premature spontaneous vaginal birth. The Apgar scores were 8/9. The EDD was 8/11/2022. The prenatal history shows the mother was a high-risk pregnancy due to gestational diabetes (medication controlled). The birth weight was 9lbs 0oz (4090 gms); length was 21.6in (54 cm); head circumference was 14.1in (36 cm); and chest circumference was 13 in (33cm). Upon assessment all systems were within normal limits. The neonate is breastfeeding and nursing well with most feedings every 2-3 hours and on demand. At the time of assessment, vital signs showed 98.3 axillary, 138 bpm, 54/min, and 98% O2 saturation. The bilirubin levels at 24 hours per scan were 6.1mg/dl. The infant is expected to discharge home with mother.

## 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. |
|---|---|---|
| Respiratory Assessment (N) | Every 30 Minutes | With every newborn contact, respiratory evaluation is necessary because this is the highest priority in newborn care. It is used to assess respiratory distress including chest movement, intercostals retraction, and nares dilation. |
| Monitor Vital Signs (N) | Every 30 Minutes | It is important to monitor the newborn's vital signs every half an hour for the first two hours after birth to ensure the newborn can adapt to life outside of |

| | | |
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| | | their mother's womb on her own. |
| Prevent Bacterial Infection: Erythromycin Ophthalmic Ointment (T) | Once at Birth | The topical ointment is used to prevent eye infections in newborn babies. |
| Treatment of Vitamin K-deficiency: AquaMEPHYTON (T) | Once at Birth | Administering this mediation reduces the risk for bleeding that can occur due to low levels of vitamin K in newborns. |

**Discharge Planning (2 points)**

**Discharge location:** The infant will discharge home with MD.

**Equipment needs (if applicable):** N/A

**Follow up plan (include plan for newborn ONLY):** After discharge from the hospital, the baby will need regular follow-up visits with her pediatrician. The first appointment should normally occur one to three days after discharge.

**Education needs:** The mother will need educated on breastfeeding, proper storage of breastmilk, and options for supplementation. The mother should also be educated on safe sleep routines, postpartum depression symptoms to be aware of, and abnormal postpartum findings.

**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) | Rational (1 pt each) | Intervention/Rational (2 per dx) (1 pt each) | Evaluation (2 pts each) |
|---|---|---|---|

| Identify problems that are specific to this patient. Include full nursing diagnosis with "related to" and "as evidenced by" components | Explain why the nursing diagnosis was chosen | 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. | • How did the patient/family respond to the nurse's actions?<br>• Client response, status of goals and outcomes, modifications to plan. |
|---|---|---|---|
| 1. Risk for hyperbilirubinemia related to positive Coombs test as evidence by yellow discoloration of the infant's torso (Newborn Nursing Diagnosis and Nursing Care Plans, 2022). | This nursing diagnosis was chosen due to the infant displaying yellow discoloration of the skin during 2300 assessment. | 1.Assess infant for skin abnormalities; note color or yellowing of skin or eyes.<br>**Rationale:** Yellowing of the skin can be determined by lightly pressing on the skin of a baby's forehead. This is the most common indicator of neonatal jaundice.<br><br>2.Observe breastfeeding and help improve latch and encourage frequent feedings every 2 hours; supplement with formula as needed.<br>**Rationale:** Jaundice may be present in infants if they are having difficulty breastfeeding. The nurse should make sure the infant is latching properly and staying hydrated. | The patient and her mother responded well to the interventions. The mother displayed determination to continue breastfeeding to improve bilirubin levels.<br><br>Goal met: The infant maintained a good latch, nursed well on both sides, and displayed no signs of fatigue or frustration while nursing. The infant stayed hydrated and blood glucose remained in normal range. |
| 2. Knowledge deficit related to lack of exposure to information as evidenced by request of information about jaundice from mother (Newborn Nursing Diagnosis and Nursing Care Plans, 2022). | This nursing diagnosis was chosen because the first-time mother lacks education and experience about jaundice. | 1. Explain what jaundice is and how it affects the vital organs such as the liver, on a level that the mother will understand.<br>**Rationale**: To provide education on jaundice and its pathophysiology in the simplest way possible.<br><br>2. Explain to the newborn | The infant's mother responded well to the education and felt more comfortable regarding the topic of jaundice.<br><br>Goal met: The mother was able to demonstrate sufficient knowledge of infant |

| | | | |
|---|---|---|---|
| | | mother what phototherapy is and how it can decrease bilirubin levels.<br>**Rationale**: Phototherapy is a treatment where an infant is placed under a special blue spectrum light to reduce bilirubin levels, while keeping the eyes protected. | jaundice and its management. |
| 3. Knowledge deficit about breastfeeding related to inexperience as evidenced by mother needing support (Newborn Nursing Diagnosis and Nursing Care Plans, 2022). | This nursing diagnosis was chosen because the infant's mother was displaying anxiety about her milk not coming in and showed signs of needing additional education. | 1. Evaluate the mother's motivation and desire to learn about breastfeeding.<br>**Rationale:** Patients must sense a need or a reason for learning everything about breastfeeding. Nursing instructions, breast care, and typical breastfeeding concerns are essential things that mothers need to learn.<br><br>2. Demonstrate, teach, and provide hands-on assistance with breastfeeding positions such as cradle hold, football hold, and sideline position.<br>**Rationale:** The most critical aspect of effective breastfeeding is proper positioning and attachment. When the infant is positioned correctly and attached, it is easier for them to breastfeed and promotes better milk production. | The patient's mother responded well to the nurse's actions because she demonstrated good feeding techniques.<br><br>Goal met: The patient's mother demonstrated a better understanding of breastfeeding, positioning, and effectiveness of latching. The patient's mother recorded the patient's intake during a successful feeding. |
| 4. Risk for imbalanced body temperature related to inability to manage thermoregulation | This nursing diagnosis was chosen due to newborns not being able to regulate their | 1. Allow a transition period of 6 to 8 hours before bathing the patient and postpone weighing until uninterrupted skin to skin contact is done. | The infant responded well to the nurse's actions and displayed no signs of hypothermia. Skin-to-skin time and |

| | | | |
|---|---|---|---|
| secondary to prematurity as evidenced by acrocyanosis (Newborn Nursing Diagnosis and Nursing Care Plans, 2022). | body temperature and being at risk for hyperthermia. | **Rationale:** Weighing can be done after the first feeding and period of uninterrupted skin to skin contact. Bathing an infant immediately after birth lowers the body temperature, potentially causing hypothermia and hypoglycemia.<br><br>**2.** Monitor the patient's body temperature. Keep track of the patient's heart rate, and cardiac rhythm. **Rationale:** A digital thermometer can be used to monitor the core axillary temperature in hypothermic patients. As hypothermia advances the heart rate and blood pressure decrease. | postponing the first bath allowed for the infant to stay warm and maintain adequate body temperature.<br><br>Goal met: The infant's body temperature was easily maintained and remained above 97.6 degrees for all assessments. |

**Other References (APA):**

*Newborn Nursing Diagnosis and Nursing Care Plans*. (2022, January 24). NurseStudy.net. https://nursestudy.net/newborn-nursing-diagnosis-care-plans/

# 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]

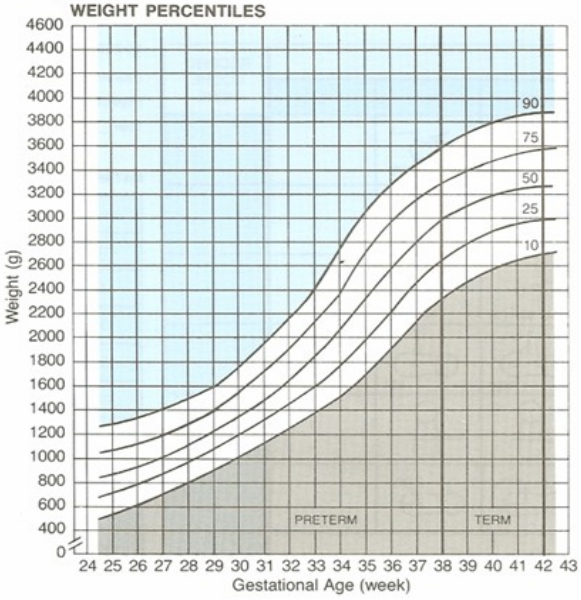
NAME _____ DATE OF EXAM _____ LENGTH _____

HOSPITAL NO. _____ SEX _____ HEAD CIRC. _____

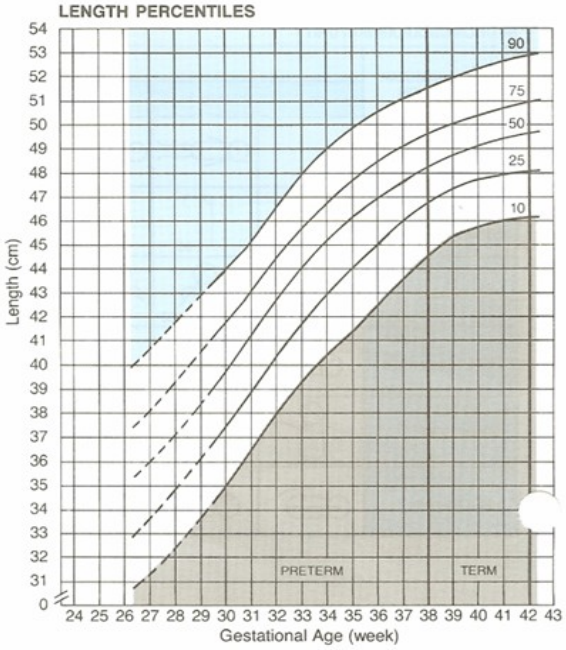
RACE _____ BIRTH WEIGHT _____ GESTATIONAL AGE _____

DATE OF BIRTH _____

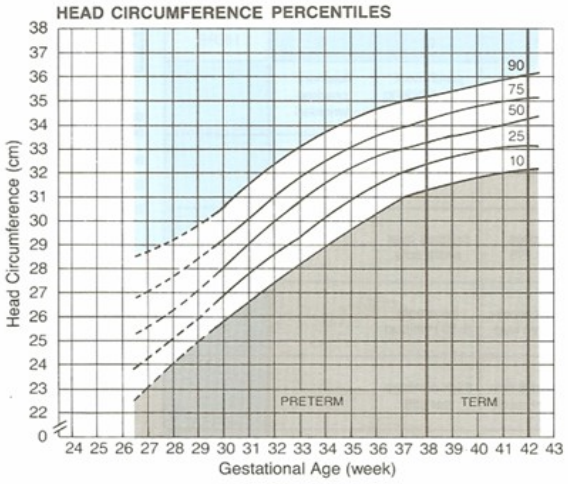
WEIGHT PERCENTILES




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