N432 Newborn Care Plan

Lakeview College of Nursing

Name: Christine Nlandu

Demographics (10 points)

Date & Time of Clinical Assessment 10/04/2021 1620	**Patient Initials BB**	**Date & Time of Birth 10/04/2021 0815**	**Age (in hours at the time of assessment) 8 hours 5 minutes**
Gender Female	**Weight at Birth (gm) __3570_____ (lb.) ___7__ (oz.) __13.9___**	**Weight at Time of Assessment (gm) ___3570_____ (lb.) __7___ (oz.) __13.9___**	**Age (in hours) at the Time of Last Weight The nurses weighed the baby at birth and will be done again when she is 24 hours old.**
Race/Ethnicity White	**Length at Birth Cm 50.8_____ Inches _20_____**	**Head Circumference at Birth Cm _34_____ Inches _13.39_____**	**Chest Circumference at Birth Cm __30_____ Inches _11.78_____**

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: G4T3P0A1L3

The mother had her second baby by cesarean.

When prenatal care started: 02/26/21

Abnormal prenatal labs/diagnostics:

RBC: 3.45, Hgb: 10.7, Hct: 31.1, Neutrophil: 77.1, Lymphocytes: 15.8, Urine WBC: trace, Urine ketones: trace. Echography showed the baby was in a breech position.

Prenatal complications: The mother had a car accident in July 2020. She broke her 8 ribs and lost her spleen. The mother was convalescent when she became pregnant. The

pregnancy puts pressure on the back, which results in back pain. The baby was in a breech position.

Smoking/alcohol/drug use in pregnancy: The mother smoked one-half pack of cigarettes a day and quit 10 years ago. She used methadone for 7 years.

Labor History of Mother:

Gestation at onset of labor: 39 weeks 1 day

Length of labor: One hour.

ROM: The membrane was ruptured at 0814 during a cesarean.

Medications in labor:

Fentanyl/Sublimaze), Metoclopramide/Reglan, Sodium Citrate/Citric acid, Lactated ringer infusion, Methylergonovine/Methergine, Morphine/Sulfate, Phenylephrine/Neo synephrine, Epinephrine, Bupivacaine, Metoclopramide/Reglain, Oxytocin/Pitocin, Azithromycin/Zithromax, Cefazolin/Ancef.

Complications of labor and delivery: During delivery the mother was given Azithromycin as prophylactic treatment, but it caused some allergic reactions, such as nausea, vomiting, warmth, and redness at the IV site.

Family History:

Grandfather is alive and has a history of hypertension. The grandmother deceased from hypertension.

Pertinent to infant: N/A

Social History (tobacco/alcohol/drugs): The mother smoked one-half pack of cigarettes a day and quit 10 years ago. She used methadone for 7 years.

Pertinent to infant: The infant is in observation because the mother tested positive for methadone. Methadone is an opioid, causing NOWS in the infant during pregnancy, which may be life-threatening. During breastfeeding, methadone may cause withdrawal symptoms in the infant if the mother stops methadone or breastfeed abruptly. Methadone can also cause seizure activity in the infant (Jones & Bartlett, 2020).

Living Situation: The mother lives with her boyfriend, the father of the baby, two children, one dog, three cats, and chickens in Westville.

Father/Co-Parent of Baby Involvement: The father is involved.

Education Level of Parents (If applicable to parents' learning barriers or care of infant): The mother has some college education and works as a cashier at Casey gas station.

Birth History (10 points)

Length of Second Stage of Labor: The client was scheduled for a cesarean because the baby was in a breech position.

Type of Delivery: Cesarean

Complications of Birth: Allergic reactions to Azithromycin.

APGAR Scores:

- **1 minute: 8**
- **5 minutes: 9**

Resuscitation methods beyond the normal needed: Suctioning of the mouth, nose for a slight amount of thin mucus, radiation warmer, and stimulation.

Feeding Techniques (10 points)

Feeding Technique Type: Breastfeeding only for the first 8 weeks, then the formula will be added when the mother returns to work.

If breastfeeding:

LATCH score: The newborn latch well almost every two to three hour, but she falls asleep during feedings.

Supplemental feeding system or nipple shield: N/A

If bottle feeding: N/A

Positioning of bottle: N/A

Suck strength: N/A

Amount: N/A

Percentage of weight loss at time of assessment: Birth weight- current weight divided by birth weight time 100%

****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? Newborns may lose up to 10% of their birthweight after three to four days (Ricci et al., 2020, p. 607). BB is less than 24 hours and has not been weighed for the second time.

Is this neonate's weight loss within normal limits? The client was weighed only at birth.

Ricci, S.S., Kyle, T., & Carman, S. (2017). ***Maternity and pediatric nursing*** **(3rd ed.).**

Wolters Kluwer.

Intake and Output (8 points)

<u>Intake</u>

If breastfeeding:

Feeding frequency: Feeding is very 2 to 3 hours.

Length of feeding session: 30 minutes on each breast.

One or both breasts: both breasts.

If bottle feeding: N/A

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: N/A

Rate of flow: N/A

Volume in 24 hours: N/A

<u>Output</u>

Age (in hours) of first void: 4 hours old.

Voiding patterns: Normal

Number of times in 24 hours: The nurse changed one diaper during the first 10 hours.

Age (in hours) of first stool: N/A

Stool patterns: N/A

Type: N/A

Color: N/A

Consistency: N/A

Number of times in 24 hours: N/A

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	A blood glucose test is performed for an infant born in mothers who have gestational diabetes or are diabetic to test for neonatal diabetes (Ricci et al., 2020).	45-90 mg/dL	The blood glucose test was not required for this client because the mother does not have diabetes.	N/A

Blood Type and Rh Factor	**This test is to assess for potential RH incompatibility between the newborn and the mother. Also, screens for hemolytic disease of the newborn (Ricci et al., 2020).**	**A, B, O, AB negative or positive RH factor.**	**O RH+**	**This test matched the mother and the newborn. No incompatibility was noted.**
Coombs Test	**Coombs test is performed to assess for foreign antibodies in the infant's blood attacking the newborn's erythrocytes, used to check for hemolytic disease of the newborn (Ricci et al., 2020).**	**Negative or positive**	**Negative**	**N/A**
Bilirubin Level (All babies at 24 hours) ***Utilize bilitool.org for bilirubin levels***	**Bilirubin level is used to assess for liver function and to check if the newborn's red blood cells are going through hemolysis (Ricci**	**Less than 5 mg/dL**	**This test was not drawn because the client is less than 24 hours of age.**	**N/A**

	et al., 2020).			
Newborn Screen (At 24 hours)	**This test is performed before discharge to detect for birth defects in a healthy-looking newborn but could be at risk of developing health complications (Ricci et al., 2020).**	**Negative genetic or inborn defects**	**(If available—these may be not available until after discharge for some clients) This test was not drawn because the client is less than 24 hours of age.**	**N/A**
Newborn Hearing Screen	**Hearing loss is a common birth disorder. This screening is to detect infants who are likely to have a hearing loss and need further evaluation (Ricci et al., 2020).**	**The newborn has intact hearing.**	**This test was not drawn because the client is less than 24 hours of age.**	**N/A**
Newborn Cardiac Screen (At 24 hours)	**This test is performed to detect defects Of cardiac System in newborn (Ricci et al., 2020).**	**No congenital cardiac defects**	**This test was not drawn because the client is less than 24 hours**	**N/A**

			of age.	

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

Ricci, S.S., Kyle, T., & Carman, S. (2017). ***Maternity and pediatric nursing*** **(3rd ed.). Wolters Kluwer.**

Newborn Medications (7 points)

Brand/Generic	**Aquamephyton (Vitamin K) (Jones & Bartlett., 2020).**	**Illotycin (Erythromycin Ointment) (Jones & Bartlett., 2020).**	**Hepatitis B Vaccine (Jones & Bartlett., 2020).**		
Dose	**1 mg**	**1 cm strip ointment**	**0.5 ml**		
Frequency	**Once**	**Once**	**This vaccine is given at birth, 1-2 months, and 6 months.**		
Route	**IM**	**Topic ointment in the eyes.**	**IM**		
Classification	**Vitamin**	**Antibiotic**	**Viral inactivated vaccine**		
Mechanism of Action	**Vitamin K is a blood clotting factor. The carbanion mimics the proton abstraction from the gamma position of glutamate protein bounding (Ricci et al., 2017).**	**This medicine binds with the 50S ribosomal subunit of the 70S ribosome in many types of aerobic, anaerobic, gram-negative, and gram-positive. This action inhibits**	**Hepatitis B vaccine is a recombinant vaccine that produces its own protection to against the disease. It produces anti-hepatitis B antibodies in newborns.**		

		RNA-dependent protein synthesis in the bacterial cell, causing them to die (Ricci et al., 2017).			
Reason Client Taking	**The patient was given vitamin K to increase the coagulability of blood. This is a prophylactic treatment, preventing vitamin K deficiency in newborn (Ricci et al., 2017).**	**This medicine is given to newborns to prevent pink eye or ophthalmia neonatorum, which may cause blindness. Also prevents Neisseria gonorrhea and chlamydia (Ricci et al., 2017).**	**This vaccine is used to prevent the infection caused by the hepatitis B virus.**		
Contraindications (2)	**Hypercoagulability & Hypersensitivity to vitamin K.**	**Hypersensitivity to erythromycin & other macrocytic antibiotics or their components.**	**Severe allergic reaction following vaccination & babies who had an allergic reaction to yeast.**		
Side Effects/Adverse Reactions (2)	**Tachycardia & hypercoagulability**	**Inflammation at the injection site & hepatotoxicity**	**Pain at the injection site & low fever.**		
Nursing Considerations (2)	**Administer within 1 to 2 hours IM in the outer third of the vastus lateralis at a 90-degree angle. Adhere to standard precaution (Ricci et al., 2017).**	**Be alert for chemical conjunctivitis for 1-2 days & wear gloves, and open eyes by placing thumb and finger above and below the eye (Ricci et al., 2017).**	**Administer IM in the anterolateral thigh & use a 22-25 gauge for injection**		

Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Monitor patient's platelet count & PT.**	**Assess the heart rate & liver function before administration.**	**Monitor for HBsAg and antibodies in clients born to mothers with positive HBsAg**		
Client Teaching needs (2)	**Explain to parents that the vitamin K's purpose is to produce clotting factors. Parent should report any signs of respiratory distress.**	**Teach the parents that this medication is given as a universal prophylaxis to prevent potential blindness.**	**Teach parents that this vaccine is given in sequence and needs to follow the calendar sequence of administration. Inform parents that this vaccine prevents infection caused by the hepatitis B virus.**		

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). ***2020 nurse's drug handbook*** **(19th ed.). Burlington, MA.**

Ricci, S.S., Kyle, T., & Carman, S. (2017). ***Maternity and pediatric nursing*** **(3rd ed.). Wolters Kluwer.**

Newborn Assessment (20 points)

Area	Your Assessment	Expected Variations and Findings *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 body was pink, well-hydrated, feet and hands showed acrocyanosis, which is normal shortly after birth. The skin was warm to touch.**	**Smooth, flexible, good skin turgor, well-hydrated, warm, skin color consistent with client race/ethnicity.**	**Normal findings.**
Head	**The head is symmetrical, round, and correlated with body size. The skull is smooth and fused except for both fontanels.**	**The head varies with age, gender, ethnicity. Symmetrical and normocephalic.**	**Normal findings.**
Fontanels	**The anterior fontanel has a diamond shape, and the posterior fontanel is triangular. Both fontanels were soft, flat, and open.**	**Diamond-shaped anterior fontanel, triangular-shaped posterior fontanel.**	**Normal finds.**
Face	**The face is symmetrical, has full cheeks when she is crying.**	**Full cheeks with symmetrical facial features.**	**Normal findings.**
Eyes	**Eyelids, conjunctiva, sclera iris are within normal limits and normal color. Symmetrical eyes, pupils' equal round**	**Clear and symmetrically lined up with ears. Eyelids, conjunctiva, sclera iris are within normal limit and**	**Normal findings.**

	reactive to light bilaterally. Clear and symmetrically lined up with ears.	**normal color. Symmetrical eyes, pupils' equal round reactive to light bilaterally.**	

Nose	**Normal size, symmetrical, normal position, and no lesion noted. The nose is midline, patents nares, and intact septum. Nostrils are equal size and patent.**	**Small, midline, and patent, ability to smell.**	**Normal findings.**
Mouth	**Lips are symmetrical, midline, pink, color, and moist. Mouth aligns with mandible, intact soft and hard palate, sucking pads inside the cheeks, midline uvula, mobile tongue, and normal gag reflex.**	**Midline, symmetric, intact soft and hard palate. Lips are symmetrical, midline, pink, color, and moist. Sucking pads inside the cheeks, midline uvula, mobile tongue, and normal gag reflex.**	**Normal findings.**
Ears	**Ears are soft, align with eyes, pliable, and easy to fold and release.**	**Soft and pliable with quick recoil when folded and released.**	**Normal findings**
Neck	**The client has a short neck, moves freely, and holding the head.**	**Short, moves freely, baby holds head midline.**	**Normal findings.**
Chest	**The chest is round, size less than the head, and symmetrical. The newborn has two nipples with a barrel chest, normal for infants.**	**Round, symmetric, smaller than head.**	**Normal findings.**
Breath Sounds	**The client has equal and normal breath sounds bilateral.**	**Bronchovesicular breath sounds in bilateral lungs.**	**Normal findings.**

Heart Sounds	**Audible S1 and S2 with normal rate and rhythm.**	**S1, S2 heart sounds. Absent S4, S4 or murmurs. Regular rate/rhythm.**	**Normal findings**
Abdomen	**Normal bowel sounds in all four quadrants, no mass or tenderness noted. The abdomen.**	**Protuberant, contour, soft. Abdominal movements with respiration.**	**Normal findings.**
Bowel Sounds	**Bowel sounds are present in all 4 quadrants.**	**Bowel sounds are present in all 4 quadrants.**	**Normal findings.**
Umbilical Cord	**Three vessels in the umbilical cord, one large vein, and 2 small arteries.**	**Three vessels in the umbilical cord, one large vein, and 2 small arteries.**	**Normal findings.**
Genitals	**Genitalia is pink. The labia cover the clitoris.**	**Genitalia is pink. The labia cover the clitoris.**	**Normal findings.**
Anus	**The anus is open. The client has not passed meconium yet and she is less than 24 hours, which is not a concern.**	**Normal position, patency evidenced by passing meconium.**	**Normal findings.**
Extremities	**Twenty digits are intact. Hands, arms, legs, and feet are all symmetrical and equal length with a full range of motion.**	**Symmetrical with free movement. All 20 digits are intact. Full range of motion.**	**Normal findings.**
Spine	**Symmetrical, midline, no signs of abnormal spinal curvature.**	**Symmetrical, midline, no signs of abnormal spinal curvature.**	**Normal findings**
Safety • **Matching ID bands with parents**	**Matching parental bands, hugs tag present on left foot, client is swaddled**	**Matching parental band hugs tag on client's foot. Sleeping on back**	**No abnormal findings.**

• Hugs tag • Sleep position	and sleeping supine.	swaddled.	

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? Client scored a 40. Appropriate for client's gestational age. (AGA)

Are there any complications expected for a baby in this classification? No expected complications.

Vital Signs, 3 sets (6 points)

Time	Temperature	Pulse	Respirations
Birth	98.7 F axillary	140	44
4 Hours After Birth	98.1 F axially	140	52
At the Time of Your Assessment	98.9 F axially	142	46

Vital Sign Trends: All the infant's vitals are stable. No abnormal values were noted.

Pain Assessment, 1 set (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1620	Neonatal infant pain scale.	N/A	N/A	N/A	N/A

Summary of Assessment (4 points)

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

BB, a female baby, was delivered on 10/04/21 at 0815 by cesarean, with low transverse delivery. Nuchal cord x1, APGAR scores of 8/9. EDD 10/10/21 by U.S Dubowitz reveals neonate is 39 5/7 weeks and AGA. Prenatal history was uncomplicated. Labor and delivery were complicated by a breech position. Birth weight was 7lb 13.9 oz (3570 gm), 50.8 cm (20 in) long. Upon assessment, all systems are within normal limits. Last set of vital signs: 98.9 F/142/46. Neonate is breastfeeding and nursing well, with most feedings every 2-3 hours. Bilirubin level was not performed yet. Neonate is expected to be discharged with the mother within 72 hours. The newborn should see the pediatrician in the office for the first well-baby check within 48 hours.

Do we need to rewrite this so that t is complete sentences? Yes

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.
Weight the newborn daily (N)	**Once a day**	**After birth, newborns lose weight and regain their birth weight in few days. If the baby fails to meet the norms, it can indicate a health problem.**
Breastfeeding teaching (N)	**Continuous**	**Teaching the mother helps ensure the baby is getting enough breast milk to help her grow.**
Hepatitis B vaccination (T)	**Once**	**The hepatitis B vaccine was given to provide immunization against the hepatitis virus.**

Treatment of the eyes with erythromycin ointment (T)	**Once**	**Erythromycin is a prophylactic treatment to prevent neonatal ophthalmia neonatorum, Neisseria gonorrhea, and chlamydia.**

Discharge Planning (2 points)

Discharge location: The infant will go home with her mother.

Equipment needs (if applicable): The infant will need a car seat for safety precaution.

Follow up plan (include plan for newborn ONLY): The infant will be seen by her provider two days after discharge and accompanied by the caregiver.

Education needs: Mother needs to be educated on breastfeeding and follow-up appointments for the newborn.

Breastfeeding education occurs during prenatal and intrapartum periods. This education aims to increase mothers' knowledge and skills, helping them view breastfeeding as normal and develop positive attitudes. This mother needs more education on the position and stimulation of the baby during breastfeeding.

Hold the baby in a feeding position.

Breastfeed the baby up to eight times a day

Let the newborn feed for as long as she wants.

Rub the baby's back or shoulder if she falls asleep during feeding.

Educate the mother on the benefit of breast milk.

Emphasize the need for follow-up appointments and the importance of vaccines in the newborn.

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. Knowledge deficit related to substance use during pregnancy as evidenced by the mother tested positive for methadone use.	This diagnosis was chosen because methadone use during pregnancy can be life-threatening to the fetus or newborn.	1. Teach the mother about adverse effects of methadone on fetus. Rationale: Methadone has severe adverse effect on fetus, which causes low birth weight, preterm, and death (Jones & Bartlett, 2020). 2. Instruct the mother to observe the baby for signs of methadone toxicity and seek immediate care. Rationale: Methadone can cause NOWS, which is life-threatening in newborns. After birth, the newborn may develop respiratory depression, sleepiness, or limpness (Jones & Bartlett, 2020).	The mother will verbalize the understanding of teaching about the side effects of methadone during pregnancy and birth.
2. Risk for Ineffective Thermoregulation related to immature compensation for changes in	This diagnosis was chosen because the baby has acrocyanosis, which should	1. Before birth, prepare a neutral thermal environment with a radiant warmer to use during the initial assessment	The infant will maintain an axillary temperature within the normal range.

environmental temperature as evidenced by acrocyanosis.	**go away after weeks. If acrocyanosis does not disappear, it may warrant father assessment.**	**Rationale: The radiant warmer should be preheated to prevent any heat loss of the newborn (Ricci et al., 2020).** **2. During the assessment, warm objects come into contact with the infant, such as stethoscopes, scale, clothing, and hands.** **Rationale: This action will prevent heat conduction from the newborn's body (Ricci et al., 2020).**	
3. Knowledge deficit related to breastfeeding as evidenced by lack of infant stimulation to continue sucking.	**This diagnosis was chosen because the client's mother failed to stimulate the baby while breastfeeding.**	**1. Assess the mother and the newborn during the initial feeding session to determine the need for assistance and education.** **Rationale: Mother and infant must be comfortable to ensure breastfeeding success (Ricci et al., 2020).** **2. Provide refresher teaching to the mother on proper breastfeeding.** **Rationale: Infants require enough nutrition to grow and have very small stomach capacity, which means they need feedings every 2-3 hours (Ricci et al., 2020).**	**The mother verbalizes the importance of regular feedings every2-3 hours. The mother stimulated the baby during breastfeeding.**
4. Risk for impaired skin integrity related to hugs tag as evidenced by erythema.	**This diagnosis is important because newborns have a Wi-Fi hugs tag attached to**	**1. Inspect for redness around the limb and other parts of the body.** **Rationale: Early detection of skin irritation can prevent further breakdown and infections**	**The baby will be free from skin breakdown. The hugs are checked frequently.**

	their ankles during a hospital stay, leading to skin breakdown.	**(Ricci et al., 2020).** **2. Frequently check the hugs and the overall skin every 2-4 hours.** **Rationale: the newborns frequently move and can easily rib the hug over the skin (Ricci et al., 2020).**	

Other References (APA):

Jones & Bartlett Learning. (2020). ***2020 nurse's drug handbook*** **(19th ed.). Burlington, MA.**

Ricci, S.S., Kyle, T., & Carman, S. (2017). ***Maternity and pediatric nursing*** **(3rd ed.). Wolters Kluwer.**

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]

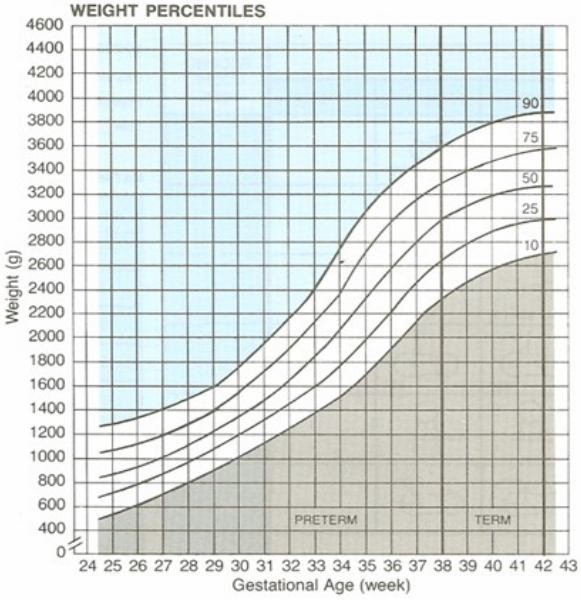
NAME _____ DATE OF EXAM _____ LENGTH _____

HOSPITAL NO. _____ SEX _____ HEAD CIRC. _____

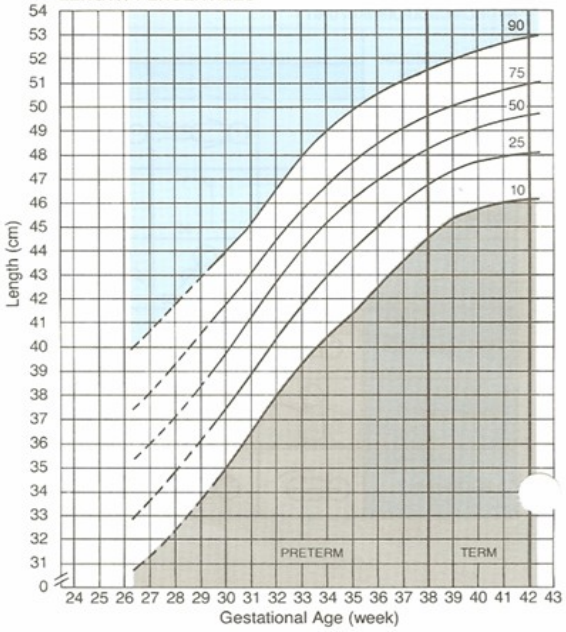
RACE _____ BIRTH WEIGHT _____ GESTATIONAL AGE _____

DATE OF BIRTH _____

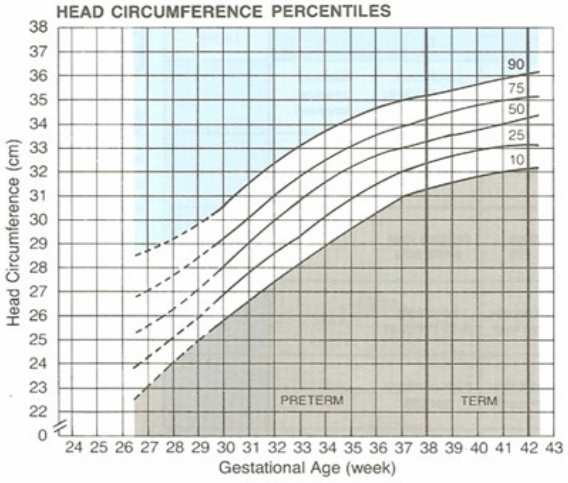
WEIGHT PERCENTILES



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