N432 Newborn Care Plan

Lakeview College of Nursing

Katie Finn

Demographics (10 points)

Date & Time of Clinical Assessment 6/17/22 0800	**Patient Initials KH**	**Date & Time of Birth 6/14/22 2032**	**Age (in hours at the time of assessment) 72 hours old**
Gender **Female**	**Weight at Birth** **(gm) 3670** **(lb.) 8 (oz.) 1.5**	**Weight at Time of Assessment (gm) 3530** **(lb.) 7 (oz.) 12.9**	**Age (in hours) at the Time of Last Weight** **52 hours old**
Race/Ethnicity **Caucasian and African American**	**Length at Birth** **Cm 52.1** **Inches 20.5**	**Head Circumference at Birth** **Cm 32** **Inches 12.6**	**Chest Circumference at Birth** **Cm 32** **Inches 12.6**

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: 31011

When prenatal care started: October 2021

Abnormal prenatal labs/diagnostics: Urine tested positive for cannabinoid

Prenatal complications: N/A

Smoking/alcohol/drug use in pregnancy: Occasional cannabis use

Labor History of Mother:

Gestation at onset of labor: 39 weeks 3 days

Length of labor: 14.5 hours

ROM: 0952

Medications in labor: Buspirone, acetaminophen, butorphanol, ephedrine, ondansetron, prostaglandin E2, and fentanyl-ropivacaine epidural.

Complications of labor and delivery: None

Family History: Mother: anxiety and depression; father: bipolar disorder and depression

Pertinent to infant: Possible impact on the mother's care towards the child.

Social History (tobacco/alcohol/drugs): Uses cannabis occasionally

Pertinent to infant: Possible altered responses to visual stimuli, high-pitched cries indicating insults against the central nervous system, and increased tremulousness.

Father/Co-Parent of Baby Involvement: Present and actively involved

Living Situation: Lives at home with the father and a daughter

Education Level of Parents (If applicable to parents' learning barriers or care of infant): Parents can verbally affirm that they understand why they must stay an extra night. Parents understand the importance of staying an extra night at the hospital.

Birth History (10 points)

Length of Second Stage of Labor: 1 hour

Type of Delivery: Induced vaginal delivery

Complications of Birth: N/A

APGAR Scores:

1 minute: 8

5 minutes: 9

Resuscitation methods beyond the normal needed: N/A

Feeding Techniques (10 points)

Feeding Technique Type: Breastfeeding exclusively

If breastfeeding:

LATCH score: 10

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: 3.54%

****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? Yes

Is this neonate's weight loss within normal limits? Yes

Intake and Output (8 points)

Intake

If breastfeeding:

Feeding frequency: Q2-3H

Length of feeding session: About 20 min

One or both breasts: Both

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:

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: 11.5 hours old

Voiding patterns:

Number of times in 24 hours: 5 times

Age (in hours) of first stool: 11 hours old

Stool patterns:

Type: Meconium

Color: Black

Consistency: Soft

Number of times in 24 hours: 5 times

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	To monitor for hypoglycemia, which is common in newborns (Ricci et al., 2022).	30-60 mg/dL	N/A	N/A
Blood Type and Rh Factor	In case a blood transfusion is necessary (Ricci et al., 2022).	A, B, AB, O with Rh + or -	A+	The infant's blood type is A and Rh+
Coombs Test	If the test is positive, the mother must be given RhoGAM to prevent the body rejecting the next fetal cells if the mother becomes pregnant again (Ricci et al., 2022).	+ or -	Negative	The mother does not need a RhoGAM injection.
Bilirubin Level (All babies at 24 hours) ***Utilize bilitool.org for bilirubin levels***	Bilirubin is taken from all newborns to diagnosis jaundice. This is a common condition in newborns (Ricci et al., 2022).	0.3 – 8.1 mg/dL	12.1 mg/dL	The infant has jaundice and will need intervention.
Newborn Screen (At 24 hours)	This screening is to diagnosis any genetic conditions early in the infant's life to allow for early interventions (Ricci et al., 2022).	Within normal limits	N/A	N/A
Newborn Hearing Screen	This screening is required in most states to analyze the infant's sensorineural and conduction hearing. Early detection has better outcomes than later (Ricci et al., 2022).	Passed bilaterally	Passed bilaterally	The infant has no difficulties with conductive or sensorineural hearing
Newborn Cardiac Screen (At 24 hours)	This test analyzes the oxygen saturation of the infant's blood to analyze the infant's oxygenation ability (Ricci et al., 2022).	95% – 100%	99%—100%	The infant has well-oxygenated blood

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

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). *Mosby's diagnostic and laboratory test reference* (14th ed.). Elsevier.

Ricci, S. S., Kyle, T., & Carman, S. (2022). *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	No dose prescribed	0.5 mg
Frequency	Once	Once	Once
Route	IM	Optic	IM
Classification	Vitamin (Jones & Bartlett, 2020)	Macrolide antibiotic (Jones & Bartlett, 2020)	Inactivated viral vaccine
Mechanism of Action	Increases the production of prothrombin in the liver to promote blood clotting (Jones & Bartlett, 2020).	It inhibits the replication of RNA in bacterial cells to kill them (Jones & Bartlett, 2020).	The vaccine contains proteins found on the surface of the hepatitis B virus. The body will create antibodies towards the antigens and will have the "memory" if they are ever infected with the virus (Jones & Bartlett, 2020).
Reason Client Taking	To prevent hemorrhage in the infant because newborns are not able to make clotting factors for the first week of life.	This medication prevents ophthalmia neonatorum in neonates that causes blindness ophthalmia neonatorum (Jones & Bartlett, 2020).	To help protect the infant from contracting the hepatitis B disease (Jones & Bartlett, 2020).
Contra indications (2)	1. Hypersensitivity to vitamin K 2. Hypersensitivity to the medication's inactive ingredients (Jones & Bartlett, 2020)	1. Hypersensitivity to macrolide antibiotics 2. Hypersensitivity to simvastatin	1. Hypersensitivity to hepatitis B vaccine 2. Hypersensitivity to yeast (Jones & Bartlett, 2020)
Side Effects/ Adverse Reactions (2)	1. Anaphylaxis 2. Cardiac arrest (Jones & Bartlett, 2020)	1. Fever 2. Hepatotoxicity (Jones & Bartlett, 2020)	1. Irritability 2. Sore throat (Jones & Bartlett, 2020)
Nursing Considerations (2)	1. Administer 1-2 hours after birth 2. Administer IM injection in the vastus lateralis (Jones & Bartlett,	1. Do not dilute with benzyl alcohol if the parenteral medication is for a neonate 2. Monitor liver	1. Administer within 12 hours of birth 2. Administer IM injection in the vastus lateralis (Jones & Bartlett, 2020)

	2020)	enzymes periodically after administration (Jones & Bartlett, 2020)	
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	1. Observe for bleeding 2. Monitor for jaundice (Jones & Bartlett, 2020)	3. Monitor infants for vomiting or irritability with feeding 1. Watch for signs and symptoms of a superinfection (Jones & Bartlett, 2020)	1. Monitor the infant for any anaptyctic reaction to the vaccine 2. Assess the infant for any pain or swelling at the injection site (Jones & Bartlett, 2020)
Client Teaching needs (2)	1. Contact provider if the infant's lips turn blue 2. Contact provider if the infant has pain or swelling at the injection site (Jones & Bartlett, 2020)	1. Instruct the parents to notify the provider immediately if an allergic reaction occurs 2. Have the parents notify the provider if the infant is having diarrhea (Jones & Bartlett, 2020)	1. Educate the parents on when the infant will need the next two doses 2. Educate the parents on the reason for the vaccine (Jones & Bartlett, 2020)

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). *2021 Nurse's drug handbook* (20th ed.). Jones & Bartlett Learning.

Newborn Assessment (20 points)

Area	Your Assessment	Expected Variations and Findings	If assessment finding different from expectation, what is the clinical significance?
Skin	Yellowish-orange, warm, dry, and intact. The skin is elastic and normal for ethnicity.	Smooth, flexible, good skin turgor, well hydrated, and warm.	The infant's skin is yellow due to high jaundice levels.
Head	The head is appropriate for age and hair distribution is even. The circumference measured 32 cm.	Head circumference 33-37 cm. Normal varies with age, gender, and ethnicity.	The infant's head is a little small due to being 39 weeks gestation.
Fontanels	Anterior and posterior fontanels are soft and flat.	Soft and flat	Within defined limits.
Face	Full cheeks and is symmetrical when sucking, crying, and at rest.	Full cheeks and symmetric facial features.	Within defined limits.
Eyes	The eyes are symmetrically spaced with clear sclera. The eyes open spontaneously. The eyelashes and brows are per gestational age. No drainage noted.	Clear and symmetrical and online with ears.	Within defined limits.
Nose	The nose is symmetrically spaced and patent. There are no positional deformities or drainage. The baby breathes through both nostrils. No drainage noted.	Small, midline, narrow, and able to smell.	Within defined limits.
Mouth	The oral mucosa is pink and moist with no lesions or sores. Soft and hard palate is intact with no abnormalities.	Aligned in midline, symmetric, and an intact soft and hard palate.	Within defined limits.
Ears	Symmetrically spaced and responds to stimuli. The pinna is horizontal to inner canthus and are flexible with instant recoil. No edema, cerumen, or drainage noted.	Soft and pliable with quick recoil when folded and released.	Within defined limits.
Neck	The trachea is midline, and the neck is midline with the body. It is creased, moves freely, and short.	Short, creased, moves freely, and the infant holds the head midline.	Within defined limits.
Chest	Round, symmetric, and smaller than the head. The circumference measured 32 cm.	Round, symmetric, and smaller than the head. Circumference 30-33 cm.	Within defined limits.

Breath Sounds	All lobes anterior and posterior are equal and clear bilaterally. The infant breathed at 44 respirations per minute.	Equal and clear breath sounds in all lobes. 30-60 respirations/min	Within defined limits.

Heart Sounds	Apical pulse is regular and S1/S2 sounds heard. No S3/S4 sounds heard. Heart rate was 152 bpm.	S1, S2, S3 heart sounds with regular rate. Heart rate 100-160 bpm.	Within defined limits.
Abdomen	Soft, non-tender, and slightly protruded. No peristalsis and no bowel loops.	Protuberate contour, soft, three vessels in umbilical cord.	Within defined limits.
Bowel Sounds	Bowel sounds regular in all four quadrants.	10-30 clicks and gurgles per minute in all four quadrants.	Within defined limits.
Umbilical Cord	No drainage, redness, swelling, or odor noted. Three vessels visible.	Three vessels in the umbilical cord.	Within defined limits.
Genitals	Slightly swollen female genitals.	Swollen genitals from maternal estrogen.	Within defined limits.
Anus	The anus is midline, open, and a wink is present. Last bowel movement was 6/16/22.	Patent and able to pass stool.	Within defined limits.
Extremities	Upper and lower extremities bilaterally move freely with no webbing or hip click. Sole and palms are per gestational age. Joints have full range of motion. The baby has 10 fingers and 10 toes.	Extremities symmetric with free movement.	Within defined limits.
Spine	The spine is intact and midline with no dimples, tracts, or hair tuffs.	Midline with no hip dislocation, tuft, or dimple.	Within defined limits.
Safety • **Matching ID bands with parents** • **Hugs tag** • **Sleep position**	Patient does have matching ID bands with the parents, a Hugs tag, and is sleeping supine. The infant has a low safety risk.	The patient should have matching ID bands with the parents, have a Hugs tag on, and sleep in a supine position.	Within defined limits.

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? I determined the Ballard score was 36 indicating the baby is AGA. This was determined the Ballard Gestational Age scale.

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

Vital Signs, 3 sets (6 points)

Time	Temperature	Pulse	Respirations
Birth	37.8 C axillary	168 bpm	58 resp/min
4 Hours After Birth	36.8 C axillary	150 bpm	52 resp/min
At the Time of Your Assessment	36.9 C axillary	152 bpm	44 resp/min

Vital Sign Trends: The infant's vitals are stable with no major fluctuations.

Pain Assessment, 1 set (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0800	**NIPS**	**N/A**	**0**	**N/A**	**N/A**

Summary of Assessment (4 points)

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

The neonate was delivered on 6/14/22 at 2032 by an elective induction vaginal delivery. The Apgar scores were 8 and 9. The estimated date of delivery was 6/21/22 by transvaginal ultrasound. The new Ballard scale assessment placed the neonate as 38 weeks and 3 days and AGA. The prenatal history shows the presence of cannabinoids in the urine but otherwise unremarkable. The birth weight of the infant was 8 lbs 1.5 oz (3670 g) and 20.5 in (52.1 cm) in length. The head circumference and chest circumference were both 12.6 in (32 cm). All systems are within normal limits based on the assessment. The last set of vitals was: 36.9 C, 152 bpm, and 44 respirations per minute. The breath sounds x3 after delivery were within defined limits with the lowest rate being 44 respirations per minute. The neonate is exclusively breast feeding and is nursing well at a frequency of Q2-3H for about 20 minutes long. The bilirubin level at 24 hours was 9.7 mg/dL. The neonate has been in the hospital for 3 nights and is being kept an additional 3 more nights for phototherapy for the elevated bilirubin. The neonate will be expected to follow up with a pediatrician 48 hours after discharge.

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.**
Phototherapy	24 hours with breaks for feeding	The infant's bilirubin levels are elevated and increased more over 12 hours. The bilirubin needs to be excreted to avoid severely elevated bilirubin and the complications that follow.
Transcutaneous bilirubin	Every 24 hours	Track the progress of the bilirubin levels to ensure excretion of the bilirubin.

Discharge Planning (2 points)

Discharge location: The patient will go home.

Equipment needs (if applicable): Possible phototherapy light

Follow up plan (include plan for newborn ONLY): The neonate will follow up with the pedestrian for a well-baby check.

Education needs: How to use phototherapy, how to help decrease the infant's bilirubin levels, and how cannabis can affect infants.

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"	**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

components			outcomes, modifications to plan.
1. Interrupted breastfeeding related to infant illness as evidenced by continuous phototherapy.	**The infant has elevated bilirubin levels and has been prescribed continuous phototherapy until bilirubin levels are within normal limits.**	**1. Recommend the use of a breast pump to provide maximum stimulation and prolactin production.** **Rational: Give maximum stimulation and prolactin production (Phelps, 2020).** **2. Encourage storage of breast milk in a sterile container and store in the fridge or freezer.** **Rationale: This preserves breast milk to ensure neonate gains maternal antibodies and helps encourage maternal involvement in infant's care (Phelps, 2020).**	**These interventions were not discussed with the patient. The goals were not met.**
2. Neonatal hyperbilirubinemia related to liver malfunction as evidenced by increased bilirubin levels.	**The infant has elevated bilirubin levels that have not decreased with treatment.**	**1. Collect and evaluate laboratory blood specimens as ordered or per unit protocol.** **Rationale: This will allow for accurate and timely diagnosis and treatment of neonatal jaundice (Phelps, 2020).** **2. Provide caring support to family if a breastfed neonate must receive supplementation.** **Rationale: To help the mother overcome feelings of inadequacy if they occur (Phelps, 2020).**	**The laboratory blood specimen came back with a bilirubin level of 12.2 mg/dL. The other intervention was not implemented yet, so the goal was only partially met.**
3. Risk for ineffective coping related to neonatal hyperbilirubinemia as evidenced by mother crying and voicing that she is worried about her infant.	**The mother was visibly upset about the infant's elevated bilirubin.**	**1. Explain all treatments and procedures, and answer questions.** **Rationale: This helps alleviate fear and allow the parents have sense of control (Phelps, 2020).** **2. Encourage the parents to help with the infant's care.** **Rationale: This promotes cooperation and fosters a sense of control (Phelps, 2020).**	**The interventions were not implemented yet, so the goal has not been met.**
4. Powerlessness related to caregiver role as evidenced by the parents visibly distressed	**The parents were very concerned about their baby and voiced that they didn't know if the baby would get better.**	**1. Encourage the parents to express feelings and concerns.** **Rationale: This helps bring vaguely understood emotions into focus (Phelps, 2020).**	**The primary nurse did explain that many infants experience hyperbilirubinemia**

with neonatal hyperbilirubinemia .		**2. Help the parents learn about the health condition, treatment, and prognosis. Rationale: This assists in helping the parents have a sense of control (Phelps, 2020).**	**and that eating and defecating frequently will help lower bilirubin levels. The parents did seem less stressed. The goal was partially met.**

Other References (APA):

Phelps, L. L. (2020). *Sparks and Taylor's nursing diagnosis reference manual* (11th 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]

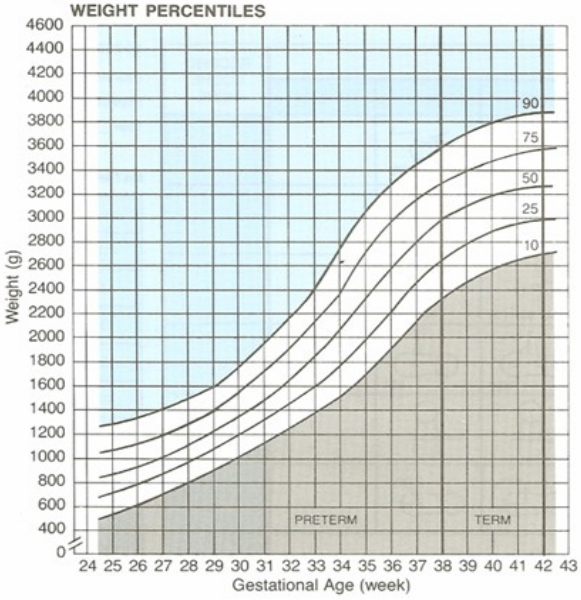
NAME _____ DATE OF EXAM _____ LENGTH _____

HOSPITAL NO. _____ SEX _____ HEAD CIRC. _____

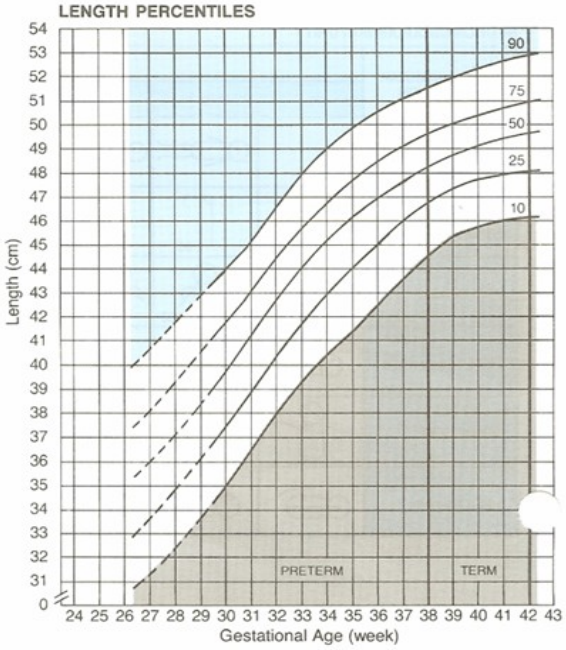
RACE _____ BIRTH WEIGHT _____ GESTATIONAL AGE _____

DATE OF BIRTH _____

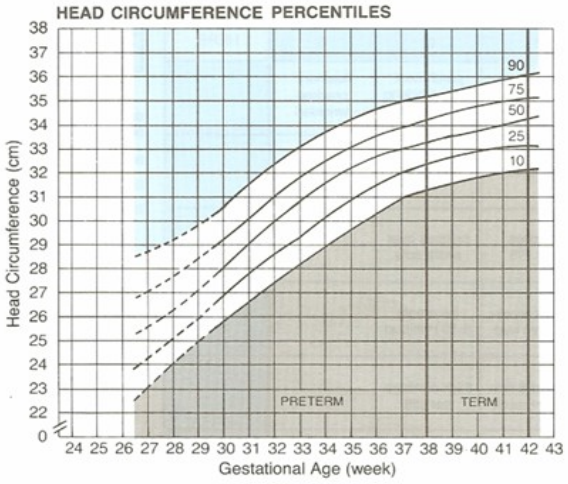
WEIGHT PERCENTILES



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