

Hyperbilirubinemia SKINNY Reasoning

Sarah Daniels, newborn infant

Primary Concept		
Elimination		
Interrelated Concepts (In order of emphasis)		
Clinical Judgment Patient Education		
NCLEX Client Need Categories	Percentage of Items from Each Category/ /Subcategory	Covered in Case Study
Safe and Effective Care Environment		
• Management of Care	17-23%	X
• Safe and Infection Control	9-15%	X
Health Promotion and Maintenance	6-12%	X
Psychosocial Integrity	6-12%	X
Physiological Integrity		
• Basic Care and Comfort	6-12%	x
• Pharmacological and Parenteral Therapies	12-18%	X
• Reduction of Risk Potential	9-15%	X
Physiological Adaptation	11-17%	X

SKINNY Reasoning

Part 1: Recognizing RELEVANT Clinical Data

History of Present Problem:

Sarah Daniels was born six hours ago by vaginal delivery after 22 hours of labor at 36 weeks gestation because of premature rupture of membranes. She weighed 9 lbs 0 ounces. (4090 g). Her Apgar was 8 at one minute and 9 at 5 minutes. Her newborn assessment revealed a cephalohematoma on the right-posterior aspect of her head. All other assessment data is within normal limits. Sarah has breastfed once since birth for seven minutes. She is noted to be sleepy when at the breast and not an aggressive feeder, consistent with her gestational age. She has voided once since birth, but has not yet stoolled.

Sarah's mom Morgan was a diet-controlled gestational diabetic. Morgan's prenatal labs are as follows: Blood type is O +, GBS is negative, Hepatitis B is negative. Her prenatal course was unremarkable other than the premature rupture of membranes.

Sarah's blood type is A+. Blood sugars were obtained per protocol starting at two hours after birth and have been consistently > 50 mg/dL. Her hematocrit was tested per protocol of a baby of a diabetic mother born before 37 weeks and was 48% four hours after birth. Twelve hours after birth, her transcutaneous bilirubin level is 6.1 mg/dL.

Personal/Social History:

Current VS:	NIPS Pain Assessment:
T: 98.3 F/36.8 C (axillary)	Facial Expression: Relaxed
P: 138 (regular)	Cry: No cry
R: 54 (regular)	Breathing Pattern: Relaxed
	Legs: Relaxed
	State of Arousal: Sleeping
	NIPS Score: 0

Morgan Daniels is a 22-year-old single mom who attends a local community college. The father of the baby is not involved. Morgan lives with her parents, who are supportive and available.

What data from the histories are RELEVANT and must be interpreted as clinically significant by the nurse?

Reduction of Risk Potential

RELEVANT Data from Present Problem:	Clinical Significance:
The prolonged labor prematurity cephalohematoma Hct low 9.0 pounds The infant weighs 4090 grams	Premature infants are at an increased risk for chances of having premature liver, this is indicative of the laboratory data. The Hct could indicate insufficient RBC, the mother did have gestational diabetes which caused the higher than average birth weight.
RELEVANT Data from Social History :	Clinical Significance:
The mother is a student, she is young (early 20's), no father involvement, and support from the family.	This is the mother's first baby at an early age, and she has the stressors of being a single mom, with no father involvement, and school. However, she does have the support from her mother's parents.

Patient Care Begins:

What VS data are RELEVANT and must be interpreted as clinically significant by the nurse?

Reduction of Risk Potential/Health Promotion and Maintenance

RELEVANT VS Data:	Clinical Significance:
Heart rate Respiratory rate	Heart rate is indicative Respiratory rate
Current Assessment:	
GENERAL APPEARANCE:	Calm, body flexed, no grimacing, appears to be resting comfortably
RESP:	Breath sounds clear, nonlabored respiratory effort. No grunting, retraction or nasal flaring noted
CARDIAC:	Heart sounds regular with no abnormal beats, S1 S2, brisk cap refill, no edema. Moderate systolic murmur present over a ex.
NEURO:	Sleeping • difficult to wake for feedings does not stay awake at breast. All reflexes intact
INTEG:	Facial jaundice noted, skin color pink with acrocyanosis. Cephalohematoma to right-posterior aspect of head. Swelling does not cross suture lines.

RELEVANT Assessment Data:	Clinical Significance:
Facial Jaundice noted Cephalohematoma	The facial jaundice indicates an increase in bilirubin levels noted by pathological jaundice. The cephalohematoma is from the birth canal.

Lab Results:

	Current:	Hi h/Low/WNL?
Bilirubin (m dL)	6.4	High
H b 15-24 dL	18	WNL
Hct 45-65%)	60	WNL
Glucose 40-60m dL)	55	WNL

What lab results are RELEVANT and must be interpreted as clinically significant by the nurse?

RELEVANT Lab(s):	Clinical Significance:	TREND: Improve/Worsening /Stable:
Increased Bilirubin levels	This increase is indicative of pathologic jaundice	Improve

Part 11: Put it All Together to THINK Like a Nurse!

- After interpreting relevant clinical data, what is the primary problem?
Management Care/Physiologic Adaptation

Problem:	Pathophysiology in OWN Words:
- Pathological jaundice	The increased bilirubin production in Pathologic jaundice is due to the hemolysis immune from ABO incompatibility, and cephalohematoma.

Collaborative Care: Medical Management

- State the rationale and expected outcomes of the medical management and Parenteral Therapies

Medical Management:	Rationale:	Expected Outcome:

<p>Obtain parental consent.</p> <p>Check body temp hourly.</p> <p>Place an eye mask over Sarah's eyes.</p> <p>Remove all clothing except for her diaper.</p> <p>Place Sarah on the Bilibed and under the bili lights.</p> <p>Accurate and strict I and O</p> <p>Repeat serum bilirubin level in 6 hours after phototherapy is initiated.</p>	<p>This gets permission form the mother that procedures may be done on her baby with permission.</p> <p>To protect baby from bright bili lights</p> <p>This will ensure that the baby's body is fully exposed to the bili lights.</p> <p>Increased bilirubin can decrease with bili light exposure.</p> <p>Ensuring adequate hydration to maintain fluid absorption of bilirubin and synthesis through the liver.</p> <p>Monitors for changes in the bilirubin levels.</p>	<p>The mother will complete the consent form.</p> <p>The infant's eyes will stay protected.</p> <p>The infant will receive all the bili light rays.</p> <p>Bilirubin levels will decrease.</p>
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Collaborative Care: Nursing

3. What nursing priorities will guide our plan of care? (Management of Care)

Nursing PRIORITY:		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
<p>The nurse will assess the skin for jaundice.</p> <p>The nurse places the infant in phototherapy.</p> <p>The nurse continues to monitor bilirubin levels.</p> <p>The nurse assesses the breastfeeding schedule.</p>	<p>Assesses the effectiveness of treatment and if the infant is improving or worsening.</p> <p>Helps to decrease bilirubin levels.</p> <p>Monitors for improvement or worsening.</p> <p>Ensures the newborn is receiving adequate nutrition.</p>	<p>The newborn will have pink skin.</p> <p>The newborns bilirubin levels decrease</p> <p>The newborn will receive adequate nutrition.</p>

4. What psychosocial/holistic care PRIORITIES need to be addressed for this patient?

Psychosocial Integrity [Basic Care and Comfort]		
Psychosocial PRIORITIES: Ensuring that the mother has support from her family, being the father is not involved.		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
CARE/COMFORT: Assisting the mother to have rest periods because of the lack of father involvement. Physical comfort measures	Being a single parent puts a lot of stress on the parent, because they are the sole caregiver 24/7 with no time off or in between.	The mother will take rest periods and ask for help from her parents.
EMOTIONAL (How to develop a therapeutic relationship): Asking the mother how she copes with stress.	This will aid the nurse in pinpointing resources.	The mother will be able to relieve some stressors.
SPIRITUAL: Asking the mother about her religious and spiritual practices.	This will give the nurse the opportunity to ask about outside resources outside of her house.	The mother will be able to reach out to her community for assistance when needed.

5. What educational/discharge priorities need to be addressed to promote health and wellness for this patient and/or family? (Health Promotion and Maintenance)

- a providing information about the types of jaundice, pathophysiological factors and future implications.
- b Discuss home management of mild to moderate jaundice and when to increase feedings, exposure to sunlight, and follow-up testing.
- c Educate the mother about maintaining milk supply by using breast pumps and
- d Prove the mother and family with support systems.
- e