

Hyperbilirubinemia

SKINNY Reasoning



Sarah Daniels, newborn infant

Primary Concept		
Elimination		
Interrelated Concepts (In order of emphasis)		
<ul style="list-style-type: none"> • Clinical Judgment • Patient Education 		
NCLEX Client Need Categories	Percentage of Items from Each Category/Subcategory	Covered in Case Study
Safe and Effective Care Environment		
<ul style="list-style-type: none"> • Management of Care 	17-23%	✓
<ul style="list-style-type: none"> • Safety and Infection Control 	9-15%	
Health Promotion and Maintenance	6-12%	✓
Psychosocial Integrity	6-12%	✓
Physiological Integrity		
<ul style="list-style-type: none"> • Basic Care and Comfort 	6-12%	✓
<ul style="list-style-type: none"> • Pharmacological and Parenteral Therapies 	12-18%	✓
<ul style="list-style-type: none"> • Reduction of Risk Potential 	9-15%	✓
<ul style="list-style-type: none"> • Physiological Adaptation 	11-17%	✓

Part I: 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:

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:
Delivery at 36 weeks, PROM cephalohematoma, voided but no BM, mom with gestational diabetes	preterm delivery which can result in organs not being developed
RELEVANT Data from Social History:	Clinical Significance:
single mom, father not involved but has supportive parents are involved	even though father is not involved she has supportive parents

Patient Care Begins:

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

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:
none	vital signs are normal

Current Assessment:	
GENERAL APPEARANCE:	Calm, body flexed, no grimacing, appears to be resting comfortably
RESP:	Breath sounds clear, nonlabored respiratory effort. No grunting, retracting or nasal flaring noted
CARDIAC:	Heart sounds regular with no abnormal beats, S1S2, brisk cap refill, no edema. Moderate systolic murmur present over apex.
NEURO:	Sleepy; 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 sutures lines.

RELEVANT Assessment Data:	Clinical Significance:
cephalohematoma on right posterior	there is pooling of blood because the vessels are damaged during delivery
difficult to wake for feedings	the baby is lacking proper nutrition

Lab Results:

	Current:	High/Low/WNL?
Bilirubin (<5 mg/dL)	6.4	high
Hgb (15-24 g/dL)	18	WNL
Hct (45-65%)	60	WNL
Glucose (40-60 mg/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:
bilirubin 6.4	This can show that liver damage can occur if consistent high bilirubin	improving

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

1. After interpreting relevant clinical data, what is the primary problem?

(Management of Care/Physiologic Adaptation)

Problem:	Pathophysiology in OWN Words:
preterm breast feeding issues jaundice	The baby is having issues with breastfeeding which can cause dehydration and high bilirubin. Preterm babies are more likely to have this problem because their organs are not mature. It is also harder for them to latch and suck

Collaborative Care: Medical Management

2. State the rationale and expected outcomes for the medical plan of care. *(Pharm. and Parenteral Therapies)*

Medical Management:	Rationale:	Expected Outcome:
Obtain parental consent. Check body temp hourly. Place eye mask over Sarah's eyes. Remove all clothing except for her diaper. Place Sarah on the Bilibed and under the bili lights. Accurate and strict I and O Repeat serum bilirubin level in 6 hours after phototherapy is initiated.	consent forms must be signed so the parents agree with treatment body temp will assure the baby's temperature is within a safe range The bili light will help with jaundice. The baby must only have a diaper on so that the light reaches the skin The mask will protect the eyes I and O will allow to see if the baby's nutrition is improving serum bili repeats will make sure the therapy is working	the mom agrees for the baby to be treated with the bilirubin lights and the baby's bilirubin improves

Collaborative Care: Nursing

3. What nursing priority (ies) will guide your plan of care? *(Management of Care)*

Nursing PRIORITY:		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
1. breast feeding 2. bilirubin levels	the baby must receive proper nutrition to help with the function of the organs The bilirubin levels will be decreased with the light so the liver does not fail	the mom will breast feed The baby's bilirubin levels will decrease

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

(Psychosocial Integrity/Basic Care and Comfort)

<p>Psychosocial PRIORITIES:</p>	<p>use therapeutic communication with the mother and ask about the parents and if they can help</p>	
<p>PRIORITY Nursing Interventions:</p>	<p>Rationale:</p>	<p>Expected Outcome:</p>
<p>CARE/COMFORT: Make sure the mother is able to get some rest Let her know that the nurses are there to help and support her</p> <p><i>Physical comfort measures</i> give the mother warm blankets and pillows Give a massage if wanted</p>	<p>With comfort and support the mother will have less stress and be able to rest well and have energy for when the baby goes home</p>	<p>the mother is well rested</p>
<p>EMOTIONAL (How to develop a therapeutic relationship): use therapeutic communication support the mother give her resources she may need</p>	<p>proper emotional support is needed in order for the mother to be able to properly cope and support post partum depression</p>	<p>The mother will cope well emotionally</p>
<p>SPIRITUAL: ask about religious beliefs</p>	<p>there may be chaplains or resources in the hospital to give the other support during this time</p>	<p>her emotional needs are met</p>

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

<p>the baby is on a feeding schedule, continue to monitor Intake and output Look at scleral and mucous membranes for yellow educate on proper sleeping educate on hypothermia, hypoglycemia, and hypoxia Watch for a change in the baby's mental state or LOC</p>
