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 stooled.

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: O

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 o Risk Potential

RELEVANT Data from Present Problem:	Clinical Significance:
Born at 36 weeks gestation 22 hour vaginal delivery 4,090 g (LGA) Right post. cephalohematoma Void x1, no bowel movement Breast fed once in 6 hours Mom is diet controled GD	Premature, with premature rupture of membranes, increased risk for infection Long delivery could have caused the cephalohematoma Still awaiting a bowel movement Infant should be feeding every 3-4 hours Blood sugar poc and LGA because of moms GD Bili above normal range
RELEVANT Data from Social History :	Clinical Significance:

Young mother Attends college Father is not invovled	Mother could have finanical difficulties due to young age, being in college, and no support from the babies father.

Patient Care Begins:

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

Reduction o Risk Potential/Health Promotion and Maintenance

RELEVANT VS Data:	Clinical Significance:
All vitals are within normal limits besides the RR	Infant appears to be adjusting to extrauterine life well

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, Sl S2, brisk cap refill, no edema. Moderate systolic murmur resent 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 sutures lines.

RELEVANT Assessment Data:	Clinical Significance:
Moderate systolic mumer Difficult to wake for feed Jaundice noted Cephalohematoma	Systolic murmers can be normal at this age but should be assessed Help the mother feed when needed, assess for poor feeding Pathological jaundice is before 24 hours old, infant is 6 hours old Monitor cephalohematoma

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: 1m rove/Worsening /Stable:
Bilirubuin is high	For infants less than 24 hours old jaundice is pathologic in nature and is seen during an assessment	Worsening bili was a 6.1 now it is a 6.4

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

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

Managemento Care/Physiologic Adaptation

Problem:	Pathophysiology in OWN Words:
Jaundice-pathologic	

Collaborative Care: Medical Management

2. State the rationale and expected outcomes or the medical Ian o care. (Pham. and Parenteral Therapies

Medical Management:	Rationale:	Expected Outcome:
Obtain parental consent.	Must be obtain prior to any procedures	Parent signs concent form
Check body temp hourly.	signs for bilirubin encephalopathy include fever	no fevers present
Place eye mask over Sarah's eyes.	protect infants eyes from light	eye mask worn at all times under the bili lights
Remove all clothing except for her diaper.	Maxium skin exposure to light	Infant increases length and frequency of feeds
Place Sarah on the Bilibed and under the bili lights.	Infant could experiance dehydration due to the lights and hasn't been eating well so I and O should be monitored	bili levels will decrease
Accurate and strict I and O	Bili levels are redrawn to assess if treatment is	
Repeat serum bilirubin level in 6 hours after phototherapy is initiated.		

Collaborative Care: Nursing

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

Nursing PRIORITY:		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
Infants vitals Infants blood sugar Bili levels keep under bili lights	Monitor for patient decline Infant hasn't been feeding well so checking blood sugars are important Need to be assessed to see if condition is improving Bili levels will improve under the lights	Vitals stay within normal range Blood sugars stays within normal range and infant starts feeding better bili levels decrease Infant is to stay under lights until condition improves

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

Psychosocial Integrity [Basic Care and Comfort]		
Psychosocial PRIORITIES:		
PRIORITY Nursing Interventions:	Rationale:	Expected Outcome:
CARE/COMFORT: Physical comfort measures		
EMOTIONAL (How to develop a therapeutic relationship):		
SPIRITUAL:		

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