Lakeview College of Nursing **Student Name** Breanna Schoonover
N433 Pediatrics Clinical Care Plan

CLINICAL DATE 10/19/19

Patient's Age: 6 days old, 0 months **Weight** (in kg) 2.9 kg **BMI** 11.98 kg
Year's months
Allergies/Sensitivities to medications, foods, contact, environmental, etc. Include reactions: No known allergies.

Chief Complaint (Reason for admission): Jaundice, increased bilirubin level. **Admit date: 10/18/19**

History of Present Illness (What events led up to this child being admitted to the hospital, etc.):

Baby is six days old and had her first check up yesterday in which blood was drawn and a bilirubin level of 20.3 was found. Patient was sent to ER at Carle hospital to undergo treatment for hyperbilirubinemia. Manifestation that appeared in patient were yellowing of the sclera of the eyes and yellowing of the rest of the body. Patient was placed under Bili Lights as phototherapy is one of the treatments for hyperbilirubinemia. Patient is to remain under the lights as much as possible, unless mother is breastfeeding or changing her. Frequent assessments and vitals are being done on my patient. Eye shields are placed on patient as she is under the lights, as we are checking that those are in place to protect her eyes while she is under the lights.

Pertinent Events during this Admission and Hospitalization (IV starts, lab test, etc.): Blood drawn upon admission (10/18) to check how much bilirubin was in the blood. Twenty-four hours later the blood was drawn again to recheck bilirubin levels to see if the phototherapy is working. Unfortunately, the bilirubin level increased, going from 0.3mg/dl on 10/18, to 0.5 mg/dl on 10/19. Further treatments may need to occur. However, I had lefts before I found out what they are going to do about these results.
Past Medical & Surgical History (illnesses, hospitalizations, immunizations, birth history-any complications?) Baby has no past medical or surgery history as she is six days old. Baby was born via vaginal delivery on 10/13/19.

Child's diagnosis: Hyperbilirubinemia. **Etiology of disease process** (what causes it): The liver is not mature enough, causing the bilirubin to not be metabolized fast enough.

Pathophysiology: **(What is the pathophysiology of this disease and what goes on in the body as a result of this disease? Put in your own words & site reference)**

Hyperbilirubinemia is the most common reason for neonates to be hospitalized. Hyperbilirubinemia causes a baby to be jaundice due to an increase in the bilirubin found in the blood (Cheever & Hinkle, 2018). Jaundice typically is seen in the newborn's head, especially in the sclera and mucous membranes, and gradually progresses down the thorax, abdomen, and extremities. Jaundice can either be physiologic or pathologic. Physiologic is what is considered benign, as it results from an increased bilirubin production due to the immaturity of the newborn's livers and the ability to breakdown red blood cells. Pathologic jaundice appears before 24 hours of age and is persistent after day 14, resulting from an underlying disease. (Cheever & Hinkle, 2018).
Treatments for hyperbilirubinemia include phototherapy.
Lab test in association with hyperbilirubinemia may include an elevated bilirubin level, direct or indirect. A CBC to review hemoglobin and hematocrit levels, a direct coombs test to determine antibody-coated rh positive RBCs in the newborn.
Diagnostic for hyperbilirubinemia includes a transcutaneous bilirubin level which is a noninvasive method to measure the bilirubin level (Cheever & Hinkle, 2018).

Reference

Cheever, K. & Hinkle, J., (2018) *Brunner and Suddarth's Textbook of Medical-Surgical Nursing.* (Fourteenth Edition.) Philadelphia, PA: Wolters Kluwer

Clinical Manifestations of the disease (circle those exhibited by your patient) – include lab values, tests, etc:

Drowsiness, pale-stools, poor sucking or feeding, dark urine, jaundice, yellowing of the skin and sclera.
A bilirubin level of 0.3 mg/dl**.**

Vital Signs: **(List your source for the Normal ranges)**

T: 36.6 C	**Temperature Normal Range:** 37.5 C
HR: 136	**HR Normal Range:** 80-180
RR: 32	**RR Normal Range:** 30-35
BP 77 / 43	**BP Normal Range:** 65-78 / 41-52
O2 98%, Room air.	**O2 Normal Ranges**: 95-100 Room air

Source for normal ranges:

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

Intake/Output: (IV, PO, Out & Deficits) **Intake: 300 ml. Patient is being breastfed every 3-4 hours. Output**: **210 ml**. Patient is using non-disposable diapers, two were weighed by 1200. **Deficit:** 90 ml.

Clinical Day Evaluation Data – Head to toe physical assessment (Do not use WNL or WDL)

NEUROLOGICAL Muscle tone and reflex reaction, noted.
MUSCULOSKELETAL Spine has no dimples or tufts of hair noted. Stable and symmetric with no crepitus or redness.
CARDIOVASCULAR Normal s1 and s2 sounds, RRR.
CHEST Round, symmetric and smaller than the head.
GASTROINTESTINAL Bowel sounds active in all quadrantes.
INTEGUMENTARY Normal, smooth, flexible skin turgor, well hydrated and warm.
HEENT Head: normocephalic, fontanels soft, flat and open. Ears: soft and pliable, quick recoil when folded and released. Eyes: clear and symmetrically placed. Nose: small, midline, narrow. Mouth: Midline, symmetric, intact soft and hard palate.

Pain History & assessment: Type, location, intensity & timing, precipitating factors, relief measures/interventions, rating scale used, physiological and/or behavioral signs, evaluation of pain status after medication is given:

FLACC Scale used:
FACE: 0, No particular expression.
LEGS: 0, Normal position, relaxed.
ACTIVITY: 0, Sitting in normal position with mother.
CRY: 0, No cry. awake.
CONSOLABILITY: Relaxed, content playing on mother's phone.

FLACC SCORE: 0, NO PAIN
No interventions needed for pain.

Lab Tests:

TEST	**NORMAL** (specific for age)			
RBCs	3.89-4.97	NA	NA	
Hgb	10.2-12.7	NA	NA	
Hct	31.0-37.7	NA	NA	
MCV	71.3-81.4	80.9	NA	
MCH	23.7-28.3	NA	NA	
MCHC	32.0-34.7		NA	
WBCs	5.14-13.38	NA	NA	
Neutrophils	1.54-7.92	NA	NA	
Eosinophils	0.03-0.53	NA	NA	
Basophils	0.01-0.06	NA	NA	
Monocytes	0.19-0.94	NA	NA	
Lymphocytes	1.13-5.52	NA	NA	
Platelets	202-403	NA	NA	
TEST	**NORMAL** (specific for age)			
Glucose	60-99	NA	NA	
Na^+	136-145	NA	NA	
Cl^-	98-107	NA	NA	
K^+	3.5-5.1	NA	NA	
Ca^{++}	8.5-10.1	NA	NA	
Phosphorus	NA	NA	NA	
Albumin	4-5.9	NA	NA	
Total Protein	NA	NA	NA	
BUN	7-18	NA	NA	
Creatinine	0.70-1.30	NA	NA	
TEST	**NORMAL** (specific for age)			
Liver Function Tests	NA	NA	NA	
Urinalysis	NA	NA	NA	
Urine specific gravity	NA	NA	NA	
Urine pH	NA	NA	NA	
Creatinine clearance	NA	NA	NA	
Other Labs: Bilirubin	<0.3 mg/dl	0.3 mg/dl	0.5mg/dl	In newborns the liver is not functioning to its fullest yet, resulting in a excessive amount of bilirubin in the blood. Jaundice is then seen in the baby, usually starting in the eyes and continuing gradually down the rest of the body (Klein, Quinn & Sorenson, 2017).

NA	NA	NA	NA	

Klein, D., Quinn, L., & Sorenson, M. (2017). *Pathophysiology: Concepts of Human Disease.* New York, NY. Pearson.

Diagnostic Studies:

TEST & RESULTS	**Correlation to current health status** (if abnormal)
Chest x-ray: NA	
CT Scan/MRI: **NA**	
Biopsy/Scope: **NA**	
Cultures: **NA**	
Other:	

List of active orders on this patient:

ORDER	**COMMENTS/RESULTS/COMPLETION**
Activity:	**Appropriate for age.**
Diet/Nutrition:	**Baby is being breastfed.**
Frequent Assessments:	**Vitals, skin assessment and**
Labs/Diagnostic Studies:	**Physical exam, blood test (to determine how much bilirubin is in the blood.**
Treatments:	**Light therapy (phototherapy)**
New Orders for Clinical Day	
ORDER	**COMMENTS/RESULTS/COMPLETION**
Blood levels drawn to check bilirubin in the blood.	**The results of the infants 24-hour bilirubin check had increased. Therefore, more intervention may be needed as this is not what we want.**

Teaching & Learning: Identified teaching need (be specific): Teaching included what is to be expected when a baby is placed under a phototherapy, how often baby should be under lights, and other details in association with the diagnosis and what is abnormal versus normal.

Summarize your teaching (prioritization in care, methods used, materials used, time to provide, etc.): The parents asked when the baby will be able to be out from under the lights and if a discharge is in their near future. With research, I informed them that the indications of how long a baby is placed under the light can vary. Many factors contribute to this such as the 24-hour bilirubin results, if the baby is eating well, and if baby is stooling and voiding well. Other teaching included the side effects that could be associated with the Bili lights. The side effect that I stressed was a pinpoint rash, which can appear due to an increasing temperature in baby. A newborn sweat gland isn't fully developed, resulting in an increase in temperature, producing a pinpoint rash. Informing the parents that this is a normal, expected finding and that they should not be alarmed is crucial.

Evaluation of your teaching (establish expected outcomes and describe if met; effectiveness of materials/approach, what next?): The parents of the baby informed be that they are glad to be informed about the rash, knowing that gave them relief. They were very determined that the baby will eat enough and won't be removed from Bili light for any other reason than being fed.

Developmental Assessment: Be sure to HIGHLIGHT the achievements of any milestone if noted in your child. Be sure to circle any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading.

Age Appropriate Growth & Developmental Milestones

1. Crying as this is their form of communication.
2. Demonstrated head lag.
3. Has a strong grasp reflex.

Age Appropriate Diversional Activities

1. Skin to Skin contact.
2. Sucking and Rooting reflexes.
3. Plantar Grasp.

Psychosocial Development: **Which of Erikson's stages does this child fit?** Trust vs. Mistrust.

What behaviors would you expect? Baby should display comfort needs (Crying when hungry, mad, etc.) these behaviors signifies the delayed gratification that infants began to learn.

What did you observe? Baby cried when she was hungry. However, after mom fed her, she was content. She also cried when we were taking vitals as she was mad.

Cognitive Development: **Which stage does this child fit, using Piaget as a reference?** Sensorimotor stage.

What behaviors would you expect? Baby should demonstrate the sucking and rooting reflex, the plantar reflex, the palmar reflex, Moro reflex, startle reflex, tonic neck reflex, Babinski reflex, and the stepping reflex.

What did you observe? Patient demonstrated all reflexes mentioned above.

Vocalization/vocabulary: Development expected for child's age and any concerns?
Crying is known as the first form of verbalization in an infant. My patient cried as expected when vitals were taken, which is an expected response. No concerns for my patient with this category.

Any concerns regarding growth and development? No concerns regarding growth and development.

Potential Complications that can occur because of this disease/disorder:

Potential Complication	Signs/Symptoms	Preventative Nursing Actions
1. Acute bilirubin encephalopathy.	• Listlessness • Difficulty waking • High-pitched cry • Poor sucking or feeding • Backward arching of the neck and body • Fever	• Asses temperature frequently, being sure to document. • Monitor how much patient breastmilk is being consumed with each feeding. • Ensure adequate nutrition, can assess weight to be sure baby is eating enough. • Ensure that baby is always under Bili light, unless baby is feeding.
2. Kernicterus.	• Involuntary/uncontrolled movements • Permanent upward gaze • Hearing loss • Improper development of tooth enamel	• Stress to the patient's parents that baby should be under the Bili lights, unless mom is breastfeeding her.

Nursing Care Plan

Nursing Diagnosis **Prioritize-most important to least**	Outcomes (Patient/Family will: …... and **give time line**) **(MUST BE MEASURABLE)**	Nursing Interventions **With rationale** **(At least 2 nursing interventions per outcome)**	Evaluation of **EACH** outcome
At risk for injury **Related to:** Environmental Conditions **AEB (as evidenced by):** A compromise in the infant's health due to interventions.	1.Infant will display a decrease in bilirubin within three days of care started. 2.Neonate will always be free of CNS involvement as we should always be preventing by promotion of the measures needed to decrease the risk.	1.Provide assessments to the infant in the daylight if possible. Rationale: This will give the nurse the best lighting when assessing for jaundice. 2.Observe the baby's skin, oral mucosa and the sclera of the eyes for yellowing discoloration. Rationale: this will determine the degree of the jaundice along with if the treatments given to the baby are working or if further treatments are needed. 1.assess infant for any changes in her behavior as this can determine if any neurological symptoms are starting to appear. Rationale: infants with increased bilirubin levels are at higher risk for neurological issues which is priority to prevent. 2.Monitor labs frequently, being sure to notify the provider of any changes. Rationale: Abnormal labs are big indicators of CNS involvement.	**Outcomes Met/** **Partially met/** **Not met (with Explanation)** 1.Partially met, as the baby's jaundice is decreasing. However, bilirubin levels are still not where we want them. 2.Not met, as the patient's bilirubin levels have increased in the 24-hour results. **What next?** Continue to monitor the baby for jaundice and labs, notifying the provider immediately of any changes. Also, different treatment may be needed soon to improve levels.

Nursing Care Plan

Nursing Diagnosis **Prioritize-most important to least**	Outcomes (Patient/Family will: ….. and **give time line**) **(MUST BE MEASURABLE)**	Nursing Interventions **With rationale** **(At least 2 nursing interventions per outcome)**	Evaluation of **EACH** outcome
At risk for deficient knowledge **Related to:** Lack of exposure to information **AEB (as evidenced by):** A request for information.	1.Mother will be able to verbalize an understanding of the treatments, cause and the possible outcomes of hyperbilirubinemia upon the teaching of the information and again reinforced upon discharge. 2.Mother will demonstrate the appropriate care of the infant right after the information was given and again upon discharge.	1.Provide information about the different types of jaundice and the future implication of jaundice. Also, being certain that the mother recognizes signs and symptoms to look for. Rationale: This promotes an understanding of the disease and reduces fear and anxiety. 2.Discuss home management of mild or moderate physiological jaundice, including the importance of increased feedings and follow-up serum testing. Rationale: This helps the parent understand more and they are then able to be more cooperative in the care of their child. 1.Review rationale for specific interventions such as the use of phototherapy and how the baby will need to stay under the light as much as possible, unless feeding. Rationale: This ensures that the parents understand the importance of the treatments and variables associated with it. 2.Discuss possible long-term effects of hyperbilirubinemia and the need for continued assessments and early interventions, such as when seeking medical help is necessary. Rationale: most of the effects cause neurological issues. Therefore, it is crucial to teach methods to prevent effects from happening.	Outcomes Met/ Partially met/ Not met (with explanation) 1.Met. Mother and father were able to relay back all the information that was provided to her. Showing a significant understanding, while also appearing less stressed. 2.Met. Mother and Father understood how important it was to keep their baby under the Bili lights. They only had her out when mother was breastfeeding her or feeding her. What next? Continue to provide education as needed and answer questions as needed.

N433 Medication Form

Patient Initials:lc Patient Age:6 days Patient Weight (in kg): 2.9kg

Scheduled Medications				
Medication **Trade & Generic Names, Pharmaceutical Class** **Action of the medication** (how does the medication work in the body **in your own words**)	**Dose, route, & frequency ordered for this patient**	**Concentration Available** **Why is this pt. taking this?**	**Calculate the safe dose ranges by what is given as a safe dose times the child's weight. Do this for a 24 hour period. (Show Calculations)** **Is this dose safe for this pt.?**	**Nursing Considerations** (at least 3 & must be appropriate for this patient, & include any labs that need to done to monitor pt. while taking this medication) **Contraindications** **Common side effects**
Poly-vi-sol (Adavite) **Class:** Vitamins **Action:** contains fat-soluble vitamins and most water-soluble vitamins that are necessary for normal growth and development.	**PO** **Daily** **10mg**	**Concentration Available** 10mg/1ml **Why is this pt. taking this?** To prevent vitamin deficiencies.	2.9kgx10mg =29mg **Is this dose safe for this pt.?** Yes, this dose is safe.	**Nursing Considerations** 1. Liquid preparation may be dropped directly under the tongue. 2. Give parenterally if patient can't accomplish PO. 3. Give medication after patient has been fed. **Contraindications** Hypersensitivity to the medication. **Common side effects** Urine discoloration.
Simethicone (Flatulex) **Class:** Antiflatulent **Action:** Causes the passage of gas through the GI Tract.	**20 mg** **Q4H** **PO**	**Concentration Available** 20mg/0.6ml **Why is this pt. taking this?** To help her pass gas by belching or passing flatus.	2.9kg x 20mg=58mg **Is this dose safe for this pt.?** Yes, this dose is safe.	**Nursing Considerations** 1. Shake well before administering. 2. Administer with food. 3. May be mixed with formula. **Contraindications** Infants who are colic **Common side effects** No known side effects

N433 CARE PLAN
GRADING RUBRIC FOR HOSPITAL

Name: _____ Date _____ Grade _____

Section	Definition	Possible Points	Final Points
Age/Weight/BMI	Age is written in years & months. Weight is calculated in kilograms. BMI is written correctly	1	
Allergies & reaction to each	Allergies/sensitivities to food, contact, environmental. Include reactions	2	
Chief Complaint/Medical Diagnosis/Co-existing Conditions	Chief complaint, reason for admission, current primary diagnosis. Are there any other health/medical co-morbidities?	3	
History of Present Illness	Describe what has happened to the child that caused this child to be admitted	5	
Pertinent Events during this Admission	i.e., Surgery, instability during hospitalization, diagnostic tests, IV starts, procedures	1	
Past Medical & Surgical History	Past surgeries, previous health issues and diagnoses	2	
Pathophysiology	Explain in your own words the pathophysiology of the current, primary diagnosis. If a resource is used, please site the reference.	5	
Vital Signs and I & O	All vital signs and document normal vital signs for child's age. **All** I & O is documented with deficits	2	
Clinical Day Evaluation	Head to toe physical assessment with comments (DO NOT use WNL/WDL) & emphasis on systems affected by chief complaint/medical diagnosis.	8	
Pain Assessment	OLDCART, pain rating and pain scale used	2	
Lab Tests	Labs day of clinical and prior tests (trend them if numerous test). Give rationale for abnormal lab tests.	2	
Diagnostic Studies	X-rays, biopsies, EKG, CT scans, MRI, scopes, cultures, etc.	2	
Patient Orders Clinical Day	Activity, diet, assessments, labs/studies, treatments, code status, etc.	1	
Clinical Day new orders	Activity, diet, assessments, labs/studies, treatments, code status, etc.	1	
Teaching and learning	Identify teaching need. Summarize teaching. Evaluate teaching.	3	
Developmental Assessment	3 Age appropriate growth and developmental milestones that should be expected for the child's age. 3 Age appropriate Divirsional/Distraction activities appropriate for child's age. Erikson's psychosocial development stage and behaviors expected for child's age. Piaget's cognitive development stage and behaviors expected for child's age. Vocalization/vocabulary development expected for child's age and is the child's language appropriate for that age. Any concerns regarding growth and development for the child.	6	
Potential Medical Complications	Complications that can occur because of primary medical diagnosis/disease/condition. Signs & Symptoms of complication. Preventative nursing actions.	6	

Nursing Diagnosis # 1 Related to or AEB	Nursing diagnosis is pertinent to patient condition/diagnosis. Reflects and supports current primary medical diagnosis R/T the pathophysiology for the current primary diagnosis/condition (not medical diagnosis). AEB: signs and symptoms that support the nursing diagnosis	4	
Expected Outcomes	Patient will/Family will…. and must have a desired outcome timeline. (Must be measurable, specific, & objective) (Ex: patient will ambulate around the nurse's station **once** during clinical or patient will verbalize **3** signs and symptoms of infection by the end of clinical day).	4	
Nursing Interventions	What nursing interventions will you do to support meeting the patient outcomes and give rationale for each intervention of why this intervention is important? (Need at least 2 interventions per outcome)	8	
Evaluations & What's Next	Goal met/partially met/not met, why or why not, what's next? (Explain your evaluation of outcomes met, partially met, or not met (i.e., patient/family was not able to verbalize 3 signs and symptoms of infection) What's next? (What is/are the next intervention/s for the patient/family to help them meet the intended outcome)?	3	
Nursing Diagnosis #2 Related To and AEB (as evidenced by)	Nursing diagnosis is pertinent to patient condition/diagnosis. Reflects and supports current primary medical diagnosis, **MUST** prioritize the most important nursing diagnosis to the least important R/T the pathophysiology for the current primary diagnosis/condition (not medical diagnosis). AEB: signs and symptoms that support the nursing diagnosis	4	
Expected Outcomes	Patient will/Family will…. and must have a desired outcome timeline. (Must be measurable, specific, & objective) (Ex: patient will ambulate around the nurse's station **once** during clinical or patient will verbalize **3** signs and symptoms of infection by the end of clinical day).	4	
Nursing Interventions	What nursing interventions will you do to support meeting the patient outcomes and give rationale for each intervention of why this intervention is important? (Need at least 2 interventions & rationale per outcome)	8	
Evaluations & What's Next	Goal met/partially met/not met, why or why not, what's next? (Explain your evaluation of outcomes met, partially met, or not met for each outcome (i.e., patient/family was not able to verbalize 3 signs and symptoms of infection) What's next? (What is/are the next intervention/s for the patient/family to help them meet the intended outcome)?	3	
Medications			
Scheduled & PRN	Trade/Generic name, Pharmacologic Class & Action of the medication. Indications for this patient.	3	
	Dose, Route, Frequency ordered for this patient	1	
	Concentration available and why is the child taking this medication	1	
	Calculate dose ordered times child's weight (give parameters for this medication if needed) and is this dose that's ordered safe for the child?	2	
	Three nursing considerations/implications for each medication specific to this patient and give Contraindications and Common Side Effects	3	
	Total Points Possible	**100**	

Total points for this care plan _____