Lakeview College of Nursing **Student Name** ___Emily Hustad_____
N433 Pediatrics Clinical Care Plan

CLINICAL DATE_____9/21/19_____

Patient's Age ____3 days_____ **Weight** (in kg) **___3.28 kg__** **BMI__11.9__**
Year's months

Allergies/Sensitivities to medications, foods, contact, environmental, etc. Include reactions: No Known Allergies

Chief Complaint (Reason for admission): Increased bilirubin Admit date: 9/20/19

Other co-existing conditions: N/A

History of Present Illness (What events led up to this child being admitted to the hospital, etc.): This 3 day old baby girl was born at 40 weeks, 2 days gestation on 9/18/19. Her total bilirubin at the time of being discharged from the hospital was 9.8 at 27 hours of life. At her first well-baby check, her total bilirubin was up to 15.9 at 38 hours of life. Besides hyperbilirubinemia, her mother denies that she has any fever, nausea and vomiting, or a rash. She also stated that the infant has good urine output and no diarrhea. The infant was admitted straight from the doctor's office following her first well-baby exam.

Pertinent Events during this Admission and Hospitalization (IV starts, lab test, etc.): The patient was started on overhead phototherapy upon admission to the pediatric unit at 1910 on 9/20/19. A capillary stick was performed at 0900 on 9/21/19 to check total bilirubin and the effectiveness of the phototherapy.

Past Medical & Surgical History (illnesses, hospitalizations, immunizations, birth history-any complications?)
The patient has no past medical or surgical history. Pregnancy complicated with positive GBS, asthma, GERD, threatened abortion, and insufficient antepartum care.

Child's diagnosis: Hyper Bilirubinemia **Etiology of disease process** (what causes it):

There are a few different types of hyperbilirubinemia, including physiologic, breastfeeding, and breast milk. Physiologic hyperbilirubinemia occurs in almost all neonates. Bilirubin production is increased due to shorter RBC life span in neonates, which causes the bilirubin level to rise up by 3-4 days of life and fall thereafter. Breastfeeding hyperbilirubinemia occurs in 1/6 of breastfed infants during the first week of their life. Breastfeeding increases enterohepatic circulation of bilirubin in infants who have decreased milk intake or dehydration. Breast milk hyperbilirubinemia develops after 5-7 days of life and peaks at about 2 weeks. It is thought to be caused by the increased intake of concentrated breast milk, which causes deconjugation and reabsorption of bilirubin. Considering that this patient developed hyperbilirubinemia at 38 hours of life, and the mother has had no issues breastfeeding other than nipple soreness, this baby most likely has physiologic hyperbilirubinemia.

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)**

Bilirubin is produced from the breakdown of hemoglobin into unconjugated bilirubin. Unconjugated bilirubin binds to albumin in the blood, which transports it to the liver where it is taken up by hepatocytes and conjugates with glucuronic acid to make it water-soluble. This is done by the enzyme diphosphogluconurate glucuronosyltranferase, or UGT (Capriotti & Frizzell, 2016). The conjugated bilirubin is excreted in the bile into the duodenum. In adults, bilirubin is then reduced and excreted. Since neonates have less bacteria in their digestive tract, less bilirubin is excreted. The bilirubin is then reabsorbed and recycled into circulation. This is called enterohepatic circulation of bilirubin.

Reference:

Capriotti, T., & Frizzell, J. P. (2016). Pathophysiology Introductory Concepts and Clinical Perspectives. Philadelphia, PA: F.A. Davis Company.

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

Clinical manifestations of neonatal hyperbilirubinemia include yellowing of the skin and sclera, poor feeding, lethargy, and increased total bilirubin >12.

Vital Signs: **(List your source for the Normal ranges)**T 97.7 F HR. 127 (NL for age) 120- 140 RR. 38 (NL for age) 30-60 B/P 66/ 46 (NL for age) 64-78/ 41-52 O2 sat. 98% Room Air or Oxygen: Room Air

Source- Vital Signs PowerPoint

Intake/Output: (IV, PO, Out & Deficits) Intake: 130 ml Output: 52 mL

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

Patient is awake and lying down on the bed for assessment. She is alert. Hair is thin and blonde in color. There are no abnormalities of the ears. There is some yellowing of the sclera bilaterally. PERRLA not determined. No abnormalities of the nose. Oral mucosa is pink and moist. Patient is Caucasian with a fair skin tone. There is slight yellow skin coloring, with no discoloration of the extremities. This coloring has improved in the last 12 hours according to RN. No rashes, bruises, or wounds noted at this time. Braden Scale is 25. S1 and S2 heart sounds noted. No murmurs, gallops, or rubs. Brachial pulses assessed and present 2+ bilaterally. No neck vein distention noted. Breath sounds are clear bilaterally in all four lobes. Respirations are irregular with a rate of 38 breaths per minute. No wheezes, crackles, or rhonchi noted. No accessory muscle use or retractions noted. SpO2 is 98% on room air. Patient is breastfed and getting cluster feedings. She is tolerating the feedings well. Bowel sounds are active in all four quadrants. She is having regular bowel movements and urinating regularly for her age. No NG, ostomy or PEG tube. Muscles are weak but equal in tone. Mother is present in the room and active in care. Patient is under overhead phototherapy with a combination of white and blue lights.

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: Infant scored a 0 for pain using the FLACC pain scale. The infant has not had pain since admission according to the charts.

Lab Tests:

TEST	NORMAL (specific for age)	Prior	Clinical Day	Correlation to current health status & comment on trending (comment only on abnormal lab results)
RBCs	4.10-5.55	N/A	N/A	
Hgb	13.9-19.1	N/A	N/A	
Hct	39.8%-53.6 %	N/A	N/A	
MCV	91.3-103.1	N/A	N/A	
MCH	31.3-35.6	N/A	N/A	
MCHC	33-35.7	N/A	N/A	
WBCs	8.04-15.4	N/A	N/A	
Neutrophils	1.6-6.06	N/A	N/A	
Eosinophils	1%-4%	N/A	N/A	
Basophils	0.5%-1%	N/A	N/A	
Monocytes	2%-8%	N/A	N/A	
Lymphocytes	20%-40%	N/A	N/A	
Platelets	218-419	N/A	N/A	

TEST	NORMAL (specific for age)	Prior	Clinical Day	Correlation to current health status & comment on trending
Glucose	60-99	N/A	N/A	
Na^+	136-145	N/A	N/A	
Cl^-	98-107	N/A	N/A	
K^+	3.5-5.1	N/A	N/A	
Ca^{++}	8.5-10.1	N/A	N/A	
Phosphorus	2.5-4.9	N/A	N/A	
Albumin	3.4-5.0	N/A	N/A	
Total Protein	6.4-8.2	N/A	N/A	
BUN	7-18	N/A	N/A	
Creatinine	0.7-1.3	N/A	N/A	

TEST	NORMAL (specific for age)	Prior	Clinical Day	Correlation to current health status & comment on trending
Liver Function Tests	ALT-7-56 AST-10-40 ALP-<350	N/A	N/A	
Urinalysis	Negative	N/A	N/A	
Urine specific gravity	1.000-1.030	N/A	N/A	
Urine pH	5.4-5.9	N/A	N/A	
Creatinine clearance	88-128	N/A	N/A	
Other Labs:		N/A	N/A	
Total Bilirubin	<12	15.9	11.9	A high bilirubin can be indicative of neonatal hyperbilirubinemia, which this patient had (Van Leeuwen & Bladh, 2017, p. 195).

Lab References:

Van Leeuwen, A. M., & Bladh, M. L. (2017). Davis's Comprehensive Handbook of Laboratory and Diagnostic Tests with Nursing Implications (7th ed.). Philadelphia, PA: F.A. Davis Company.

Carle Lab Values

Diagnostic Studies:

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

List of active orders on this patient:

ORDER	COMMENTS/RESULTS/COMPLETION
Activity:	**As tolerated.**
Diet/Nutrition:	**Breastfeeding- Cluster feeds.**
Frequent Assessments:	**N/A**
Labs/Diagnostic Studies:	**Bilirubin lab draw at 0900 on 9/20**

Treatments:	Phototherapy
New Orders for Clinical Day	
ORDER	**COMMENTS/RESULTS/COMPLETION**
Consult lactation coordinator	**The patient's mother was having nipple soreness from breastfeeding.**

Teaching & Learning: Identified teaching need (be specific): How to look for the return of Jaundice.

Summarize your teaching (prioritization in care, methods used, materials used, time to provide, etc.):

This teaching session is to help the mother of the baby understand signs and symptoms of jaundice in her baby upon discharge. Although it is rare for jaundice to return, it can happen and the mother should know how to look out for it. Signs of jaundice in babies include yellow tinge to the sclera and skin, weight loss, excess fussiness, and poor feeding. If these symptoms appear, a health care provider should be contacted. A good tip for the mother would be to put the baby near the window where she can get some sunlight for short periods during the day. I would utilize print outs to help with my teaching and send them home with the mother. I would provide this teaching during a time of the day that the baby is asleep, to ensure that the mother does not feel overwhelmed.

Evaluation of your teaching (establish expected outcomes and describe if met; effectiveness of materials/approach, what next?):
An expected outcome of the teaching would be that the mother has a better understanding of jaundice and signs to watch out for upon discharge. I would allow the mother to look over materials provided, and be available to answer any questions she may have.

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. Turns his or her head towards a parent's voice or sounds
2. Cries to communicate a need
3. Stops crying when the need is met

Age Appropriate Diversional Activities

1. Rattles
2. Music or singing to the baby
3. Talk or read to the baby

Psychosocial Development: Which of Erikson's stages does this child fit?

Trust vs. Mistrust

What behaviors would you expect?

Caregivers respond to the infant's basic needs by feeding, changing diapers, cleaning, touching, holding, and talking to the infant. When the caregiver responds in a timely manner to the infant's needs, the infant develops a sense of trust. When the caregiver does not respond to the infant's needs in a timely manner, there will be a sense of mistrust.

What did you observe?

The patient's primary caregiver was his mother, and she responded in a timely manner to her needs. She was exhausted from being in the hospital since giving birth, and wanted to rest. While she rested, the nurse held and rocked the baby. Even though the mother took a break, the baby's needs were still being met. There was a strong sense of trust between the baby and caregivers.

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

Sensorimotor

What behaviors would you expect?

The baby would use senses and motor skills to learn about the world. From 0-1 month, she is in the stage of reflex acts. This means she responds to external stimulation with innate reflex actions. For example, if I were to brush her mouth with my finger, she would suck it reflexively.

What did you observe?

The baby had basic reflexes, and would wrap her hand around my finger, utilizing her palmar grasp reflex. I believe that she is right on track with her reflexes and the sensorimotor stage.

Vocalization/vocabulary: Development expected for child's age and any concerns?

Before one month, infants are expected to cry to communicate. This baby had no issues with crying and I saw no concerns.

Any concerns regarding growth and development?

No.

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

Potential Complication	Signs/Symptoms	Preventative Nursing Actions
1. Bilirubin Encephalopathy	Signs and symptoms of bilirubin encephalopathy include extreme jaundice. stupor or coma, no feeding shrill cry, muscle rigidity, and seizures. A blood test will show a total bilirubin level greater than 25.	Actions that were done to prevent bilirubin encephalopathy in this patient include assessments. These include skin assessments to look for jaundice, as well as feeding assessments and general assessments to check for other abnormalities. Bilirubin lab draws also helped the healthcare team to determine if her bilirubin levels were improving.

2. Kernicterus	Signs and symptoms of kernicterus include drowsiness, shrill crying, fever, unusual eye movements, stiffness, and seizures. MRI will reveal abnormalities of the brain corresponding with deposits of unconjugated bilirubin.	Actions that were done to prevent kernicterus were similar to those of hepatic encephalopathy. Assessments and bilirubin lab draws are important to monitor to ensure that bilirubin does not get too high to the point of bilirubin encephalopathy or kernicterus.

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
Risk for Injury Related to: CNS involvement from high bilirubin AEB (as evidenced by):	1. The patient will display bilirubin levels <12 at 3 days of age. 2. The patient's hyperbilirubinemia will be free of CNS involvement.	Observe sclera and skin for jaundice frequently. This will help to determine the degree of jaundice and if it is improving or getting worse. Monitor bilirubin levels as ordered. This will help to monitor the degree of the hyperbilirubinemia and its improvement or decline. Evaluate nutritional levels. Hypoproteinemia can be a cause of jaundice in a newborn. This could help to determine the cause and reverse the problem before the CNS becomes involved. Assess infant for progression of signs/symptoms and behavioral changes. Behavioral changes, such as lethargy, fever, and convulsions, can be associated with CNS involvement, including encephalopathy or kernicterus.	Outcomes Met/ Partially met/ Not met (with Explanation) 1. This outcome was met, as the patient's bilirubin was 11.9 at 3 days of life. 2. This outcome was met prior to the end of my shift, but will need to be reevaluated more than once. The patient did not display any signs or symptoms of CNS involvement prior to the end of my shift.

			What next? The patient is to be discharged later during this same day since her bilirubin was within normal limits. The patient should continue to be monitored for behavioral changes that could indicate CNS involvement.

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
Interrupted Family Processes Related to: Infant with Acute Disorder and need for prolonged hospitalization	1. The family will seek external support when necessary during my shift.	Acknowledge the family's involvement in care and promote strengths. This will help the family members to stay strong and motivated during hospitalization. Provide the family with information and guidance related to the patient, and encourage the family to schedule periods of rest.	Outcomes Met/ Partially met/ Not met (with explanation) 1. This outcome was met. The mother of the infant asked the nurse and myself to stay with the baby while she took a nap.

AEB (as evidenced by): The mother's exhaustion	2. The family will communicate and share concerns within the family unit prior to discharge.	Assess the family's character, relationships, and role patterns. This will help the nurse better understand the family unit and allow for the development of an individualized care plan. Assess previous behaviors. This will allow the nurse to determine what kind of coping worked well in the past for this family and allow for prediction of how current issues will be handles.	2. This outcome was not met. The only family member with this patient during my shift was her mother, so communication within the family could not yet be evaluated. What next? Prior to discharge, the family should be assessed to determine how they will handle taking home the baby.

Reference:

Swearingen, P. L. (2016). ***All-In-One Nursing Care Planning Resource*** **(4th ed.). St. Louis, Missouri: ELSEVIER**

N433 Medication Form

Patient Initials: R. C. Patient Age: 3 days Patient Weight (in kg): 3.28 kg

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 (pediatric multivitamin)	**Assigned by instructor**	**Assigned by instructor** **For additional iron/vitamins**	**1 mL/day is the recommended dose for babies. Dose not assigned by instructor to determine if dose is safe.**	**NC: Shake the bottle well** **Use by date on bottom of bottle** **Dispense slowly towards inner cheek** **CI: Sickle Cell Anemia** **Diverticular Disease** **SE: Fever** **Black, tarry stools**
Bicarsim (simethicone)	**Assigned by instructor**	**Assigned by instructor** **For gas relief**	**20 mg per dose. Max is 240 mg/day. Dose not assigned by instructor to determine if dose is safe.**	**NC: Take after meals and at bedtime** **Measure with measuring spoon or cup** **Can be mixed with water, formula, or other liquids** **CI: PKU** **Hypersensitivity** **SE: Constipation** **Pruritus**

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**

Medication Reference:

Vallerand, A. H., Sanoski, C. A., & Deglin, J. H. (2015). Davis's Drug Guide for Nurses (14 ed.). Philadelphia, PA: F.A. Davis Company.

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 _____