N433 Care Plan #1

Lakeview College of Nursing

Mary Jensen

Demographics (3 points)

Date of Admission 6/17/2020	**Patient Initials** BL	**Age (in years & months)** 5 years, 6 months	**Gender** Female
Code Status Full Code	**Weight (in kg)** 16 kg	**BMI** 11.9	**Allergies/Sensitivities (include reactions)** NKDA

Medical History (5 Points)

Past Medical History:

Illnesses: Sickle Cell disease – patient diagnosed at 6-months old, vaso-occlusive crisis

Hospitalizations: Patient has had two hospitalizations, one for vaso-occlusive crisis at 4-years old and once at 3 years old for a fever.

Past Surgical History: None

Immunizations: Patient's immunizations are up to date.

Birth History: N/A

Complications (if any): N/A

Assistive Devices: N/A

Living Situation: Lives at home with parents.

Admission Assessment

Chief Complaint (2 points): Right lower leg pain

Other Co-Existing Conditions (if any): Sickle Cell Disease

Pertinent Events during this admission/hospitalization (1 points):

The patient was given oral analgesics to reduce pain, she has an IV with D5 ½ NS running at 52 ml/hr, and she has been ingesting small amounts of oral fluids as tolerated.

History of present Illness (10 points):.

Patient is a 5-year-old who presents to the emergency department with pain in the right lower leg that began two days ago. Patient does not describe the characteristics of the pain but identifies the severity of her pain as a 5 on the FACES scale. The patient does not want anyone to touch her leg during the examination due to worsening pain. In the past during pain crisis the patient has been able to manage pain with acetaminophen and ibuprofen. After interventions performed in the ED the patient now rates her pain as a 3 on the FACES scale.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Sickle Cell Anemia

Secondary Diagnosis (if applicable): N/A

Pathophysiology of the Disease, APA format (20 points):

Sickle cell anemia is an inherited blood disorder causing the red blood cells to carry an abnormal form of hemoglobin, which does not allow red blood cells to carry an adequate amount of oxygen (Capriotti & Frizzell, 2016). Instead of the normal hemoglobin A, in sickle cell anemia, the hemoglobin A is replaced with hemoglobin S resulting in sickle-shaped red blood cells (Ricci et al., 2017). Sickling of the red blood cells typically occurs when the red blood cells are subjected to stress, infection, hypoxia, or dehydration; this causes a reaction resulting in a distorted sickle shape (Capriotti & Frizzell, 2016). Sickle cell disease causes a lower life expectancy in red blood cells, which can cause hemolytic anemia (Capriotti & Frizzell, 2016). The body can be affected by sickle cell disease in many ways. Capillaries in the body often become obstructed by the sickle-shaped cells, which is referred to as a vaso-occlusive crisis that causes hypoxia, ischemia, and sometimes infarctions (Ricci et al., 2017). When circulation

decreases to an area of the body (commonly the joints) in patients with sickle cell disease, it is called a pain crisis. A pain crisis can result in tachycardia and tachypnea due to an increase in metabolic needs (Ricci et al., 2017). Sickle cell disease may also affect the lungs during acute chest syndrome and splenomegaly related to the rapid death of red blood cells, causing the spleen to overwork (Ricci et al., 2017). This patient is currently experiencing a pain crisis and, in the past, has been admitted for a vaso-occlusive episode.

The signs and symptoms associated with sickle cell disease are typically related to the amount of abnormal Hgb S found in the patient (Hinkle & Cheever, 2018). Hemoglobin is always low in patients with sickle cell; patients can exhibit jaundice and may have enlarged facial and skull bones (Hinkle & Cheever, 2018). Patients with sickle cell disease typically report pain, shortness of breath, pallor, cool extremities, dizziness, and headaches (Homan et at., 2019). This patient has low Hgb, and Hct is experiencing pain and cool to touch extremities and is tachycardic, all of which are typical findings of a child with sickle cell anemia.

When diagnosing a patient with sickle cell disease, a blood sample is taken and assessed for Hgb S; if it is present, hemoglobin electrophoresis is performed to determine if the patient has sickle cell disease or if they are a carrier (Capriotti & Frizzell, 2016). Patients may also have a CBC to assess for anemia and blood smear done to confirm the sickle-shaped RBCs (Capriotti & Frizzell, 2016).

The treatment for sickle cell disease includes the prevention of complications and the management of symptoms through hydration, pain medications, oxygen administration, and prophylactic antibiotics (Capriotti & Frizzell, 2016). Patients are frequently prescribed folic acid supplements to enhance erythropoiesis (Hinkle & Cheever, 2018). Other treatments used for sickle cell disease are more aggressive, including hematopoietic stem cell transplants,

chemotherapy medications such as Hydroxyurea, and blood transfusions (Hinkle & Cheever, 2018). The current patient is utilizing pain management through opioid analgesics and NSAID medications, she is also receiving fluids to improve hydration status, and folic acid supplements while in the hospital.

Several complications can occur in patients with sickle cell disease, including a vaso-occlusive crisis and acute chest syndrome (Hinkle & Cheever, 2018). During an acute vaso-occlusive crisis, erythrocytes and leukocytes become trapped in the capillaries resulting in inflammation, hypoxia, and necrosis of the tissue (Hinkle & Cheever, 2018). An infection typically initiates acute chest syndrome and can also be caused by different kinds of pulmonary embolisms (Hinkle & Cheever, 2018). Patients experiencing acute chest syndrome will often present with respiratory distress, fever, and positive signs of infiltration on a chest x-ray (Hinkle & Cheever, 2018).

Pathophysiology References (2) (APA):

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

Hinkle, J.L., Cheever, K.H.(2018).*Brunner & Suddarth's textbook of medical-surgical nursing*(14th ed.). Wolters Kluwer.

Homan, H., Williams, D, Sommer, S, Johnson, J., Wheless, L., Wilford, K., and McMichael, M. (2019). *ATI: RN nursing care of children* (11th Ed.). Assessment Technologies Institute, LLC.

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

Active Orders (2 points)

Order(s)	Comments/Results/Completion
Activity:	**N/A**
Diet/Nutrition:	Encourage oral intake of fluids.
Frequent Assessments:	Vitals signs are to be taken every 4 hours. Continuously monitor pulse oximetry and oxygen level to keep SpO2 above 94%. Call the physician if the patient's temperature is above 38.0 C or if the systolic BP is less than 88 or over 120, if the diastolic BP is less than 46 or above 76. Also call the doctor if the heart rate is below 80 bpm or over 130 bpm, respiratory rate is under 18 or more than 30 breaths/min, and if her SpO2 is less than 95% on room air.
Labs/Diagnostic Tests:	CBC and CMP completed daily
Treatments:	Patient is currently receiving D5 ½ NS at 52ml /hr, starting at 0600. Patient received codeine elixir 8mg by mouth at 0600 and can receive every 4 hours. Patient was also given acetaminophen elixir 240 mg PO at 0600 and can receive again in 6 hours. Patient was given a one-time dose of morphine sulfate 2mg IV push after stating pain was a 3/5. Patient is to take 160mg of ibuprofen elixir PO at 0900 and every 6 hours after that, this has not been completed. Patient is to be given

	docusate sodium 100 mg PO, daily, this has not been given.
Other:	
New Order(s) for Clinical Day	
Order(s)	**Comments/Results/Completion**
Administer a 250 ml bolus of NS IV over 30 minutes.	A 250 ml bolus of NS IV given over 30 was started.

Laboratory Data (15 points)

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range (specific to the age of the child)	Admission or Prior Value	Today's Value	Reason for Abnormal Value
RBC	**4.4 - 5.4 x10^9 /L**	**N/A**	5.1 x10^9 / L	
Hgb	**13.5 – 17.5 g/dL**	**N/A**	9.8 g/ dL	This patient has sickle cell anemia and hemoglobin is generally decreased in patients with sickle cell anemia (Capriotti & Frizzell, 2016).
Hct	**40-45%**	**N/A**	29%	Individuals experiencing sickle cell

				crisis such as this patient are typically seen with a decreased (Capriotti & Frizzell, 2016).
Platelets	**150-400 x10^9 /L**	**N/A**	330 x10^9 / L	
WBC	**4 – 11 x10^9 /L**	**N/A**	10.8 x10^9 / L	
Neutrophils	**1.60-7.80 x10^9/L**	**N/A**	N/A	
Lymphocytes	**1.60-5.30 x10^9/L**	**N/A**	N/A	
Monocytes	**0.30-0.90 x10^9/L**	**N/A**	N/A	
Eosinophils	**<0.5 x10^9/L**	**N/A**	N/A	
Basophils	**<0.1 x10^9/L**	**N/A**	N/A	
Bands	**<1**	**N/A**	N/A	

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission or Prior Value	Today's Value	Reason For Abnormal
Na-	**133-143 mEq/L**	**N/A**	139	
K+	**3.6-4.6 mEq/L**	**N/A**	4	
Cl-	**101-111 mEq/L**	**N/A**	108	
Glucose	**65-140 mg/ dL**	**N/A**	84	
BUN	**8-23 mg/dL**	**N/A**	10.9	
Creatinine	**0.8 – 1.4 mg/dL**	**N/A**	0.4	Sickle cell anemia can cause hyposthenuria which is dilution of urine which would cause a decreased creatinine level (Ricci et al., 2017).
Albumin	**3.6-5.2**	**N/A**	N/A	

Total Protein	**6.0-8.0**	**N/A**	N/A	
Calcium	**8.5-10.9 mg/dL**	**N/A**	N/A	
Bilirubin	**< 1.2**	**N/A**	N/A	
Alk Phos	**100-320 U/L**	**N/A**	N/A	
AST	**13-35 U/L**	**N/A**	N/A	
ALT	**10-25 U/L**	**N/A**	N/A	
Amylase	**25-101 U/L**	**N/A**	N/A	
Lipase	**< 160**	**N/A**	N/A	

Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
ESR	**0-10 mm/hr**	**N/A**	N/A	
CRP	**0**	**N/A**	N/A	
Hgb A1c	**< 5.7**	**N/A**	N/A	
TSH	**0.5-3**	**N/A**	N/A	

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
Color & Clarity	**Yellow (light/pale-amber) & clear**	**N/A**	N/A	

pH	**4.5-8**	**N/A**	N/A	
Specific Gravity	**1.005-1.025**	**N/A**	N/A	
Glucose	**Negative**	**N/A**	N/A	
Protein	**Negative**	**N/A**	N/A	
Ketones	**Negative**	**N/A**	N/A	
WBC	**≤ 5**	**N/A**	N/A	
RBC	**≤ 3**	**N/A**	N/A	
Leukoesterase	**Negative**	**N/A**	N/A	

Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Admission or Prior Value	Today's Value	Explanation of Findings
Urine Culture	**Negative**	**N/A**	N/A	
Blood Culture	**Negative**	**N/A**	N/A	
Sputum Culture	**Negative**	**N/A**	N/A	
Stool Culture	**Negative**	**N/A**	N/A	
Respiratory ID Panel	**Negative**	**N/A**	N/A	

Lab Correlations Reference (APA):

Homan, H., Williams, D, Sommer, S, Johnson, J., Wheless, L., Wilford, K., and McMichael, M. (2019). *ATI: RN nursing care of children* (11th Ed.). Assessment Technologies Institute, LLC.

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

Wolters Kluwer Health. (2020). *Pediatric case 4: Brittany Long.* the Point. Wolters Kluwer. Website

Diagnostic Imaging

All Other Diagnostic Tests (5 points): N/A

Diagnostic Test Correlation (5 points): N/A

Diagnostic Test Reference (APA):

Current Medications (8 points)
****Complete *ALL* of your patient's medications****

Brand/Generic	**Folvite/ Folic acid**	**Tylenol/ Acetaminophen elixir**	**Advil/ Ibuprofen elixir**	**Colace/ Docusate sodium**	**Duramorph/ Morphine sulfate**
Dose	0.4 mg	240 mg	160 mg	100 mg	2 mg
Frequency	Daily	Q6 hours	0900 daily, Q6 hours	Daily	One-time dose
Route	PO	PO	PO	PO	IV
Classification	Vitamin	Non-opioid analgesic	NSAID	Laxative, Stool softener	Opioid analgesic
Mechanism of Action	Contributes to DNA synthesis and erythropoiesis	Blocks prostaglandin production inhibiting pain impulse, also affects hypothalamus for temperature-regulation	Inhibits cyclooxygenase to reduce prostaglandin and thromboxane synthesis	Increases the amount of water mixing with the stool making the stool softer.	Binds to various opioid receptors resulting in sedation and analgesia
Reason Client Taking	Vitamin B9 deficiency anemia	Pain management for moderate to severe pain	Pain management, inflammation, fever reducer	Constipation	Pain management for severe pain
Concentration	400mcg	160 mg/ 5ml	N/A	N/A	0.025 -0.206

Available					mg/kg/hr
Safe Dose Range Calculation	75-400 mcg/day	15mg/kg/dose	10mg/kg/dose	20-60 mg in 1-4 divided doses	0.15mg/kg/ dose
Maximum 24-hour Dose	400 mcg	1200 mg	2400 mg	60 mg	2.4 mg
Contraindications (2)	Hypersensitivity reaction, Kidney disease	Hepatic impairment, Active liver disease	Aspirin triad, advanced renal disease	GI obstruction, appendicitis	Respiratory depression, asthma
Side Effects/Adverse Reactions (2)	Rash, nausea	Abdominal pain, fatigue	Photosensitivity, drowsiness	Electrolyte imbalance, diarrhea	Nausea/ vomiting, headache
Nursing Considerations (3)	Assess patient for signs of hypersensitivity. Do not administer to patients with kidney disease, undiagnosed anemia, or that are alcoholics. Store the medication away from moisture and heat at room temperature	Use caution in pt. with hepatic impairment. Monitor renal function in patient using long term. Assess patient's ALT and AST labs before administering.	Monitor patient for thrombolytic events. Assess skin for signs of a hypersensitivity reaction. Monitor CBC for a decreased Hgb and Hct.	Assess patient for excessive use/abuse. Give patient plenty of liquids with medication. Do not use with mineral oil.	Do not crush pills. Do not give with other sedatives. Assess respiratory status before administering.
Client Teaching needs (2)	Take with a full glass of water. Seek medical attention is you have signs of an overdose such as numbness,	If taking any OTC medications check the labels to see if then contain acetaminophen. Stop taking if	Do not take more than the recommended dose. Take with food or water to avoid GI upset.	Have patient take with a full glass of milk or water. Do not take when patient is experienci	This should not be taken within 14 days of taking MAOIs. Do not share medication with other people.

	tingling, pain in the tongue or mouth	you have a fever after 3 days of using.		ng abdominal pain, nausea, or vomiting.	

Medication Reference (APA):

Epocrates | Point of care medical application (n.d.). Retrieved June 18, 2020, from http://www.epocrates.com/

Jones, et. Al. (2019). *Nurse's Drug Handbook (18th ed.).* Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Patient is A&O x4. She is in mild distress due to pain, shown by grimacing facial expressions and groaning. Overall patient appears well groomed.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin is consistent with stated ethnicity, dry, and intact. Patient's extremities are cool to touch except for the right leg which is warm to touch. Patient's skin turgor is elastic. She has no noted bruises, rashes, or wounds. Patient is a low fall risk with a Braden score of 20.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:** **Thyroid:**	Patient's head is normocephalic and trachea is midline. Eyes are symmetrical, PERRLA is noted, and pupils are 6mm. No signs of vision changes, blurry vision, or drainage. Nose is centered with no deviation to the septum, no signs or drainage or epistaxis. Mucus membranes are moist, pink, and intact.

CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	**Patient is in sinus tachycardia with a heart rate of 130. S1 and S2 are heard, no murmurs, gallops, or rubs noted. Patient's bilateral upper and lower extremities were 3+ and capillary refill was less than 2 seconds.**
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Patient's lung sounds are clear to auscultation in all lobes and respirations are even and unlabored bilaterally.**
GASTROINTESTINAL (2 points): **Diet at home:** **Current diet:** **Height (in cm):** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	**Patient's home and current diet were not applicable at this time. She is 116cm tall. Her last BM is unknown at this time. The patient has normoactive bowel sounds in all four quadrants with no distention, scarring, incisions, drains, or wounds noted.**
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Patient has no known urinary output at this time. The color, quantity, and character of her urine are unknown, and she is not receiving dialysis treatment.**
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:**	Patient has bilateral full active ROM in both upper and lower extremities. Bilateral strength in upper extremities and lower extremities is 5/5.

Supportive devices: **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score: 30** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	Patient is up ad lib with standby assistance. She is a low fall risk with a score of 30.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**Patient is A&O x4 and PERRLA is noted. Patient's mental status is appropriate for her age. Her speech is clear and her sensory and LOC are at baseline.**
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s) of caregiver(s):** **Social needs (transportation, food, medication assistance, home equipment/care):** **Personal/Family Data (Think about home environment, family structure, and available family support):**	**The patient's mother is at the bedside and is knowledgeable about the manifestations of sickle cell disease. Patient's mother is the main support system and caretaker for the patient. The patient and her mother received education on support systems and community programs**

Vital Signs, 1 set (2.5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0703	130 bpm	108/73	24 breaths/min	37.2 C	98%

Normal Vital Sign Ranges (2.5 points)
****Need to be specific to the age of the child****

Pulse Rate	60-110 bpm
Blood Pressure	Systolic 86-117 , Diastolic 47-76
Respiratory Rate	21-25 breaths/ minute
Temperature	37 degrees C

Oxygen Saturation	95-100%

Normal Vital Sign Range Reference (APA):

Homan, H., Williams, D, Sommer, S, Johnson, J., Wheless, L., Wilford, K., and McMichael, M. (2019). *ATI: RN nursing care of children* (11th Ed.). Assessment Technologies Institute, LLC.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0600	FACES	Right lower leg	3/5	N/A	The child received a 250ml bolus of NS over 30 min, 2mg of Morphine IV push, and was given a toy dog.
Evaluation of pain status *after* intervention	FACES	N/A	0/5	N/A	No interventions needed.
Precipitating factors: The pain says that the pain worsens in her right leg with any movement. **Physiological/behavioral signs:** The patient is tachycardic and has a low-grade temperature accompanied by facial grimaces and moaning.					

Intake and Output (1 points)

Intake (in mL)	Output (in mL)
302ml IV **25 ml oral**	No output was noted during this time.

Developmental Assessment (6 points)

Be sure to highlight the achievements of any milestone if noted in y our child. Be sure to highlight any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading

Age Appropriate Growth & Development Milestones

1. Patient should gain between 2-3 kg each year (Homan et al., 2019).
2. Patient is expected to grow 6.2-9 cm per year (Homan et al., 2019).
3. Patient should be able to feed and dress herself (Homan et al., 2019).

Age Appropriate Diversional Activities

1. Playing dress up and pretend Role playing
2. Hand puppets
3. Reading books

Psychosocial Development:

Which of Erikson's stages does this child fit?

This child is in Erikson's initiative vs guilt stage.

What behaviors would you expect?

Children in the initiative vs guilt stage are typically very energetic, talkative, and eager to learn, while also exhibiting signs of guilt when a task given to them in incomplete or when they have been disobeying (Homan et al., 2019).

What did you observe?

The patient wanted to participate in her care and was keen to complete tasks asked of her. She was cooperative during the assessment by allowing the nurse to assess her IV, lay quietly while her respiratory, cardiovascular, and abdomen where assessed. She also identified her pain level and accepted sips of fluids from the nurse.

Cognitive Development:

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

This child is in the preoperational stage: substage intuitive thought.

What behaviors would you expect?

This patient should be exhibiting social awareness and including the perspectives of others in her decisions. She also should understand time and the sequence of events, concentration, demonstrate animism, and magical thinking. It would not be abnormal for her to have an imaginary friend (Homan et al., 2019).

What did you observe?

The child was socially aware and answered questions appropriately, she was concentrated on her pain and seemed to understand the sequence of events during the assessment.

Vocalization/Vocabulary:

Development expected for child's age and any concerns?

Typically for children of this patient's age has knowledge of over 2100 words, using these words in simple 4 to 5-word sentences. She should use language as her primary line of communication. This patient meets both of these expected developmental findings by verbally answering questions in simple 4 to 5-word sentences (Homan et al., 2019).

Any concerns regarding growth and development?

According to Homan et al. (2019), the average 5-year-old should weigh around 18.5kg. This patient weighs only 16kg which is underweight which is a slight concern. There are no other alarming signs related to her growth and development.

Reference:

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Homan, H., Williams, D, Sommer, S, Johnson, J., Wheless, L., Wilford, K., and McMichael, M. (2019). *ATI: RN nursing care of children* (11th Ed.). Assessment Technologies Institute, LLC.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Acute pain related to tissue hypoxia from vaso-occlusion as evidenced by the client rating her pain as a 3/5 on the FACES scale (Swearingen, 2016)..	This diagnosis was selected because the child had severe pain which was causing an increased heart rate and respirations.	**1.**Administer morphine 2mg IV as prescribed. **2.**Gently apply warmth to the painful area to help vasodilate.	The patient received the morphine 2mg IV as prescribed and when her pain was re-assessed with the FACES scale it was a 0/5. The warmth was comforting to the child and also helped to reduce her pain.
2. Risk for	This diagnosis	1. Continuously	The patient responded

decreased perfusion to multiple organs in the body related to vaso-occlusion and anemia as evidenced by patient's warm right leg and increased Hgb and Hct levels (Swearingen, 2016).	was chosen because she has decreased levels of Hgb and Hct reducing her O2 carrying capacity which can lead to decreased perfusion and if not corrected necrosis.	monitor pulse oximetry. 2. Administer O2 at 2L/min as prescribed and assess O2.	well to the oxygen treatment her O2 saturation remained above 95% and there does not appear to be any lasting effects of hypoxia.
3. Deficient knowledge related to pain crisis and vaso-occlusive crisis management and prevention as evidenced by the severe pain, radiating warmth from skin on right leg, and hypovolemia (Swearingen, 2016).	This diagnosis was selected because the patient was brought into the ED for severe pain beginning two days ago and knowing the manifestations and interventions may help prevent the need for the emergency care.	1. Educate patient and family on signs and symptoms of potential pain crisis and treatment. 2 Encourage family to take the patient for regular follow-ups with her sickle cell specialist.	The patient and family were able to explain the signs and symptoms of a pain crisis and what interventions they can take to manage the crisis. They also made a follow-up appointment with her physician.
4. Deficient knowledge related to newly prescribed hospital medications as evidenced by patient being administered morphine sulfate (Swearingen, 2016).	This was selected because when new medications are administered it is important to explain why they are needed, what to expect, and signs and symptoms of adverse reactions.	1. Educate patient and mother on why the stronger medication (morphine sulfate) is being given. 2. Educate family how to assess the child for respiratory, cardiac, and O2 changes.	The patient and her mother verbalized their understanding on why the morphine was given. The family was able to verbalize and demonstrate how to assess the child for changes to her respiratory, cardiac, and O2 status.

Other References (APA):

Swearingen, P. L. (2016). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health* (4th ed.). Elsevier.

Concept Map (20 Points):

N433 Care Plan

Subjective Data

The client says she is in severe pain and initially rates it at a 5/5 using the FACES scale. The pain is in her right lower leg and began two days ago. She states that moving her leg makes the pain worse and has not had any relief even after taking acetaminophen and ibuprofen. After receiving medication in the ED she rates her pain as a 3/5 on the FACES scale.

Nursing Diagnosis/Outcomes

1. Acute pain related to tissue hypoxia from vaso-occlusion as evidenced by the client rating her pain as a 3/5 on the FACES scale
- The patient received the morphine 2mg IV as prescribed and when her pain was re-assessed with the FACES scale it was a 0/5. The warmth was comforting to the child and also helped to reduce her pain.

2.Risk for decreased perfusion to multiple organs in the body related to vaso-occlusion and anemia as evidenced by patient's warm right leg and increased Hgb and Hct levels.
- The patient responded well to the oxygen treatment her O2 saturation remained above 95% and there does not appear to be any lasting effects of hypoxia.

3. Deficient knowledge related to pain crisis and vaso-occlusive crisis management and prevention as evidenced by the severe pain, radiating warmth from skin on right leg, and hypovolemia
- The patient and family were able to explain the signs and symptoms of a pain crisis and what interventions they can take to manage the crisis. They also made a follow-up appointment with her physician.

4. Deficient knowledge related to newly prescribed hospital medications as evidenced by patient being administered morphine sulfate
- The patient and her mother verbalized their understanding on why the morphine was given. The family was able to verbalize and demonstrate how to assess the child for changes to her respiratory, cardiac, and O2 status.

Objective Data

The patient was in sinus tachycardia with a pulse of 130bpm and a low grade fever of 37.2. Her CBC and CMP results showed a decreased level of Hgb 9.8, Hct 29%, and creatinine of 0.4. The patient appeared pale with all extremities cool to touch excluding the right lower leg which was warm to touch.

Patient Information

Patient is a 5-year-old African American female diagnosed at 6 months old with Sickle Cell disease. She has been admitted for sickle cell crisis. She has two prior hospitalizations, at four years old for a vaso-occlusive episode and at three years old for a fever. The patient's pain is typically controlled with oral ibuprofen and acetaminophen

Nursing Interventions

1.Administer morphine 2mg IV as prescribed.

2.Gently apply warmth to the painful area to help vasodilate.
1.Continuously monitor pulse oximetry.

2. Administer O2 at 2L/min as prescribed and assess O2.
1. Educate patient and family on signs and symptoms of potential pain crisis and treatment.

2 Encourage family to take the patient for regular follow-ups with her sickle cell specialist.
1.Educate patient and mother on why the stronger medication (morphine sulfate) is being given.

2. Educate family how to assess the child for respiratory, cardiac, and O2 changes.