N431 Care Plan 2

Lakeview College of Nursing

Shayla Mitchell

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
3-8-2020	M.K.	27	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
Caucasian	Elementary School Teacher	Married	Sulfa drug – Rash and itchy/watery eyes
Code Status	**Height**	**Weight**	
Full Code	5 feet 3inches	80 kg	

Medical History (5 Points)

Past Medical History: Pregnancy-Induced Hypertension, Rheumatoid Arthritis, and Anemia

Past Surgical History: Cesarean Section and Lithotripsy

Family History: Diabetes (Mother and Brother), Myocardial Infarction (Father)

Social History (tobacco/alcohol/drugs): Tobacco – The patient denies use

Alcohol – Current user. 1-2 drinks of beer per month

Drugs - The patient denies use

Assistive Devices: No assistive device use

Living Situation: Home with husband and daughter

Education Level: Bachelor's Degree in Elementary Education

Admission Assessment

Chief Complaint (2 points): Generalized "not feeling well."

History of present Illness (10 points): The patient is a 27-year-old female with a past medical history of pregnancy-induced hypertension, rheumatoid arthritis, and anemia. The patient presented to the hospital on March 8, 2020, with complaints of generalized "not feeling well." The patient revealed that she is a runner and is currently training for a marathon. The patient reported that she has run over 50 miles in the past three days because she is trying to break her record. Based on the information provided by the patient, I believe the pain started on the

morning of March 8th. The patient did not provide any characteristics of "not feeling well." She did rate her pain as 6 out of 10, which Tylenol was administered for relief. The patient revealed that there are not any aggravating factors and no alleviating factors. She will be admitted for further observation and treatment.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Rhabdomyolysis

Secondary Diagnosis (if applicable):

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

Rhabdomyolysis is the breakdown of skeletal muscle tissue. The breakdown of muscle causes the release of myoglobin in the bloodstream. Myoglobin is the protein that is responsible for storing oxygen in your muscles. Having an elevation of myoglobin in your blood can lead to kidney damage. This means that the kidneys cannot remove waste and concentrated urine. Significant causes of rhabdomyolysis include trauma, ischemia, drugs, toxins, metabolic disorders, and infections. This in case the patient ran 50 miles in three days leading to the injury of the musculoskeletal tissue. The hallmark of the syndrome is an increase in intracellular free ionized calcium due to either cellular energy depletion or direct plasma membrane rupture. Clinically, patients with rhabdomyolysis will present with severe muscular pain, weakness, and myoglobinuria (Cirino, 2019). The initial symptoms of rhabdomyolysis can be subtle. The symptoms are not specific and may mimic other conditions. The more subtle signs include low urine output, fatigue, soreness, nausea, and vomiting. The patient presented to the emergency room complaining of "generalized not feeling well."

There are a series of labs, and test were done to confirm the diagnosis of rhabdomyolysis. Creatinine kinase (CK) is an enzyme found in skeletal muscles, the brain, and the heart. Creatinine kinase catalyzes the conversion of creatine and uses adenosine triphosphate to create phosphocreatine and adenosine diphosphate. Increased amounts of creatinine kinase are released in the blood when muscle damage has occurred. The patient's CK is exceptionally elevated, with a value of 3,568 units per liter. Potassium may leak from injured bones and muscles and cause increased levels. The patient's potassium level is elevated, with a value of 5.5 mEq/L. Hyperkalemia can lead to an irregular heartbeat, cardiac arrest, or kidney damage. The patient is not showing any signs of the above at the moment.

Early diagnosis and treatment of rhabdomyolysis are key to a successful outcome. Therapy with IV fluids can help maintain urine production and prevent kidney disease. The patient is receiving normal saline, which is an isotonic solution to initiate volume repletion. Treatment also focuses on managing electrolyte imbalances such as potassium, calcium, and phosphate to protect the heart and other organs ("Rhabdomyolysis: Symptoms, Causes, and Treatments," 2019). The patient has hyponatremia and hyperkalemia due to her condition. She is receiving sodium chloride tablets to treat hyponatremia and kayexalate to treat hyperkalemia.

Concerning vital signs, it is critical to focus on heart rate and rhythm mainly. An electrolyte imbalance can affect the heart's electrical impulses and contribute to arrhythmia development. An electrocardiogram (EKG) may be ordered to monitor cardiac changes. The patient's EKG shows normal sinus rhythm and no noted abnormalities. The patient also received a chest x-ray to rule out any other complications secondary to rhabdomyolysis. The results were negative for any acute abnormalities.

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Pathophysiology References (2) (APA):

Cirino, C. (2019, May 20). What Is Rhabdomyolysis? Retrieved from https://www.healthline.com/health/rhabdomyolysis#treatments

Rhabdomyolysis: Symptoms, Causes, and Treatments. (2019, March 13). Retrieved from https://www.webmd.com/a-to-z-guides/rhabdomyolysis-symptoms-causes-treatments#2

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	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.5-5			
Hgb	11.3-15.2		8.8 Low	The patient's hemoglobin is low due to anemia (Kee, 2018).
Hct	33.2-45.3			
Platelets	149-393			
WBC	4-11.7		7.4	
Neutrophils	2.4-8.4			
Lymphocytes	11.8-45.9			
Monocytes	4.4-12			
Eosinophils	0-6.3			
Bands	0.1.0			

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

Lab	Normal Range	Admission Value	Today' s Value	Reason For Abnormal
Na-	135-145		123 Low	The patient's sodium level could be low due to inadequate sodium (salt) intake (Kee, 2018).
K+	3.5-5.1		5.5	The patient's potassium is elevated

			High	due to potassium leaking from injured bones and muscles during rhabdomyolysis (Kee, 2018).
Cl-	98-107			
CO2	21-31			
Glucose	74-109		86	
BUN	7-25		10	
Creatinine	0.5-0.9		1.67 High	The patient's creatinine could be elevated due to a diet high in creatinine. This includes eating a lot of beef, poultry, and fish. Since the patient is training for a marathon, she is most likely eating a lot of the listed foods. Or the patient's creatinine is elevated because muscle damage has occurred (Kee, 2018).
Albumin	3.5-5.2			
Calcium	8.6-10.3			
Mag	1.5-2.5			
Phosphate	35-105			
Bilirubin	0.3-1.0			
Alk Phos	20-140			
AST	0-32			
ALT	0-33			
Amylase	23-85			
Lipase	0-160			

Lactic Acid	0.5-1.0			
Troponin	0-.0.4			
CK-MB	3-5%			
Total CK	22-198		3,568 High	The patient's creatine kinase is elevated due to vigorous exercise (Kee, 2018).

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.86-1.14			
PT	11.9-15.0			
PTT	22.6-35.3			
D-Dimer	<0.50			
BNP	<100			
HDL	23-92			
LDL	<100			
Cholesterol	<130			
Triglycerides	0-149			
Hgb A1c	< = 6.4			
TSH	0.45-5.33			

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow/			

	Clear			
pH	4.5-8.0			
Specific Gravity	1.010-1.030			
Glucose	0 – 0.8			
Protein	0-20mg/dL			
Ketones	Negative			
WBC	Negative			
RBC	Negative			
Leukoesterase	Negative			

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35-7.45			
PaO2	80-100			
PaCO2	35-45			
HCO3	22-28			
SaO2	95-100			

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative			
Blood Culture	Negative			
Sputum Culture	Negative			
Stool Culture	Negative			

Lab Correlations Reference (APA):

Kee, J. L. F. (2018). *Laboratory and Diagnostic Tests with Nursing Implications*. Pearson.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Chest X-Ray and Electrocardiogram

Diagnostic Test Correlation (5 points): A chest x-ray is a diagnostic procedure that visualizes the heart, lungs, blood vessels, airway, spine, and bones of the chest. A chest x-ray was ordered for my patient to rule out any other abnormalities or causes of injury. The results revealed no acute abnormalities. An electrocardiogram is a test that evaluates the electrical activity of the heart. My patient has hyponatremia and hyperkalemia due to rhabdomyolysis, which can cause arrhythmias and abnormal changes on the EKG. Her results revealed a normal sinus rhythm.

Diagnostic Test Reference (APA):

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

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	Claritin/ Loratadine	Prenatal Vitamin	Azasan/ Azathioprine	Plaquenil/ Hydroxychloroquine	Folvite/Folic acid
Dose	10mg	2 chewable gummies	50mg	200mg	1mg
Frequency	Daily	Daily	Daily	Daily	Daily

Route	PO	PO	PO	PO	PO
Classification	Antihistamine, 2nd generation	Multivitamin	Immunosuppressant	Antiprotozoal, Antirheumatic	Vitamin, Water-Soluble
Mechanism of Action	A long-acting tricyclic antihistamine with selective peripheral histamine H1-receptor antagonistic activity.	It contains fat and water-soluble vitamins necessary for normal growth and development. Many acts as coenzymes or catalysts in numerous metabolic processes.	Inhibits DNA, RNA, and protein synthesis and antagonizes purine synthesis.	May mildly suppress the immune system, inhibiting the production of rheumatoid factor and acute phase reactants.	Necessary for the formation of coenzymes in metabolic systems (purine and pyrimidine synthesis required for maintenance in erythropoiesis) ; stimulates platelet production in folate deficiency anemia.
Reason Client Taking	The patient is taking this medication for allergy symptoms and hives.	The patient is taking this medication for her daily vitamin and mineral intake.	The patient is taking this medication for rheumatoid arthritis.	The patient is taking this medication to treat her rheumatoid arthritis.	The patient is taking folic acid to treat anemia.
Contraindications (2)	Hypersensitivity Caution in hepatic and renal impairment	Hypersensitivity to preservatives, colorants, or additives Use cautiously in anemia of undetermined cause	Hypersensitivity to drug its components Use cautiously in patients with renal or hepatic dysfunction	Hypersensitivity Caution with antacids use because of a possible reduction in absorption	Hypersensitivity Caution in undiagnosed anemia
Side Effects/Adverse Reactions (2)	Headache Somnolence	Urine discoloration Allergic reactions	Hepatotoxicity Abdominal pain	Confusion Hypotension	Bronchospasms Erythema
Nursing Considerations (2)	Assess allergy symptoms (rhinitis, conjunctivitis, hives) before and during therapy. Assess lung sounds and character of bronchial secretions.	Assess patient for signs of nutritional deficiency before and during therapy. Do not give this medication to the patient with milk or other dairy products.	Monitor the patient for bacterial, viral, fungal, protozoal, and opportunistic infections. Watch for early signs of hepatotoxicity such as clay-colored stools or dark urine.	Monitor patient's vision when giving hydroxychloroquine, because irreversible retinal damage may occur in some patients during high-dose or long-term therapy. Monitor the patient on long-term therapy for muscle weakness and abnormal ankle and knee reflexes.	Monitor the patient for hypersensitivity reactions, especially if the drug is previously taken. Keep supportive equipment and emergency drugs readily available in case of severe allergic response.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	May cause false-negative results in allergy skin testing.	Monitor for nutritional deficiencies.	Monitor CBC and platelet counts weekly for one month, twice monthly for two months, then monthly unless frequent	Obtain periodic blood cell counts, as ordered, during prolonged therapy to detect adverse hematologic effects.	Use the Schilling test and serum vitamin B12 levels to rule out pernicious anemia. Therapy may

			monitoring is clinically indicated.		mask signs of pernicious anemia.
Client Teaching needs (2)	Caution patient to avoid driving or other activities requiring alertness until response to medication is known. Advise the patient to avoid taking alcohol or other CNS depressants concurrently with this drug.	Encourage the patient to comply with recommendations of health care professionals. Teach the client to avoid the regular use of salt substitutes in the diet if prenatal contains potassium.	Warn patient to report even mild infections such as a cold, fever, sore throat, or malaise. Warn the patient that some hair thinning is possible.	Instruct the patient to take the drug with meals or milk to minimize stomach upset. Tell the patient receiving prolonged therapy about the need for periodic blood tests to detect an adverse effect.	Teach the patient to report rash, difficulty breathing, pain, or discomfort at the injection site. Teach the patient that when the cause of megaloblastic anemia is treated, there may be no need to continue taking folic acid.

Hospital Medications (5 required)

Brand/Generic	Normal Saline/ 0.9% Sodium Chloride	Sodium Chloride/Salt	Kayexalate/ Sodium Polystyrene	Tylenol/ Acetaminophen	Colace/ Docusate
Dose	250mL/hr	1g	30g	650mg	100mg
Frequency	Saline locked	Daily	Once	Q6hr, PRN	BID, PRN
Route	IV	PO	PO	PO	PO
Classification	Isotonic crystalloid solution	Hypertonic solution	Anti-hyperkalemic	Non-opioid analgesic, antipyretic	Laxative – stool softener
Mechanism of Action	Normal saline is a combination of sodium and chloride. Sodium is involved in many transmission of nerve impulses and kidney functions. Chloride ions are responsible for maintaining	The major cation of extracellular fluid and functions principally in the control of water distribution, fluid and electrolyte balance, and osmotic pressure of body fluids.	Releases sodium ions in exchange for other cations in the intestines. Resin enters large intestine and releases sodium ions in exchange for hydrogen ions.	It inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system.	Surfactant laxative reduces the tension of the oil-water interface of the stool; enhances the incorporation of water and fat into the stool, causing stool to soften.

	the acid-base balance.				
Reason Client Taking	The client is receiving normal saline to replenish lost fluids.	The patient to taking to treat hyponatremia	The patient is taking to treat hyperkalemia	The patient is taking as needed for pain relief	The patient is taking this medication as needed for constipation
Contraindications (2)	Hypernatremia Congestive heart failure	High blood pressure Kidney disease	Hypersensitivity Hypokalemia	Hypersensitivity to acetaminophen or its components Severe hepatic impairment	Intestinal obstruction Symptoms of appendicitis
Side Effects/Adverse Reactions (2)	Hypernatremia Fluid retention	Stomach pain Swelling in hands and feet	Peripheral edema Abdominal cramping	Angioedema Disorientation	Abdominal cramping Diarrhea
Nursing Considerations (2)	Assess fluid balance (intake and output, daily weight, edema, lung, sounds) throughout therapy. Assess patient for symptoms for hyponatremia (headache, tachycardia, weight gain, and hypertension).	Assess fluid balance (intake and output, daily weight, edema, lung, sounds) throughout therapy. Assess patient for symptoms for hyponatremia (headache, tachycardia, weight gain, and hypertension).	Be aware that because the drug doesn't take effect for several hours, it's inappropriate for treating acute, life-threatening hyperkalemia. Assess patient for hypokalemia or hypocalcemia.	Monitor renal function in the patient on long-term therapy. Use cautiously in patients with hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, or severe hypovolemia.	Assess for laxative abuse syndrome, especially in women with anorexia nervosa, depression, or personality disorder. Expect long-term or excessive use of docusate to cause dependence on laxatives for bowel movements, electrolyte imbalances, osteomalacia, steatorrhea, and vitamin and mineral deficiencies.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Monitor serum electrolyte levels for signs of hypernatremia and fluid volume overload. Along with the possible cause of fluid volume overload, monitor the patient's intake and output for proper kidney function.	Monitor serum sodium levels before and during the use of sodium chloride for signs of hypernatremia.	Monitor serum potassium levels for hypokalemia.	Before and during long-term therapy, including parenteral treatment, liver function test results, including AST, ALT, bilirubin, and creatinine levels, as ordered, must be monitored because acetaminophen may cause hepatoxicity.	Monitor electrolyte levels for imbalances.
Client Teaching needs (2)	Teach the patient to report signs of hypernatremia such as dry	Instruct the patient to stop taking sodium chloride and notify the	Instruct the patient not to mix oral form of medication with foods and liquids high in	Tell the patient that tablets may be crushed or swallowed whole. Teach the patient to	Advise the patient to take docusate with a full glass of water or milk.

	mouth, irritability, or fast heartbeat. Explain the purpose of the IV infusion to the patient.	provider if she develops nausea and vomiting or swelling in the hands and feet. Take sodium chloride with a full glass of water (8oz).	potassium content such as bananas or orange juice. Advise the patient to notify the provider immediately about abdominal cramps, nausea, or vomiting.	recognize signs of hepatotoxicity, such as bleeding or easy bruising.	Encourage the patient to increase fiber intake, exercise regularly, and drink 6 to 8 glasses of water daily to help prevent constipation.

Medications Reference (APA):

Jones & Bartlett Learning. (2019). 2019 *Nurses drug handbook.*

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient is A/O x4. She is oriented to person, place, time, and president. The patient appears to not be in any distress at this time. The patient is cooperative and looks stated age. At 0700, the patient received Tylenol for her pain rating 6/10. After symptoms were treated with medication, the patient-rated her pain as 2/10.
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:**	Skin is pink, warm, and dry and appropriate for ethnicity. The patient's temperature ranged between 36.5 and 36.8˚C during shift. Skin turgor was assessed on arms bilaterally and were both less than 3 seconds. No rashes, bruises, or wounds are present. The Braden score was not

Bruises: **Wounds**. **Braden Score:** Not given. **Drains present: Y☐ N ☒** **Type:**	given; however, because the patient is 27-years-old and a runner, I would say she is not a skin risk. No drains are present.
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	The head is normocephalic, with no visible deformities or abnormalities. Ears are normal and symmetric to face. PERLA is present with no visual disturbances. The nose is normal and symmetric to face. Teeth are normal. Lips, mucosa, and tongue all normal. .
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:**	Regular rate and rhythm with S1 and S2 present. No murmurs gallops or rubs present upon auscultation at aortic, pulmonary, tricuspid, and mitral valve. Peripheral pedal pulses are 2+ bilaterally. Radial pulses are 2+ bilaterally. Capillary refill is less than 3 seconds on both hands. No chest tenderness or deformities. No neck vein distention or edema.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	The patient did not have accessory muscle use. Right and left lungs are clear upon auscultation anterior and posterior—no adventitious breath sounds.
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **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:**	The patient is on a regular diet at home and inpatient. Height is 5 feet, 3 inches, and weight is 80 kg. Bowel sounds are present and active in all four quadrants. The abdomen is soft and non-tender upon palpitation in all four quadrants. No masses, distention, incisions, scars, drains, or wounds. The patient has no risk for aspiration. The patient's last bowel movement is today.

GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Urine is clear and yellow. The patient is voiding ad-lib. The patient urinated twice during shift. Genitals look normal with no abnormalities.
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	Neurovascular status is normal. The patient has a bilateral, equal range of motion in all four extremities. The patient is not a fall risk. The patient is independent and up ad-lib. The fall score is not known; however, the patient is a 27-year-old marathon runner, so I would say she is not a fall risk: no joint abnormalities, cyanosis, or edema.
NEUROLOGICAL (2 points): **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	The patient is A/O x4. The patient can move all extremities equally and bilaterally. No sensory deficits. No hearing-aid or glasses. No altered mental status.
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	The patient lives at home with her child and husband. She enjoys running. She does not have any developmental delays. I did not ask the patient about her religious practices.

Vital Signs, two sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	76 bpm	126/68	16/min	36.5˚C	98%

		mmHg			
1100	68 bpm	118/62 mmHg	16/min	36.8˚C	97%

Vital Sign Trends:

The recommended blood pressure is less than 120/80. The patient's blood pressure is slightly high, but that could be due to her increased pain level. The patient received a Tylenol for her pain, and her pain level decreased. Her other vitals are all within normal limits.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	Numeric pain scale	Generalized	6/10	Generalized weakness – muscle pain	Tylenol was administered
1100	Numeric pain scale	Generalized	2/10	Generalized weakness	No intervention at this time

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	IV Saline Locked 20 gauge needle Left Antecubital 3-8-2020 Patent No phlebitis, infiltration, erythema, or drainage present Transparent dressing – Dry, intact, and flushes easily

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
610 mL	1750 mL

NS at 250 mL/hr Tea PO 240 mL with breakfast Apple juice 120 ml with breakfast	Urine total voided within 4 hours Stool x2

Nursing Care

Summary of Care (2 points)

Overview of care: Today, I took 0700 and 1100 vital signs on the patient. I also administered the patients scheduled morning medications and a PRN Tylenol for her pain level. The patient has hyponatremia and hyperkalemia, so I monitored for any changes. The patient is most likely on telemetry to monitor for any EKG changes, and I would have monitored that.

Procedures/testing done: A chest x-ray was performed to rule out any other abnormalities due to the patient's rhabdomyolysis. The results were negative, and the patient also had an EKG performed to monitor for any developing arrhythmias. The results were a normal sinus rhythm.

Complaints/Issues: The patient has a couple of electrolyte imbalances that are being monitored closely.

Vital signs (stable/unstable): The recommended blood pressure is less than 120/80. The patient's blood pressure is slightly high, but that could be due to her increased pain level. The patient received a Tylenol for her pain, and her pain level decreased. Her other vitals are all within normal limits.

Tolerating diet, activity, etc.: The patient is on a regular diet and did eat breakfast this morning. She is tolerating meals well.

Physician notifications: Notify the physician of any abnormal changes on EKG or any further electrolyte imbalances.

Future plans for patient: The patient will follow up with PCP in 1 week following discharge.

Discharge Planning (2 points)

Discharge location: Home with family

Home health needs (if applicable): n/a

Equipment needs (if applicable): n/a

Follow up plan: The patient will follow up with PCP in 1 week following discharge.

Education needs: n/a

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 muscle weakness as evidence by patient self-report of 6/10 intensity using a numeric pain scale.	The patient has acute pain related to her rhabdomyolysis and muscle breakdown. The patient also self-reported her intensity.	**1.** Assess for nonverbal signs of pain such as tense posture, increased heart rate, or diaphoresis. **2.** Provide medications as prescribed for pain relief and evaluate effectiveness.	The patient was very cooperative in reporting signs of pain. In the beginning, the patient reported pain as a 6 out of 10, and after medication, she reported a decrease in pain level.
2. Activity intolerance related to elevated total CK levels as evidence by skeletal muscle weakness	The patient ran over 50 miles in 3 days, which caused some skeletal muscle breakdown leading to muscle weakness.	**1.** Assess the patient's nutritional status as proper nutrition is adequate for energy levels. **2.** Use portable	The patient understands that running 50 miles in three days lead to her increased creatinine kinase levels. At this time, the patient is being treated with IV fluids to restore lost fluids

		pulse oximetry to assess for oxygen desaturation during activity.	because of vigorous sweating and exercise. The patient is tolerating a regular diet, and her oxygen saturation levels have maintained normal levels.
3. Risk for decreased cardiac output related to hyperkalemia as evidence by the patient's diagnosis of rhabdomyolysis .	The patient has increased potassium levels, which could lead to cardiovascular changes, especially decreased output.	**1.**Monitor serum potassium levels. **2** Monitor ECK changes carefully while the patient is receiving treatment.	The patient is very cooperative in nursing care. An EKG was performed to monitor for any cardiac changes. At this time, the patient has a normal sinus rhythm, and we will continue to monitor.
4. Risk for deficient fluid volume related to hyponatremia as evidence by excessive exercise and sweating.	The patient has decreased sodium levels, which could lead to a deficit in her fluid status.	**1.** Measure intake and output accurately. **2.** Weigh the patient daily.	The patient is very cooperative in receiving fluids and taking sodium chloride tablets to increase her sodium levels. At this time, we will continue to monitor the patient's labs. The patient has a positive intake and output level.

Other References (APA):

Gulanick, M., & Myers, J. L. (2017). *Nursing Care Plans: Diagnoses, Interventions, & Outcomes*. Elsevier.

Concept Map (20 Points):

N431 Care Plan

Subjective Data

The patient reports generalized "not feeling well."
Patient reports pain as 6/10 at 0700 and 2/10 at 1100

Nursing Diagnosis/Outcomes

Acute pain related to muscle weakness as evidence by patient self-report of 6/10 intensity using a numeric pain scale.
By discharge, the patient reports satisfactory pain control at a decreased intensity using the numeric pain scale.

Activity intolerance related to elevated total CK levels as evidence by skeletal muscle weakness.
By discharge, the patient will exhibit tolerance during activity by a normal fluctuation of vital signs.

Risk for decreased cardiac output related to hyperkalemia as evidence by the patient's diagnosis of rhabdomyolysis.
By discharge, the patient exhibits adequate cardiac output as evidence by blood pressure and pulse rate and rhythm within normal parameters for the patient.

Risk for deficient fluid volume related to hyponatremia as evidence by excessive exercise and sweating.
By discharge, the patient is normovolemic as evidence by blood pressure, heart rate, and urine output, all within normal limits.

Objective Data

0700 vital signs:
BP: 126/68 mmHg
HR: 76 bpm
R: 16/minT: 36.5˚C
O2: 98%
1100 vital signs:
BP: 118/62 mmHg
HR: 68 bpm
R: 16/min
T: 36.8˚ C
02: 97%
Chest X-Ray = No acute abnormalities
Electrocardiogram – Normal Sinus Rhythm
Abnormal Lab Values: K+, Na+, Creatinine, Total CK, Hgb

Patient Information

Patient initials: MK
27-year-old white female
Admitted: 3-8-20
Full code
Allergies: Sulfa Drugs – itching and rash
Height: 63in
Weight: 80kg

Nursing Interventions

Assess for nonverbal signs of pain such as tense posture, increased heart rate, or diaphoresis.
Provide medications as prescribed for pain relief and evaluate effectiveness.
Assess the patient's nutritional status as proper nutrition is adequate for energy levels.
Use portable pulse oximetry to assess for oxygen desaturation during activity.
Monitor serum potassium levels.
Monitor ECK changes carefully while the patient is receiving treatment.
Measure intake and output accurately.
Weigh the patient daily.

N431 Care Plan

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