N441 Care Plan

Lakeview College of Nursing

Tasnim Mustafiz

Demographics (3 points)

Date of Admission 09/12/2023	Client Initials JM	Age 32	Gender Female
Race/Ethnicity White Caucasian	Occupation PT works at the prison.	Marital Status Married	Allergies COVID-19 Vaccine
Code Status FULL	Height 5'2	Weight 81.6 kg	

Medical History (5 Points)

Past Medical History: Type 2 diabetes and anxiety.

Past Surgical History: Cholecystectomy and laparoscopic.

Family History: PT's mother has type 2 diabetes, her grandmother has lung cancer, and her brother has autism.

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): Pt denies drinking. PT says she used to smoke cigarettes about 2 packs a week and stopped it in 2014.

Assistive Devices: N/A.

Living Situation: PT lives with her husband and three children.

Education Level: High school diploma.

Admission Assessment

Chief Complaint (2 points): Confusion, SOB, nausea, vomiting, and periumbilical area discomfort.

History of Present Illness – OLD CARTS (10 points):

The patient is a 32-year-old female who presents to the ED via EMS complaining of confusion by the family that started 2-3 hours before arrival as an acute onset. Associated with nausea, vomiting, shortness of breath, LOC, and periumbilical area discomfort, which also started 2-3

hours before arrival as acute onset. The patient describes the discomfort in her periumbilical area as crampy and achy. The patient does not recall any aggravating factors or any relieving factors of symptoms. She ran out of insulin two weeks ago, and her blood sugar was high. The patient was also diagnosed with UTI on 09/09/2023. The patient's WBC was 48.3, which led to infection causing DKA. The patient took nothing before coming to the ED to relieve the symptoms. The patient's blood glucose was 834. On arrival, the patient is being treated to help relieve symptoms and to lower blood glucose levels. The severity of the patient's DKA falls within the moderate category, considering the patient's abnormal arterial pH and carbon dioxide levels.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): DKA**.**

Secondary Diagnosis (if applicable): UTI.

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

Diabetic ketoacidosis (DKA) is a condition that develops in persons with no insulin reserves (Capriotti, 2020). Depending on the concentration, insulin has several effects; at the very lowest concentrations, insulin inhibits lipolysis and thus switches off ketone production (Dhatariya, 2019). At higher concentrations, insulin stimulates glucose uptake into the cells, inhibits glycogenolysis, and stimulates glycogen synthesis (Dhatariya, 2019). If no insulin is present in the body or abnormal hormone levels such as cortisol, catecholamines, or glucagon are high, this can cause diabetic ketoacidosis (Dhatariya, 2019). The causes of DKA include infection, intercurrent illness, poor adherence to prescribed medication, and failure of technology, such as a pump malfunction (Dhatariya, 2019). On 9/09/2023, the patient came to the OSF emergency department and was diagnosed with UTI. The patient was sent home with antibiotics. On

09/12/2023, the patient returned to the emergency department, and her WBC was 48.3 due to a UTI, which led to DKA. Severe nausea, vomiting, and profound dehydration can occur in DKA (Capriotti, 2020). Patients may also present with weakness, abdominal pain, polyuria, polydipsia, and polyphagia (Capriotti, 2020). A fever may be present, as well as tachycardia or hypotension (Capriotti, 2020). This patient presented to the ED with nausea, vomiting, confusion, and periumbilical area discomfort.

Diagnostic tests for DKA include a blood glucose level greater than or equal to 250 mg/dL, arterial pH lower than 7.3, serum bicarbonate (CO2-) lower than 21 mEq/L, and ketonuria and ketonemia (Capriotti, 2020). This patient's diagnostic tests included a blood glucose reading of 834 mg/dL, a pH level of 6. 81, and ketones in her urine upon admission. DKA is a critical condition and requires immediate treatment (Capriotti, 2020). Treatment for DKA includes IV insulin, fluids, and electrolyte replacement (Dhatariya, 2019). IV insulin is administered until the blood glucose is lower than 250 mg/dL (Capriotti, 2020). Overhydration must be avoided to prevent complications such as cerebral edema, and the blood glucose level should be decreased slowly during treatment (Capriotti, 2020). Upon admission, this patient received IV insulin, which lowered her blood glucose to 198 mg/dL. The patient is also receiving 0.9% sodium phosphate and dextrose 5%.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives.* F.A. Davis Company.

Dhatariya, K. K. (2019). Defining and characterizing diabetic ketoacidosis in adults. *Diabetes*

research and clinical practice, *155*(4), 107797.

https://doi.org/10.1016/j.diabres.2019.107797

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 – 6	4.2	N/A	N/A
Hgb	12 – 16	12.6	N/A	N/A
Hct	35 – 37	35.2	N/A	N/A
Platelets	150,000 – 400,000	254	N/A	N/A
WBC	4,500 – 11,000	48.3	18.90	PT has high WBC related to UTI (Pagana et al., 2018).
Neutrophils	45 – 75	N/A	N/A	N/A
Lymphocytes	20 – 40	N/A	N/A	N/A
Monocytes	4 – 6	N/A	N/A	N/A
Eosinophils	Less than 7%	N/A	N/A	N/A
Bands	50 – 65%	N/A	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 Value	Today's Value	Reason For Abnormal
Na-	135 – 145	123	133	PT has low sodium due to electrolyte imbalance related to DKA (Pagana et al., 2018).
K+	3.5 – 5	6.7	3.5	PT has high potassium to compensate with low sodium due to electrolyte imbalance related to

				DKA (Pagana et al., 2018).
Cl-	**98 – 107**	**94**	**113**	Low chloride levels are a compensatory response to high anion gap metabolic acidosis in DKA (Pagana et al., 2018).
CO2	**21 – 31**	**<5**	**12**	Low levels of CO2 are related to the patient's DKA. Acidosis causes a decrease in carbon dioxide levels (Pagana et al., 2019).
Glucose	**70 – 100**	**834**	**198**	PT has high glucose due to type 2 diabetes (Pagana et al., 2018).
BUN	**8 – 25**	**65**	**74**	PT has high BUN related to dehydration & AKI (Pagana et al., 2018).
Creatinine	**0.6 – 1.3**	**2.69**	**2.31**	PT has high BUN related to AKI (Pagana et al., 2018).
Albumin	**3.5 – 5.2**	**4.1**	**3.6**	**N/A**
Calcium	**8.6 – 10.2**	**8.8**	**8.6**	**N/A**
Mag	**1.6 – 2.6**	**2.1**	**1.8**	**N/A**
Phosphate	**2.5 – 4.5**	**3.0**	**1.3**	PT has low phosphate related to acidic effects of ketones and the body is trying to balance the electrolyte (Pagan et al., 2918).
Bilirubin	**0.1 – 1.4**	**N/A**	**N/A**	**N/A**
Alk Phos	**34 – 104**	**98**	**97**	**N/A**
AST	**10 – 30**	**24**	**15**	**N/A**
ALT	**10 – 40**	**22**	**38**	**N/A**
Amylase	**40 – 140 U/L**	**N/A**	**N/A**	**N/A**
Lipase	**11 – 82 U/L**	**N/A**	**N/A**	**N/A**
Lactic Acid	**0.5 – 2.0 mmoL/L**	**1.5**	**N/A**	**N/A**
Troponin	**0.00 – 0.03**	**N/A**	**N/A**	**N/A**

CK-MB	**5 – 25 mmol/L**	**N/A**	**N/A**	**N/A**
Total CK	**55 – 170 U/L**	**N/A**	**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	Value on Admission	Today's Value	Reason for Abnormal
INR	**0.8 – 1.1**	**1.0**	**N/A**	**N/A**
PT	**9.5 – 11.3**	**10.2**	**N/A**	**N/A**
PTT	**30 – 40 sec**	**35**	**N/A**	**N/A**
D-Dimer	**≤ 250**	**N/A**	**N/A**	**N/A**
BNP	**< 100**	**N/A**	**N/A**	**N/A**
HDL	**> 40**	**N/A**	**N/A**	**N/A**
LDL	**< 130**	**N/A**	**N/A**	**N/A**
Cholesterol	**< 200**	**N/A**	**N/A**	**N/A**
Triglycerides	**< 150**	**N/A**	**N/A**	**N/A**
Hgb A1c	**< 7**	**8.5**	**N/A**	High levels of A1c are due to the patient's high blood glucose levels from DKA (Pagana et al., 2018).
TSH	**0.5 – 5**	**N/A**	**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	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Negative**	**Yellow cloudy**	**N/A**	Patient has a UTI (Pagana et al., 2018).
pH	**Negative**	**N/A**	**N/A**	**N/A**

Specific Gravity	**1.005 – 1.030**	**1.019**	**N/A**	**N/A**
Glucose	**Negative**	**3+**	**N/A**	Hyperglycemia usually exceeds the renal threshold of glucose absorption, resulting in glucosuria (Pagana et al., 2018).
Protein	**Negative**	**N/A**	**N/A**	**N/A**
Ketones	**Negative**	**Small**	**N/A**	**N/A**
WBC	**Negative**	**0-5**	**N/A**	Patient has a UTI (Pagana et al., 2018).
RBC	**Negative**	**Negative**	**N/A**	**N/A**
Leukoesterase	**Negative**	**Negative**	**N/A**	**N/A**

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**	**6.81**	**N/A**	Low levels of pH are related to the patient's DKA. Acidosis causes a decrease in pH levels (Pagana et al., 2018).
PaO2	**35 – 45 mmHg**	**N/A**	**N/A**	**N/A**
PaCO2	**41 – 51 mmHg**	**N/A**	**N/A**	**N/A**
HCO3	**22 – 26**	**N/A**	**N/A**	**N/A**
SaO2	**95 – 99%**	**N/A**	**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	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	**Negative**	**100,000 CFU/ML**	**N/A**	Patient has a UTI (Pagana et al., 2018).
Blood Culture	**Negative**	**Negative**	**Negative**	**N/A**

Sputum Culture	**Negative**	**Negative**	**Negative**	**N/A**
Stool Culture	**Negative**	**N/A**	**N/A**	**N/A**

Lab Correlations Reference (1) (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2018). *Mosby's diagnostic and laboratory test reference (14th ed.).* Mosby.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Chest X-ray, and CT of the abdomen is pending.

Diagnostic Test Correlation (5 points):

Upon admission, the patient received a chest x-ray. Chest X-rays are done for DKA to rule out pulmonary infections, such as pneumonia. In the patient's x-ray, it was found that the heart size was normal. There is also no acute lung pathology. The costophrenic angles are clear. No mediastinal or osseous abnormality. No visual signs of infection observed from the chest x-ray.

Diagnostic Test Reference (1) (APA):

Capriotti, T., & Frizzell, J.P. (2020). 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	**Albuterol sulfate inhaler/ Proair HFA**	**Lorazepam/ Ativan**	**Insulin Aspart/ NovoLOG**	**Insulin glargine/ LANTUS 100 unit/mL injection 35**	**N/A**

				units	
Dose	2 puffs	0.5 mg		35 units	**N/A**
Frequency	Every 4 hours PRN	Once a day	3 times before meals.	Every evening	**N/A**
Route	Inhaled	PO	SQ	SQ	**N/A**
Classification	Pharmacologic class: Adrenergic Therapeutic class: Bronchodilator	Pharmacologic class: Benzodiazepine Therapeutic class: Anxiolytic	Pharmacologic class: Human insulin Therapeutic class: Antidiabetic	Pharmacologic class: Pancreatitis Therapeutic class: Antidiabetics	**N/A**
Mechanism of Action	Albuterol attaches to beta, receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert adenosine triphosphate (ATP) to cyclic adenosine monophosphate (cAMP). This reaction decreases intracellular calcium levels. It also increases intracellular levels of CAMP, as shown. Together,	May potentiate effects of gamma-aminobutyric acid (GABA) and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of CNS. GABA inhibits excitatory stimulation, which helps control emotional behavior. Limbic system contains a dense area of benzodiazepine receptors, which may explain drug's antianxiety effects (Jones	Lowers blood glucose Levels by stimulating peripheral glucose uptake by fat and skeletal muscle by inhibiting haptic glucose production (Jones & Bartlett, 2021).	Insulin and its analogs lower blood glucose levels by stimulating peripheral glucose uptake, especially by skeletal muscle and fat, and by inhibiting glucose production. Insulin inhibits lipolysis in the adipocyte, inhibits proteolysis, and enhances protein synthesis (Jones & Bartlett, 2021).	**N/A**

	these effects relax bronchial smooth-muscle cells and inhibit histamine release (Jones & Bartlett, 2021).	& Bartlett, 2021).			
Reason Client Taking	Relief of wheezing and cough.	To relieve anxiety.	To improve glycemic control in patients with diabetes mellitus.	Patient is taking to regulate blood glucose levels.	**N/A**
Contraindications (2)	Hypersensitivity to albuterol or its components, diabetes milieus	Acute angle-closure glaucoma, severe respiratory insufficiency.	Hypersensitivity o regular human insulin or any of its compounds, chronic lung disease.	Hypersensitivity to a particular type of insulin, preservatives, or other additives. Patients with hypoglycemia.	**N/A**
Side Effects/Adverse Reactions (2)	Angina, arrythmias, hypokalemia	Respiratory depression and seizures.	Hypoglycemic, weight gain	Hypokalemia, diaphoresis.	**N/A**
Nursing Considerations (2)	Use cautiously in patients with cardiac disorders. Be aware that drug tolerance may develop with prolonged use.	Use it cautiously in patients with hepatic or renal impairment. Monitor patient for adverse reactions, especially if hypoalbuminemia is present, which increases the risk of sedation.	Monitor patient's blood glucose level closely, and check potassium levels.	Check insulin type, dose, and expiration date with another nurse. Store unopened vials and cartridges in the refrigerator.	**N/A**

Key Nursing Assessment(s)/Lab (s) Prior to Administration	Monitor O2, ABG	Have emergency resuscitation equipment and oxygen at bedside prior to administration. Check vitals before administering.	Administer at the beginning of meals, check blood sugar.	Check the patient's blood glucose prior to administration . Check the patient's blood pressure, pulse, and respiration before giving insulin.	**N/ A**
Client Teaching needs (2)	To take as prescribe, rinse mouth after (Jones & Bartlett, 2021).s	Teach patient about signs and symptoms, instruct patient not to stop drug abruptly (Jones & Bartlett, 2021).	Teach patient how to check blood sugar, teach patient and family what to do if patient is hypoglycemic (Jones & Bartlett, 2021).	Recognize signs and symptoms of hyperglycemi a and hypoglycemia (Jones & Bartlett, 2021). Carry a simple sugar or glucose tablet in case of hypoglycemia (Jones & Bartlett, 2021).	**N/ A**

Hospital Medications (5 required)

Brand/Generic	**Enoxaparin / Lovenox**	**Melatonin/ Circadin**	**Ceftriaxon e/ Rocephin**	**Vancomyci n/**	**Ondansetron/ Zofran**
Dose	30 mg	6 mg	1 g	250 mL/hr	4 mg
Frequency	Once a day.	Nightly;	Every 24	Once	Every 6 Hr;

		PRN	Hr.		PRN
Route	SQ	PO	Intravenous	IV	PO
Classification	Pharmacologic class: Low-molecular-weight heparin Therapeutic class: Anticoagulant	Pharmacologic class: Receptor agonist Therapeutic class: Sedative/Hypnotic	Pharmacologic class: Third-generation cephalosporin Therapeutic class: Antibiotic	Pharmacologic class: Anti-infective miscellaneous Therapeutic class.: Tricyclic glycopeptide	Pharmacologic class.: Antiemetic Therapeutic class.: 5-HT receptor antagonist
Mechanism of Action	Potentiates the action of antithrombin IlI, a coagulation inhibitor. By binding with antithrombin III, enoxaparin rapidly binds with and inactivates clotting factors. Without thrombin, fibrinogen can't convert to fibrin and thrombus can't form (Jones & Bartlett, 2021).	Melatonin is a derivative of tryptophan. It binds to melatonin receptor type 1A, which then acts on adenylate cyclase and the inhibition of a cAMP signal transduction pathway. Melatonin not only inhibits adenylate cyclase, but it also activates phospholipase C. This potentiates the release of arachidonate	Interferes with bacterial cell wall synthesis by inhibiting cross-linking of peptidoglycan strands. Peptidoglycan makes the cell membrane rigid and protective. Without it, bacterial cells rupture and die (Jones & Bartlett, 2021).	Inhibits bacterial cell wall synthesis, and blocks glycopeptide (Jones & Bartlett, 2021).	Prevents nausea and vomiting by blocking serotonin (5-HT) peripherally, centrally, and in the small intestine (Jones & Bartlett, 2021).

		(Jones & Bartlett, 2021).			
Reason Client Taking	To prevent deep vein thrombosis.	Patient is taking it as a sleeping aid.	Patient is taking this to treat her UTI.	Patient is taking this related to UTI.	Patient is taking this sue to nausea related to DKA.
Contraindications (2)	Active major bleeding; thrombocytopenia	Hypersensitivity to melatonin or its components and history of angioedema with previous use.	Beta-lactam antibacterial, hypersensitivity to cephalosporins or penicillin.	Hypersensitivity, previous hearing loss	Hypersensitivity: phenylketonuria hypersensitivity
Side Effects/Adverse Reactions (2)	Hyperlipidemia, hyperkalemia	Dizziness and headache.	Edema, hearing loss	Ototoxicity, hypotension	Constipation, bronchospasm
Nursing Considerations (2)	Solution should appear clear, colorless to pale yellow. Always flush I.V. access with 0.9% Sodium Chloride Injection or 5% Dextrose Injection before and after administration.	Implement fall-prevention strategies, especially in older adults. Help the patient explore non pharmacologic methods to improve sleep, such as relaxation techniques.	Obtain culture and sensitivity results, if possible and as ordered, before giving drug. Monitor BUN and serum creatinine levels.	Assess for infection throughout treatment. Monitor I&O ratio.	Assess for absence of nausea or vomiting during treatment. Assess for hypersensitivity reaction: rash, bronchospasm.
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Use extreme caution in patients with an increased risk of	Assess the patient's inability to sleep. Monitor the	Regular blood tests and blood glucose.	Monitor blood tests; CBC.	Monitor ECG.

	hemorrhage, Check routine CBC.	patient's blood glucose, coagulation panel, and lipid panel during therapy.			
Client Teaching needs (2)	NSAIDs may increase risk for bleeding. Teach patient or family member how to give enoxaparin at home.	Take melatonin on an empty stomach 30 minutes before sleeping (Jones & Bartlett, 2021). Take melatonin only if you have time to get a full night's sleep (Jones & Bartlett, 2021).	Urge patient to report watery, bloody stools to prescriber immediately, even up to 2 months after drug therapy has ended. Advise patient to report any hypersensitivity reactions, such as a rash, itching skin, or hives, to prescriber immediately and to stop taking the drug.	Advise patient to report sore throat, fever, fatigue; could indicate superinfection. Instruct patient that product must be taken in equal intervals around the clock to maintain blood levels.	Instruct patient to report diarrhea, constipation, rash, changes in respirations, or discomfort. Teach the patient the reason for the medication and the expected results.

Medications Reference (1) (APA):

Jones & Bartlett Learning, LLC. (2021). *2021 Nurse's Drug Handbook* (21st ed.).

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Alert and oriented; however lethargic Oriented to person, place, and time. Acute distress Clean and neat
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score: 22** **Drains present: Y☐ N ☒** **Type:**	Skin is pink, warm, and dry upon palpation. No rashes, lesions, or bruising. Normal quantity, distribution, and texture of hair. Skin elasticity is quick to return to its original state. Skin is without discoloration and pressure points without redness. A temporal temperature was taken and was 97.3 F. Skin turgor was normal. The Braden score was 22. No drains present on the body.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head/face/eyes/nose symmetrical at rest and with movement. Trachea is midline without deviation. Normal oral cavity and good oral hygiene. Dentition is good and oral mucosa is pink and moist without lesions. No lymphadenopathy in the head or neck is noted. Bilateral sclera white, bilateral cornea clear, bilateral conjunctiva pink, no visible drainage from eyes. Hard palate intact.
CARDIOVASCULAR: **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 rhythm, S1, S2; no reported chest pain. Normal rate and sinus rhythm. No murmurs, gallops, or rubs. Capillary refill less than 3 seconds fingers and toes bilaterally. No neck vein distention observed. No edema inspected or palpated in all extremities.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):** **Respiration rate:** **FiO2:**	Regular depth and pattern; unlabored; expansion symmetrical; breath sounds clear and equal bilaterally; no cough. Clear in anterior, posterior, and laterally. Crackles auscultated. Patient is not on oxygen. Patient does not have an ET tube.

Total volume (TV): **PEEP:** **VAP prevention measures:**	
GASTROINTESTINAL: **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:**	Abdomen is soft and nondistended. No organomegaly or masses or pain noted upon palpation of all four quadrants. Bowel sounds audible, normoactive in 4 quadrants. No scars, incision, drains, or wounds noted. Last bowel movement was on 9/13/23. Patient does not have an ostomy, NG tube, or a feeding tube.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:** **CAUTI prevention measures:**	Color of urine if yellow/cloudy. Patient voided 600 mL during this shift. No pain with urination. Patient is not on dialysis. Did not inspect genital area. Patient does not have an external catheter.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score: 1** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐**	All extremities have full range of motion. Hand grips, pedal pushes, and pulls demonstrate normal and equal strength. Balanced and smooth gait. No observed joint swelling, or tenderness. All extremities with symmetrical movement bilaterally. Patient is independent and doesn't use equipment. Patient's fall score is a 1. Patient is week and lethargic.

Needs support to stand and walk☐	
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Person was alert and knew the person, place and time. Normal movement of all extremities, Normal PERLA. Equal strength in all extremities. Orientation, mental status, speech, and sensory are all within normal limits. Level of consciousness is alert and oriented.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level: Intimacy vs. isolation** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	The patient states that she enjoys spending time with her husband and daughter. Patient states that she doesn't practice any religion. Patient copes with stress by walking outside or sitting on her front porch. Patient is at an adult developmental level. Patient lives with husband and daughter, in a house.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0010	**96**	**124/74**	**18**	**97.3 F (36.3 C)**	**100**
0300	**91**	**127/63**	**18**	**98.5 F (36.9 C)**	**98**

Vital Sign Trends/Correlation:

Patient’s vitals remained stable during the shift. The patient’s blood pressure was slightly over the normal limit in the morning. This slightly high blood pressure is due to the patient’s condition of DKA.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0010	**0 – 10**	**PT denies pain.**	**PT denies pain.**	**PT denies pain.**	**PT denies pain.**
0300	**0 – 10**	**PT denies pain.**	**PT denies pain.**	**PT denies pain.**	**PT denies pain.**

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:**	20 Gauge Right antecubital 09/12/23 Patent None Clean, dry, and intact
Other Lines (PICC, Port, central line, etc.)	Central Line
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y ☒ N ☐** **CLABSI prevention measures:**	18 Gauge Basilic Vein Left arm. 09/12/2023 Patent No signs of erythema and drainage Clean, dry, intact 09/12/2023 Hand hygiene, gloves and CUROS cap at all time.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
5% Dextrose in water w/ 0.45 Sodium Chloride – 1000 mL **Sodium phosphate – 800 mL** **Insulin Drip – 193 mL** **= 1993 mL**	**600 mL**

Nursing Care

Summary of Care (2 points)

Overview of care: During the shift, the patient remained stable. The patient's blood glucose was checked twice during the shift. The patient was 198 before this nursing student left the floor.

Procedures/testing done: During the shift, the patient CT done to see her pancreases.

Complaints/Issues: The patient did not have any complaints or issues during the shift.

Vital signs (stable/unstable): The patient's vitals were stable, and she did not complain of any pain (rated a 0/10).

Tolerating diet, activity, etc.: The patient refused to eat during this shift. The patient is on dextrose 5% in water and is ambulating well.

Physician notifications: The physician was notified of the patient's normal blood glucose levels and no reported pain. Physician plans on a possible discharge today, once glucose is stable and patient medically ready.

Future plans for client: The patient doesn't have a discharge plan yet. The patient is still in CCU and will continue monitoring blood glucose and taking her insulin as prescribed.

Discharge Planning (2 points)

Discharge location: Patient will be discharged and going home.

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: Patient will follow up with PCP (Primary Care Physician) after discharge.

Education needs: The patient should be educated on the importance of taking her insulin as prescribed, so she doesn't develop DKA again.

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. • Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
Ineffective breathing pattern related to DKA as evidenced by acidosis.	This nursing diagnosis was chosen because the patient had an acute onset of shortness of breath prior to arrival to the hospital that is related to her DKA.	1. Monitor oxygen saturation levels and assess depth or rhythm of respirations every hour to maintain oxygen over 95% (Phelps, 2021). 2. Elevate head of bed (Phelps, 2021).	1. The outcome goal is for the patient to develop a regular rate and rhythm of respirations. Watching the client's chest rise and fall and counting a normal value of 12-20 respirations to achieve the goal.	The patient's oxygen level and respirations have gradually improved and are both within normal ranges. The patient verbalized improvement with breathing after the head of the bed was elevated. The patient also understands the importance of hourly monitoring of her oxygen saturation and

				respirations.
Risk for fluid and electrolyte imbalance related to DKA as evidenced by a glucose of 834 mg/dL.	This nursing diagnosis was chosen because the patient's hyperglycemia causes a severe fluid and electrolyte imbalance.	1. The patient will be started on an insulin drip and potassium will be checked (Phelps, 2021). 2. The nurse will verbalize and provide printed material to the patient on the side effects of unmanaged diabetes (Phelps, 2021).	1. The goal of these interventions is to lower the patient's glucose at least to 170 mg/dL and monitor the patient's potassium to stay under 5.0.	The patient received IV insulin to help control the glucose. This therapy will help correct the patient's DKA. The patient's electrolyte level has remained within normal limits which indicates no additional supplement needed at this moment.
Acute kidney Injury related to hyperglycemia as evidenced by electrolyte imbalance	This nursing diagnosis was chosen due to the patient's sodium 123, potassium 6.7, BUN 65, and creatinine 2.69.	Monitor the patient's CBC routinely (Phelps, 2021). Monitor I&O (Phelps, 2021).	The outcome of this goal is for the patient not to get chronic kidney injury.	The patient received education on taking her medication correctly and correcting her blood sugar.
Knowledge deficit related to UTI as evidence by patient not properly doing perineal care.	This nursing diagnosis was chosen because patient's WBC was elevated due to UTI.	Monitor WBC count (Phelps, 2021). Encourage patient to finish full course of antibiotics as prescribed (Phelps, 2021).	The outcome of goal for the patient does not get UTI in the future.	The patient received education on proper perineal care, and she is willing to follow it.

Deficient knowledge related to prevention of DKA as evidenced by development of hyperglycemia.	This nursing diagnosis was chosen because the patient could have avoided this serious condition by taking her insulin.	1. Explain the signs and symptoms of diabetic ketoacidosis (Phelps, 2021). 2. Review the medication regimen, including onset, peak, and duration of prescribed insulin, as applicable with the patient (Phelps, 2021).	1. The goal of these interventions is to prevent the development of DKA through teaching the patient about signs and symptoms to look out for and to stick to her medication regimen. The patient should plan accordingly with their medication regimen, so she doesn't run out of insulin.	During the shift, the patient received education from the nurse about these signs and symptoms. She developed an understanding of the information being presented. The nurse also went over her medication regimen and the client also developed a greater understanding of how to take her insulin. The patient states she will stay on top of her medication regimen so she doesn't run out of insulin again.

Other References (APA):

Phelps, L.L. (2020). Sparks and Taylor's nursing diagnosis reference manual (11th ed.). Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

Confusion, SOB, nausea, vomiting, and periumbilical area discomfort.

Objective Data

Na- 123
K+ 6.7
Cl 94
Glucose 834
BUN 65
Creatinine 2.69
Phosphate 1.3
Hgb A1c 8.5
Ketones small
Urine Culture 100,000 CFU/ML
pH 6.81

Client Information

The patient is a 32-year-old female who presents to the ED via EMS complaining confusion started 2-3 hours before arrival as an acute onset. Associated with nausea, vomiting, shortness of breath, confusion, and periumbilical area discomfort, which also started 2-3 hours before arrival as acute onset. The patient was also diagnosed with UTI on 09/05/2023.

Nursing Diagnosis/Outcomes

Ineffective breathing pattern related to DKA as evidenced by acidosis.
- The outcome goal is for the patient to develop a regular rate and rhythm of respirations. Watching the client's chest rise and fall and c…

Risk for fluid and electrolyte imbalance related to DKA as evidenced by a glucose of 834 mg/dL.
- The goal of these interventions is to lower the patient's glucose at least to 170 mg/dL and monitor the patient's potassium to stay under 5.0.

Acute kidney Injury related to hyperglycemia as evidenced by electrolyte imbalance.
- The outcome of this goal is for the patient to not get chronic kidney injury.

Knowledge deficit related to UTI as evidence by patient poor perineal care.
- The outcome of Goal for the patient does not get UTI in the future.

Deficient knowledge related to prevention of DKA as evidenced by development of hyperglycemia.
- The goal of these interventions is to explain the signs and symptoms of DKA through teaching the patient about signs and symptoms to look out for and to stick to her medication regimen. The patient should plan accordingly with their medication regimen, so she doesn't run out of insulin.

Nursing Interventions

1. Monitor oxygen saturation levels and assess depth or rhythm of respirations every hour to maintain oxygen over 95% (Phelps, 2021).
2. Elevate head of bed (Phelps, 2021).
3. The patient will be started on insulin drip and potassium will be checked (Phelps, 2021).
4. The nurse will verbalize and provide printed material to the patient on the side effects of unmanaged diabetes (Phelps, 2021).
5. Monitor the patient's CBC routinely (Phelps, 2021).
6. Monitor I&O (Phelps, 2021).
7. Monitor WBC count (Phelps, 2021).
8. Encourage the patient to finish full course of antibiotics as prescribed (Phelps, 2021).
9. Explain the signs and symptoms of diabetic ketoacidosis (Phelps, 2021).
10. Review the medication regimen, including onset, peak, and duration of prescribed insulin, as applicable with the patient (Phelps, 2021).