N321 Care Plan # 2

Lakeview College of Nursing

Teionna Saccocio

Demographics (3 points)

Date of Admission 04/05/2020	Patient Initials B.J	Age 73	Gender F
Race/Ethnicity caucasian	**Occupation** Retired English teacher	**Marital Status** married	**Allergies** NKDA
Code Status Full	**Height** 63 inches	**Weight** 100 kg	

Medical History (5 Points)

Past Medical History: diabetes mellitus type 1, coronary artery disease, hyperlipidemia, hypertension

Past Surgical History: left heel spur removed

Family History: maternal and paternal history of HTN, maternal history of myocardial infarction

Social History (tobacco/alcohol/drugs): Denies drug, tobacco, or alcohol use

Assistive Devices: walker

Living Situation: lives at home with husband

Education Level: high school diploma

Admission Assessment

Chief Complaint (2 points):swollen left foot with foul odor

History of present Illness (10 points):Patient had an outpatient surgery to remove a left heel spur 3 weeks ago. 4 days before being admitted, the patient began experiencing abdominal pain, nausea, and intermittent vomiting. The patient has not been taking any insulin or eating. It is unknown whether the patient has tried anything to relieve the pain.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Diabetic ketoacidosis

Secondary Diagnosis (if applicable):.

Pathophysiology of the Disease, APA format (20 points): The patient has Type 1 diabetes mellitus and her husband reported that she had not been taking insulin because she had not been eating. The husband did not say whether or not the patient had been checking her own blood glucose levels. "Ketone formation is a consequence of lipolysis, which occurs in the absence of endogenous insulin," (Capriotti, p. 565, 2016). In diabetes Type 1, the body no longer makes insulin or does not make enough insulin due to the body's destruction of pancreatic beta cells. The patient presented with symptoms of DKA that includes abdominal pain, nausea and vomiting, and Kussmaul's respirations (Capriotti, 2016). The patient's ABG values shows that she is in metabolic acidosis and her body was also trying to compensate by releasing carbon dioxide.

When there is a lack of insulin that enters the cells, the liver compensates by releasing an increased amount of glucose which creates a state of hyperglycemia (Hinkle, 2018). She had polyuria at home prior to admission and by the time she got to the hospital she was dehydrated from losing so much water and electrolytes.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis Company.

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarths textbook of medical-surgical nursing*. Wolters Kluwer.

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	4.28-5.56			
Hgb	13-17	15.4 g/dL		normal
Hct	38.1-48.9	48.2%		normal
Platelets	149-393			
WBC	4-11.7		4,200 mL	normal
Neutrophils	45.3-79		75%	normal
Lymphocytes	11.8-45.9		20%	normal
Monocytes	4.4-12			
Eosinophils	0-6.3			
Bands	0-5		15%	Infection or inflammation

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-	136-145	152 mEq/L	162 mEq/L	Dehydration related to metabolic acidosis
K+	3.5-5.1	5.8 mEq/L	6.0 mEq/L	Related to metabolic acidosis
Cl-	98-107	108 mEq/L	115 mEq/L	Related to metabolic acidosis
CO2	21-31			
Glucose	74-109	400 mg/dL	320 mg/dL	Lack of use of insulin
BUN	7-25	28 mg/dL	80 mg/dL	Related to inadequate fluid or primary kidney failure

Creatinine	**0.7-1.3**	**1.5 mg/dL**	**3.2 mg/dL**	**Related to inadequate fluid or primary kidney failure**
Albumin	**3.5-5.2**		**2.2 g/dL**	**Low insulin levels**
Calcium	**8.6-10.3**	**8.3 mEq/L**	**11.2 mEq/L**	**Related to metabolic acidosis and insulin deficiency**
Mag	**1.6-2.4**			
Phosphate				
Bilirubin	**0.3-1**	**0.6**		**normal**
Alk Phos	**34-104**			
AST	**13-39**			
ALT	**7-52**			
Amylase				
Lipase				
Lactic Acid				

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				
PT				
PTT				
D-Dimer				
BNP				

HDL				
LDL				
Cholesterol				
Triglycerides				
Hgb A1c	**4-6**	**6.3**		**Normal range for a person with diabetes**
TSH				

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				
pH				
Specific Gravity				
Glucose				
Protein				
Ketones	**negative**	**positive**		**Lack of glucose in cells**
WBC				
RBC				
Leukoesterase				

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**

		n		
Urine Culture				
Blood Culture				
Sputum Culture				
Stool Culture				

Lab Correlations Reference (APA): Sarah Bush Lincoln Health Center (2019). *Reference Range. (lab values)*. Mattoon, IL.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): EKG

Diagnostic Test Correlation (5 points): Sinus tachycardia with peaked T waves

Diagnostic Test Reference (APA): Diabetes Care Plan Powerpoint (2020)

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

Home Medications (5 required)

Brand/ Generic	Zocor/ simvastatin	Novolog/ insulin aspart	Levemir/ insulin detemir	Prinivil/ lisinopril	ASA/ aspirin	Tenormin/ atenolol
Dose	40 mg	10 units	40 units	30 mg	81 mg	25 mg
Frequency	daily	AC	daily	daily	daily	daily
Route	PO	subcutaneous	subcutaneous	PO	PO	PO
Classification	Antihyperlipidemic	antidiabetic	antidiabetic	antihypertensive	antiplatelet	Antihypertensive
Mechanism of Action	Reduces the formation of an acid necessary for cholesterol synthesis	Lower blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production	Lower blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production	Reduces blood pressure by inhibiting the conversion of angiotensin I to angiotensin II	Inhibits platelet aggregation	Decreases release of renin from the kidneys, aiding in reducing blood pressure.
Reason Client Taking	hyperlipidemia	DM type 1	DM type 1	HTN	CAD	HTN
Contraindications (2)	Active hepatic disease, breastfeeding	Hypoglycemia, allergy or hypersensitivity	Hypoglycemia, allergy or hypersensitivity	History of angioedema, use of neprilysin inhibitor	Bleeding problem, asthma	Cardiogenic shock, heart block greater than first degree
Side Effects/Adverse Reactions (2)	Abdominal pain, constipation	Hypoglycemia, lipodystrophy	Hypoglycemia, lipodystrophy	Blurred vision, abdominal pain	GI bleeding, ecchymosis	Dry eyes, arrhythmias

Nursing Considerations (2)	**Give 1 hour before or 4 hours after giving bile acid sequestrants.** **Use cautiously in elderly patients**	**Assess patient for signs and symptoms of hypoglycemia and hyperglycemia periodically during therapy.** **Monitor body weight periodically.**	**Assess patient for signs and symptoms of hypoglycemia and hyperglycemia periodically during therapy.** **Monitor body weight periodically.**	**Use cautiously in patients with fluid volume deficit, heart failure, impaired renal function, or sodium depletion.** **Monitor blood pressure often, especially during the first two weeks of therapy**	**Don't crush time-release or controlled release aspirin tablets unless directed to do so.** **Ask about tinnitus.**	**Use cautiously in diabetic patients because it may mask tachycardia caused by hypoglycemia.** **Stop atenolol and notify prescriber if patient develops bradycardia, hypotension, or other serious adverse reactions.**

Hospital Medications (5 required)

Brand/ Generic	**heparin**	**Zantac/ ranitidine**	**NPH Humulin / regular insulin**	**Lantus/ insulin Glargine**	**Zosyn/ Piperacillin/ tazobactam**	**5% dextrose in water**
Dose	**5,000 units**	**50 mg**	**40 units**	**50 units**	**3.375 g**	**100 mL/ hr**

Frequency	**Q12h**	**Q12h**	**postprandial**	**HS**	**Q6h**	**continuous**
Route	**subcutaneous**	**IV**	**subcutaneous**	**subcutaneous**	**IV**	**IV**
Classification	**anticoagulant**	**Antiulcer agent**	**antidiabetic**	**antidiabetic**	**antiinfective**	Caloric source
Mechanism of Action	**Potentiates the inhibitory effect of antithrombin on factor a and thrombin.**	**Inhibits basal and nocturnal secretion of gastric acid and pepsin by inhibiting the action of histamine at H_2 receptors on gastric parietal cells.**	**Lower blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production**	**Lower blood glucose by stimulating glucose uptake in skeletal muscle and fat, inhibiting hepatic glucose production**	**Binds to bacterial cell wall membrane, causing cell death.**	**Provides calories**
Reason Client Taking	**VTE prophylaxis**	**Assist with gastric secretions while in the hospital**	**DM Type 1**	**DM Type 1**	**Diabetic foot wound**	**DKA**
Contraindications (2)	**Uncontrolled bleeding, bacterial endocarditis**	**Acute porphyria, hypersensitivity**	**Hypoglycemia, allergy or hypersensitivity**	**Hypoglycemia, allergy or hypersensitivity**	**Hypersensitivity to penicillin**	**Allergy to corn or corn products, CNS bleeding**
Side Effects/Adverse Reactions (2)	**Bleeding, heparin-induced thrombocytopenia**	**Abdominal distress, bronchospasm**	**Hypoglycemia, lipodystrophy**	**Hypoglycemia, lipodystrophy**	**Diarrhea, phlebitis**	**Fluid overload, glycosuria**
Nursing Considera	**Assess for signs of**	**Tell patient**	**Assess patient**	**Assess patient**	**Observe patient for signs and**	**Monitor intake**

tions (2)	**bleeding and hemorrhage.** **Only administer heparin via I.V. or subcutaneous route**	**that he or she may take drug with food .** **Advise patient to take antacids 2 hours before or after ranitidine**	**for signs and symptoms of hypoglycemia and hyperglycemia periodically during therapy.** **Monitor body weight periodically.**	**for signs and symptoms of hypoglycemia and hyperglycemia periodically during therapy.** **Monitor body weight periodically.**	**symptoms of anaphylaxis. Monitor bowel function**	**and output and electrolyte concentrations.** **Monitor IV site frequently for phlebitis and infection**

Medications Reference (APA):

Student and instructor online resource center supporting F.A. Davis titles. (2020). https://davisplus.fadavis.com/

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

Assessment

Physical Exam (18 points)

<table>
<tr><td>GENERAL (1 point):
Alertness: stupor
Orientation: confused
Distress: noted distress
Overall appearance: unkempt</td><td></td></tr>
<tr><td>INTEGUMENTARY (2 points):
Skin color: flushed
Character: dry and cracked lips
Temperature: hot
Turgor: poor
Rashes: none
Bruises: none
Wounds: left diabetic foot wound
Braden Score: 16
Drains present: Y☐ N ☒
Type:</td><td></td></tr>
<tr><td>HEENT (1 point):
Head/Neck: normocephalic
Ears: clear
Eyes: PERRLA
Nose: clear
Teeth: intact</td><td>Patient has fruity odor on her breath
.</td></tr>
<tr><td>CARDIOVASCULAR (2 points):
Heart sounds: S1, S2, no murmurs
S1, S2, S3, S4, murmur etc.
Cardiac rhythm (if applicable): sinus tachycardia
Peripheral Pulses: 1+
Capillary refill: greater than 3 seconds
Neck Vein Distention: Y ☐ N ☒
Edema Y ☒ N ☐
Location of Edema: left foot</td><td>Pale nail beds, 15 cm open wound on left heel with a moderate amount of green purulent drainage</td></tr>
<tr><td>RESPIRATORY (2 points):
Accessory muscle use: Y☒ N ☐
Breath Sounds: Location, character</td><td>Breath sounds are present and equal, no adventitious breath sounds, patient’s breaths are rapid</td></tr>
<tr><td>GASTROINTESTINAL (2 points):
Diet at home: regular</td><td>.</td></tr>
</table>

Current Diet: NPO **Height: 63 inches** **Weight:100 kg** **Auscultation Bowel sounds: hypoactive** **Last BM: unknown** **Palpation: Pain, Mass etc.: soft** **Inspection:** **Distention: slightly** **Incisions: none** **Scars: none** **Drains: none** **Wounds: none** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY (2 Points): **Color: dark amber** **Character: clear** **Quantity of urine: 25 mL** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type: French** **Size: 16**	
MUSCULOSKELETAL (2 points): **Neurovascular status: confused** **ROM: diminished** **Supportive devices: walker** **Strength: weak** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 55** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**Patient needs assistance with equipment and to stand and walk.**
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☒**	**Patient responds to repeated stimulation**

Orientation: to self **Mental Status: confused** **Speech: clear** **Sensory: she does not have glasses or hearing aids** **LOC: stupor**	
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level: Appropriate for age** **Religion & what it means to pt.: Catholic** **Personal/Family Data (Think about home environment, family structure, and available family support): husband is support system**	.

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0800	115	82/48	28	102 F	95
1200	115	90/82	20	100 F	95

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0800	numeric	Left foot	5/10	None given	none
1200	numeric	Left foot	6/10	Sharp, burning	none

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 18g **Location of IV: left forearm** **Date on IV: 04/05/2020** **Patency of IV: patent** **Signs of erythema, drainage, etc.: no redness, tenderness, or drainage** **IV dressing assessment: clean, dry, intact**	100 mL/hr 5% dextrose in NS

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
NPO	425 mL

Nursing Care

Summary of Care (2 points)

Overview of care: Patient is being treated for DKA with fluids and insulin at the current time. She is being treated with antibiotics for her diabetic foot wound.

Procedures/testing done: An EKG and a scan were done.

Complaints/Issues: Patient has a wound on her left heel that appears to be infected,

Vital signs (stable/unstable): Patient is tachycardic, hypotensive, tachypneic, and febrile

Tolerating diet, activity, etc.: Patient is NPO

Physician notifications: Physician is aware

Future plans for patient: Rehydrate patient and decrease blood glucose levels

Discharge Planning (2 points)

Discharge location: Patient will be discharged home with husband

Home health needs (if applicable): none

Equipment needs (if applicable): none

Follow up plan: No current follow up plan at this time

Education needs: Patient needs to be educated about use of insulin when she is not intaking food and checking feet daily.

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. Deficient fluid volume r/t dehydration as evidenced by excess excretion of urine, nausea, vomiting, increased respirations	**Patient presented with hypernatremia in a metabolic acidosis state.**	**1.Monitor pulse, respirations, and blood pressure every 4 hours for the stable patient.** **2.Monitor fluid intake and output every 4 hours .**	**Maintain normal blood pressure, heart rate, and body temperature.** **Maintain urine output of 0.5 mL/kg/hr or at least more than 1300 mL a day.**
2. Risk for infection r/t diabetic foot wound as evidenced by green purulent drainage and foul odor.	**Patient presented with an open foor wound that has a foul odor and green drainage. The patient's band count are also elevated indicating infection.**	**1. Observe and report signs of infection such as redness, warmth, discharge, and increased body temperature** **2.Assess skin for color, moisture, texture, and turgor. Keep accurate, ongoing documentation of changes.**	**Remain free from symptoms of infection during contact with health care providers.** **Maintain white blood cell count and differential within normal limits within 48 hours of treatment initiation.**
3. Imbalanced	**Patient had not**	**1. Observe for**	**Patient will be free of**

Nutrition r/ t diabetic ketoacidosis as evidenced by patient not eating prior to admission and NPO status	**been eating for the last two days and is now NPO at the hospital.**	**potential barriers to eating such as willingness, ability, and appetite.** **2 Not laboratory values cautiously; albumin may be indicative of an inflammatory response that accompanies acute malnutrition.**	**signs of malnutrition.** **Patient will weigh within normal range for height and age.**

Other References (APA):

Concept Map (20 Points):

nausea, vomiting, increased respirations
Risk for infection r/t diabetic foot wound as evidenced by green purulent drainage and foul odor.
Imbalanced Nutrition r/t diabetic ketoacidosis as evidenced by patient not eating prior to admission and NPO status

N321 Care Plan

Subjective Data

Husband states that patient stopped eating and stopped taking her insulin
She urinated frequently at home.
She seemed confused and drowsy

Nursing Diagnosis/Outcomes

Maintain normal blood pressure, heart rate, and body temperature.

Maintain urine output of 0.5 mL/kg/hr or at least more than 1300 mL a day.
Remain free from symptoms of infection during contact with health care providers.

Maintain white blood cell count and differential within normal limits within 48 hours of treatment initiation.
Patient will be free of signs of malnutrition.

Patient will weigh within normal range for height and age.

Objective Data

Patient is febrile
She is in metabolic acidosis
She is dehydrated
She is hyperglycemic
She is in a stupor but can be aroused

Patient Information

73 y/o Caucasian female presented with a history of DM Type 1 presented with hyperglycemia, Kussmaul's respiration, tachycardia, nausea and vomiting, and an infected diabetic foot wound.

Nursing Interventions

patient.

2.Monitor fluid intake and output every 4 hours .
1. Observe and report signs of infection such as redness, warmth, discharge, and increased body temperature

2.Assess skin for color, moisture, texture, and turgor. Keep accurate, ongoing documentation of changes.
. Observe for potential barriers to eating such as willingness, ability, and appetite.

2 Not laboratory values cautiously; albumin may be indicative of an inflammatory response that accompanies acute malnutrition.