N311 Care Plan # 2

Lakeview College of Nursing

Jordan Helton

Demographics (5 points)

Date of Admission 10/18/20	Patient Initials R.W.	Age 46	Gender Male
Race/Ethnicity Caucasian	Occupation Supervisor	Marital Status Divorced	Allergies NKA
Code Status Full Code	Height 6'2" (62 in.)	Weight 255 lb 4.7 oz. (115.8 kg)	

Medical History (5 Points)

Past Medical History: diabetes, DVT femoral, enlarged heart, HTN, kidney calculi, neuropathy, osteoporosis, sarcoidosis, gout

Past Surgical History: Oral surgery procedure (broken jaw), ureteral stent

Family History: Father- heart disease

Social History (tobacco/alcohol/drugs): Pt reports smoking ten cigarettes per day. Pt reports no use of alcohol or drugs.

Admission Assessment

Chief Complaint (2 points): Hyperglycemia symptomatic w/ dizziness and blurred vision

History of present Illness (10 points): On October 18th, a 46 y/o, white, divorced, male arrived at St. Anthony ED for symptoms of hyperglycemia that include dizziness and blurred vision. He reported having high sugar every time he checked his blood sugar since 10/16/20. He reports keeping his sugar low but is unable to keep sugars low lately. He administers 28 units of Humalog before every meal and 20 units of Tresiba nightly. Urinary frequency and intermittent dysuria are reported by patient. Two weeks ago, patient went to Carle for a ureteral stent for a 14 mm right sided kidney stone and right flank pain. Patient has history of neuropathy with no symptoms.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Diabetic Ketoacidosis (DKA)

Secondary Diagnosis (if applicable): N/A

Pathophysiology of the Disease, APA format (20 points): Diabetic Ketoacidosis (DKA) is a serious complication where the body produces excess blood acids known as ketones. The condition can occur when there isn't enough insulin in the body. It could be triggered by infection or other illness (Capriotti, 2016). Diabetic coma or even death is a result of DKA. Cells need glucose for energy to perform their task. If cells are unable to receive the glucose, the body begins to burn fat for energy in which ketones are produced. DKA is more commonly in Type 1 diabetics due to the body being unable to produce its own insulin. In the lungs, the body rids of acid by hyperventilating to release carbon dioxide (Capriotti, 2016). For this pt, his DKA has been a result of being a diabetic. His body is unable to produce its own insulin for cells to use the glucose. He has been unable to control his blood sugar for the last two days.

Signs and symptoms of DKA include thirst, frequent urination, nausea, abdominal pain, weakness, fruity-scented breath, and confusion (Capriotti, 2016). Another problem of DKA is pain in the abdomen that can radiate as flank pain. As in my pt, he reports right flank and abdominal pain. He reports frequently needing to use the restroom. These symptoms have appeared with his diabetes.

To diagnose DKA, a urinalysis is ordered to determine. Urinalysis help detect many problems relating to diabetics. "Values reflect dehydration and metabolic acidosis secondary to hyperglycemia, abnormal lipolysis, and osmotic diuresis; fluid loss 6.5 L or more." (Swearingen, 2019) The best and only way to detect DKA is by urinalysis.

Without treatment, patients with DKA can possibly die. Patients with DKA should have blood glucose evaluated every 1 to 2 hours until stabilized. Fluid replacement is very important to fight off dehydration and hyperosmolarity that is caused by high blood sugar. Intravenous insulin can be given until blood sugar is lower than 250 mg/dL. Subcutaneous can be given to maintain sugars between 150 and 200 mg/dL. This patient is being given IV fluid through right forearm to help with dehydration. Insulin is given before all meals to help control sugars while eating. The ultimate goal is to keep his blood sugar down to his normal range without any concern of DKA being an obstacle.

Pathophysiology References (2) (APA):

Capriotti, T. M. & Frizzell, J. P., (2016). *PATHOPHYSIOLOGY : introductory concepts and clinical perspectives.* F A Davis.

Swearingen, P. L., & D, J. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. Elsevier.

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

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	4.4-5.5	4.79	3.84	Pt reported having hematuria early this AM. Ureteral stent placed in has possibly moved around. Blood loss through urine give low lab values for Hgb, Hct, and platelets. (Capriotti, 2016)
Hgb	13.1-16.0	14.9	11.7	Presence of blood in urine lowers Hgb

				in the body.
Hct	39.8-48.5	42.5	35.1	Presence of blood in urine lower Hct in the body.
Platelets	145-358	182	123	Presence of blood in urine lowers platelets in body. The blood consists of platelets.
WBC	4.6-9.1	7.7	4.1	The body does not have enough defense for infection. An offset of DKA. Ureteral stent was placed in to help pass a kidney stone and prevent the UTI.
Neutrophils	2.3-5.7	5.79	2.87	
Lymphocytes	1.1-3.3	1.03	0.65	Lymphocytes are cells to prevent infection. The body does not have enough to fight off an infection from onset of DKA.
Monocytes	0.3-0.8	0.56	0.35	
Eosinophils	0.03-0.45	0.24	0.16	
Bands	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-	136-145	128	137	
K+	3.5-5.1	4.5	4.7	
Cl-	98-107	93	110	High chloride levels indicate dehydration, kidney disease, and acidosis. In this case, high lab result is due to dehydration in the body (Corbett & Banks, 2019)
CO2	21-32	25	23	
Glucose	74-106	660	235	Glucose molecules are not being absorbed by the cells. This leads to

				build up of glucose. (Corbett & Banks, 2019)
BUN	7-18	22	20	Dehydration, heart failure, and diet high in protein cause high levels of BUN. Dehydration has been a problem for said patient. The body is working harder to filter urine. (Corbett & Banks, 2019)
Creatinine	0.7-1.3	1.69	1.09	
Albumin	3.4-5.0	3.8	2.9	Ketogenesis is the creation of ketones. Ketones are produced when fat is burned for fuel. Proper nutrition is diminished when glucose is unable to be used as energy. (Capriotti, 2016)
Calcium	8.5-10.1	10	8.6	
Mag	1.6-2.6	2.2	N/A	
Phosphate	N/A	N/A	N/A	
Bilirubin	0.2-1.0	1.1	0.6	
Alk Phos	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	Yellow	Light yellow	N/A	
pH	5-9	5.0	N/A	
Specific Gravity	1.003-1.030	1.032	N/A	
Glucose	NEG	+4	N/A	
Protein	NEG	trace	N/A	
Ketones	NEG	NEG	N/A	

WBC	0-5	5-10	N/A	
RBC	0-5	20-50	N/A	
Leukoesterase	NEG	+1	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	NEG	Beta Streptococcus Group B	N/A	
Blood Culture	NEG	No growth (NEG)	N/A	
Sputum Culture	NEG	N/A	N/A	
Stool Culture	NEG	N/A	N/A	

Lab Correlations Reference (APA):

Capriotti, T. M. & Frizzell, J. P., (2016). *PATHOPHYSIOLOGY : introductory concepts and clinical perspectives.* F A Davis.

HSHS St. Anthony's Memorial Hospital (2020). *Reference Range (lab value).* Effingham, IL.

Jane Vincent Corbett, & Angela Denise Banks. (2019). *Laboratory tests and diagnostic procedures : with nursing diagnoses*. Pearson.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

- Electrocardiogram: ECG 12 Lead
- CT ABD & PEL: kidney stone
- XR Chest Portable

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/Generic	Humalog/ Insulin Lispro	Pepcid/ Famotidine	Glutose/ Dextrose (10% bolus infusion)	Surfak/ Docusate Sodium	Toprol-XL/ Metoprolol Succinate
Dose	20 units	1 tab (20 mg)	125-250 mL	100 mg	100 mg
Frequency	4x daily (before meals)	q 12 hours	Duration: 15 mins (PRN)	2x daily	daily
Route	subcutaneous	oral	intravenous	oral	oral
Classification	Rapid-acting insulin	Antiulcer agent	Glucose-elevating agent	Stool softener	Antihypertensive
Mechanism of Action	Regulation of glucose metabolism. Lowers blood glucose by stimulating peripheral glucose uptake.	An inhibitor of histamine H2-receptors. Inhibits the production of gastric juices. Reduces gastric and pepsin content.	Prevents nitrogen and protein loss, promotes glycogen deposition, prevents or decreases ketosis, and acts as an osmotic diuretic	Acts as a surfactant that softens stool by decreasing surface tension between oil and water in feces.	Inhibits stimulation of beta1-receptor sites in the heart, resulting in cardiac output, decreased cardiac excitability, and myocardial oxygen demand
Reason Client Taking	To help regulate blood sugar	To help treat heartburn and indigestion	PRN to help hypoglycemia	To help treat constipation	Pt has HTN and an enlarged heart
Contraindications (2)	Hypersensitive to Humalog, hypoglycemia	Other H2-receptor antagonists, hypersensitivity to famotidine	Diabetic coma with excessively elevated blood glucose level, severe	Fecal impaction, intestinal obstruction	Second- or third-degree AV block; severe peripheral arterial disorders

			dehydration		
Side Effects/Adverse Reactions (2)	Lipodystrophy, skin thickening or pits at injection site	Thrombocytopenia, AV block	Hypotension, Hyperglycemic hyperosmolar coma	Abdominal cramps, diarrhea	Arrythmias, heart failure

Medications Reference (APA):

2020 Nurse's drug handbook. (2020). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Alert and oriented to time, place, and person x3 No distress Well-groomed and appropriate for hospital setting
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** N/A **Bruises:** **Wounds:** . **Braden Score:** 22 **Drains present: Y☐ N ☒** **Type:** N/A	 Pink Warm & dry skin Skin turgor is in good range Bruise on upper left arm from a failed attempt of an IV in the ED. Keloids in middle of chest Burn on right forearm from conveyor belt Bursitis on left antecubital IV: right forearm 10/18/20
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Head and neck symmetrical and lymph nodes are not palpable TM is pearly gray and symmetric Eyes are PERRLA No deviated septum
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:**	 S1 and S2; no heart murmur present Normal Sinus Rhythm Strong and equal Less than 3 seconds

Neck Vein Distention: Y ☐ N ☒ **Edema Y ☐ N ☒** **Location of Edema:** N/A	
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Respiration are regular and even. No presence of crackles or wheezes. Vesicular breath sounds are present Chest expansion is equal.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** 6'2" **Weight:** 255 lb 4.7 oz **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** N/A **Feeding tubes/PEG tube Y ☐ N ☒** **Type:** N/A	Lowers carbohydrates at home and portion size meals Bowel sounds normoactive in all 4 quadrants Morning of 10/20/20 7 a.m. No CVA tenderness on left side; CVA tenderness on right side w/ right flank pain
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** 300 mL **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** N/A **Size: N/A**	Red; Pt reported hematuria earlier this morning; Stent is suspected to be loose that is causing the minor bleeding Normal
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score: 22**	Neuro: A&O x3 Strength in both upper and lower extremities Pt uses no supportive devices Strong, equal grip strength; leg strength strong

Activity/Mobility Status: **Independent (up ad lib) ☐X** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	Pt does not need any assistance ambulating. Pt is independent.
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Pt has been reported to have tingling in lower extremities due to past medical history of neuropathy. Pt reports no signs or symptoms. Alert & oriented x3 Speaks clear and fluently Alert (no impairment) A&O x3
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	 Has no coping methods; Takes one day at a time Appropriate for age N/A Pt is ready to be discharged today (10/20/20). Pt told stories about his brothers and daughter. He is very proud of his daughter that is in the USAF. His best friend of 30 years took him to the ED and will be picking him up.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1100	75 bpm	143/87 mmHg	18	97.6°F	97%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1110	Numeric 0-10	Right Flank	6/10	throbbing	N/A

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
0700 Oral- 200 mL	 Urine- 300 mL

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

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. Risk for Infection	Related to having a ureteral stent placed two weeks ago to pass a kidney stone as evidence by dysuria and hematuria that recently appeared.	**1.** Obtain sample for culture and sensitivity as indicated **2.** Encourage adequate fluid intake	Pt's lab results will be closely monitored for any suspicion of infection or UTI. Patient understand the importance of fluid intake. He tries to drink the recommended amount of fluids a day.
2. Risk for Unstable Blood Glucose Level	Related to having DKA and hyperglycemia as evidence by pt reporting having high blood sugar for two days. He came in with	**1.** Check blood sugars before and after every meal **2.**Monitor foods the patient consumes during each meal	Pt will check blood sugars before each meal to help portion his meals. Pt will be more careful on the foods he consumes to prevent high blood sugar.

	dizziness and blurred vision.		

Other References (APA):

Swearingen, P. L., & D, J. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. Elsevier.

Concept Map (20 Point

Subjective Data

Pt states, "I have pain that radiates from my right side to my back. Pain is a throbbing sensation and is 6/10."

Pt states, "I came in to the ED because I had blurred vision and felt dizzy. My blood sugar has been very high the last few days."

Pain assessment:
Location- right flank
Severity- 6/10
Characteristics- throbbing

Objective Data

A 46-year-old, white, divorced, male arrived at the ED morning of 10/18/20. Pt came in for dizziness and blurred vision. He reports his sugar levels have been high recently and will not go down. Pt has a history of diabetes and has a diagnosis of Diabetic Ketoacidosis.

Vitals:
BP- 143/87 mmHg
P- 75
T- 97.6°F
RR- 18
O_2- 97%

Patient Information

CC: Hyperglycemia symptomatic w/ dizziness and blurred vision

Nursing Diagnosis/Outcomes

1. Risk for infection related to having a ureteral stent placed two weeks ago to pass a kidney stone as evidence by dysuria and hematuria that resolved after
   a. Pt's lab results will be closely monitored for any suspicion of infection or UTI.
   b. Patient understand the importance of fluid intake. He tries to drink the recommended amount of fluids a day.
2. Risk for unstable blood glucose levels related to having DKA and hyperglycemia as evidence by pt reporting having high blood sugar for two days. He came in with dizziness and blurred vision.
   a. Pt will check blood sugars before each meal to help portion his meals.
   b. Pt will be more careful on the foods he consumes to prevent high blood sugar.
3. Risk for fluid volume deficit (dehydration) related to DKA and diabetes as evidence by frequent urination and having IV fluids.
   a. Pt will be able to clearly understand the importance to stay hydrated by drinking more fluids.
   b. Pt understands assessing skin turgor and moistened mucous membranes are good ways for him to determine hydration.

Nursing Interventions

1. Obtain sample for culture and sensitivity as indicated.
2. Encourage adequate fluid intake.
3. Check blood sugars before and after every meal.
4. Monitor foods the patient consumes during each meal.
5. Monitor hourly intake and output
6. Assess skin turgor, mucous membranes, and thirst