N311 Care Plan # 3

Lakeview College of Nursing

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Demographics

Date of Admission **10/23/20**	**Patient Initials** **E.A.**	**Age** **21**	**Gender** Female
Race/Ethnicity **White/Caucasian**	**Occupation** **Next Generation's employee**	**Marital Status** **Single**	**Allergies** **NKA (no known allergies)**
Code Status **Full Code**	**Height** **5'8''**	**Weight** **140 lbs**	

Medical History

Past Medical History: Diabetes Mellitus

Past Surgical History: None

Family History: Father: Diabetes; Grandfather: Diabetes

Social History (tobacco/alcohol/drugs): non-smoker, non-drinker, no drug use.

Admission Assessment

Chief Complaint (2 points): Diabetic Ketoacidosis, Diabetes type I, Gastroparesis

History of present Illness (10 points): A 21-year-old female was admitted with the symptoms of diabetic ketoacidosis and nausea. She had history of Diabetes type I at age 16. She had struggled with gastroparesis for many years. She was shopping when she started to show symptoms of uncontrolled nausea and vomiting. Nausea and minimal vomiting which was lessened after the patient sitting down started a few days prior to admission. Patient denied fever, chills, diarrhea, or symptoms of GI bleeding. Patient had an insulin pump which she had not used for a few days.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Diabetic Ketoacidosis associated with type I diabetes mellitus

Secondary Diagnosis (if applicable): None

Pathophysiology of the Disease, APA format (20 points): Diabetes mellitus (DM) is a disorder of carbohydrate metabolism (Capriotti,2016). Diabetes mellitus leads to high levels of blood glucose in the body due to the inability to produce insulin (Capriotti,2016). The large amount of glucose in the body can cause damage to blood vessels, renal, peripheral vascular, nervous systems (Pamela, 2019).

There are a few different types of diabetes. Type 1 diabetes is an autoimmune disease (Capriotti,2016). The immune system attacks and destroys cells in the pancreas, where insulin is made. It is unclear what causes this attack. About 10 percent of people with diabetes have this type. Type 2 diabetes occurs when your body becomes resistant to insulin, and sugar builds up in your blood. Prediabetes occurs when your blood sugar is higher than normal, but it is not high enough for a diagnosis of type 2 diabetes. Gestational diabetes is high blood sugar during pregnancy. Insulin-blocking hormones produced by the placenta cause this type of diabetes.

Different causes are associated with each type of diabetes. The cause for type 1 diabetes is unclear. For some reason, the immune system mistakenly attacks and destroys insulin-producing beta cells in the pancreas. Genes may play a role in some people. It is also possible that a virus sets off the immune system attack. Type 2 diabetes stems from a combination of genetics and lifestyle factors. Being overweight or obese increases the risk. Carrying extra weight, especially in the belly, makes the cells more resistant to the effects of insulin on blood sugar. This condition runs in families. Family members share genes that make them more likely to get type 2 diabetes and to be overweight. Gestational diabetes is the result of hormonal changes during pregnancy. The placenta produces hormones that make a pregnant woman’s cells

less sensitive to the effects of insulin. This can cause high blood sugar during pregnancy. Women who are overweight when they get pregnant or who gain too much weight during their pregnancy are more likely to get gestational diabetes. In this case, my patient's father and grandfather both have diabetes which might be the reason why she has diabetes type I.

Symptoms of diabetes are caused by rising blood sugar (Pamela, 2019). The general symptoms are increasing hunger, increasing thirst, weight loss, frequent urination, blurry vision, extreme fatigue. In addition to the general symptoms of diabetes, men with diabetes may have a decreased sex drive, erectile dysfunction (ED), and poor muscle strength while women with diabetes can also have symptoms such as urinary tract infections, yeast infections, and dry, itchy skin. The patient experience nausea, vomiting, and fatigue, yet she did not have frequent urination.

Certain factors increase your risk for diabetes. People are more likely to get type 1 diabetes if they are a child or teenager, have a parent or sibling with the condition, or carry certain genes that are linked to the disease. Risk factors for type 2 diabetes are overweight, age 45 or older, have a parent or sibling with the condition, not physically active, have had gestational diabetes, have prediabetes, have high blood pressure, high cholesterol, or high triglycerides, have African American, Hispanic or Latino American, Alaska Native, Pacific Islander, American Indian, or Asian American ancestry. My patient showed symptoms and was diagnosis with diabetes type I when she was 16.

Doctors treat diabetes with a few different medications. Some of these drugs are taken by mouth, while others are available as injections. Insulin is the main treatment for type 1 diabetes. It replaces the hormone the body is not able to produce. There are four types of insulin that are most commonly used. They are differentiated by how quickly they start to work, and how long

their effects last. Rapid-acting insulin starts to work within 15 minutes and its effects last for 3 to 4 hours. Short-acting insulin starts to work within 30 minutes and lasts 6 to 8 hours. Intermediate-acting insulin starts to work within 1 to 2 hours and lasts 12 to 18 hours. Long-acting insulin starts to work a few hours after injection and lasts 24 hours or longer. For type 2 diabetes, diet and exercise can help some people manage type 2 diabetes. If lifestyle changes aren't enough to lower the blood sugar, they need to take medication.

These blood tests are used to diagnose prediabetes and diabetes. The fasting plasma glucose (FPG) test measures blood sugar after the patient fasted for 8 hours. The A1C test provides a snapshot of the blood sugar levels over the previous 3 months. To diagnose gestational diabetes, the doctor will test blood sugar levels between the 24th and 28th weeks of pregnancy. During the glucose challenge test, blood sugar is checked an hour after patients drink a sugary liquid. During the 3-hour glucose tolerance test, blood sugar is checked after you fast overnight and then drink a sugary liquid.

Pathophysiology References (2) (APA):

Capriotti, Theresa M. and Frizzell, Joan Parker, "Pathophysiology: Introductory Concepts and Clinical Perspectives" (2016). *Faculty Bookshelf 75.*

Pamela, Swearingen L. and Jacqueline, Wright D, "All-in-One Nursing Care Planning Resource" (2019). *Faculty Bookshelf 75.*

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	4.10 – 5.7		5.26	
Hgb	12.0 – 20.0	15.1	15.4	
Hct	37% - 51%	46.7	45.2	
Platelets	140 – 400	332	276	
WBC	4.0 – 11.0	7.2	7.3	
Neutrophils				
Lymphocytes				
Monocytes				
Eosinophils				
Bands				

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	135	136	
K+	3.5 – 5.1	3.9	3.6	
Cl-	98 – 107	101	105	
CO2	21 – 32	28	26	
Glucose	60 – 99	231	257	History of diabetes type I
BUN	7 – 18	10	5	Dehydration associated with diabetes
Creatinine	0.70 – 1.3	0.71	0.51	

Albumin	**3.4 – 8.0**			
Calcium	**8.5 – 10.1**	**8.2**	**10**	
Mag	**1.6 – 2.6**			
Phosphate				
Bilirubin				
Alk Phos				

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				
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
Urine Culture				
Blood Culture				
Sputum Culture				
Stool Culture				

Lab Correlations Reference (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). Mosby's diagnostic and laboratory test reference. St. Louis, MO: Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

XR Chest Single View: Frontal chest exam was done. Heart size is normal. No signs of pulmonary edema or acute infiltrates.

CT Abdomen Pelvis: Liver: no mass

Gallbladder & bile ducts: no calcified stones, no ductal dilation

Pancreas: no enlargement

Spleen: no splenomegaly

Adrenal: no mass

Stomach & bowel: no obstruction

Pelvis: no enlarge lymph nodes

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

Medications (5 required)

Brand/ Generic	**Insulin glargine/Lantus**	**Insulin lispro/Humalog**	**Metoclopramide /Reglan**	**Pantoprazole/ protonix**	**Tramadol/ ultram**
Dose	**10units**	**3-15 units**	**10mg**	**40mg**	**50-100mg**
Frequency	**nightly**	**4 times daily before meals**	**Every 8 hours**	**daily**	**Every 6 hours**
Route	**subcutaneous**	**subcutaneous**	**intravenous**	**intravenous**	**oral**
Classification	**antidiabetic**	**antidiabetic**	**antiemetic**	**Antiulcer**	**Opioid agonist**
Mechanism of Action	**Stimulating peripheral glucose uptake, and inhibit glucose production**	**Stimulating peripheral glucose uptake, and inhibit glucose production**	**Antagonize the inhibitory effect of dopamine on GI smooth muscle**	**Interfere with gastric acid secretion**	**Blind mu receptor**
Reason Client Taking	**Improve glycemic control in patient with diabetes mellitus.**	**Improve glycemic control in patient with diabetes mellitus.**	**Treat diabetic gastroparesis**	**Treat gastroesophageal disease**	**Reduce pain**
Contraindications (2)	**Chronic lung disease**	**Chronic lung disease**	**butyrophenones**	**Hypersensitive to pantoprazole**	**Severe asthma**
Side Effects/ Adverse Reactions (2)	**confusion, dizziness**	**confusion, dizziness**	**Anxiety, depression**	**Confusion, anziety**	**Fatigue, hot flash**

Medications Reference (APA):

Institute for Safe Medication Practice: ISMP Medication Safety Alert. http://www.ismp.org/.

Jones & Barlett Learning. (2020). 2020 Nurse's Drug Handbook. Burlington, MA

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	**Alerted and oriented to person, place, time** **No acute physical distress**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	**Skin is pink, warm, and dry, no rashes, bruise, or lesions on exposed skin** **No palpable cervical or supraclavicular adenopathy bilaterally** **Cap refill is less than 3 seconds**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	**Head atraumatic and normocephalic** **Neck supple without goiter or tracheal deviation** **Pupils equal bilaterally, no icterus, conjunctival exudate bilaterally** **No ear discharge, no facial swelling, no external otitis/rhinitis/pharyngitis/oral thrush** **No pain or visual disturbance**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒**	**Clear S1&S2 sound, regular rhythm, no murmurs, gallops, or rubs** **No chest pain** **Pulses are palpable** **No edema** **No cyanosis**

Edema Y ☐ N ☒ **Location of Edema:**	
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Equal air entry bilaterally, clear to auscultation bilaterally** **No shortness of breath** **No chest tightness** **No cough, choking**
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM: 10/27/2020** **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, nontender, normal bowel sounds, no hepatosplenomegaly** **No diarrhea.** **Nausea and vomiting**
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Small amount of urine** **Urine is dark yellow, no ordor**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☒ N☐**	**Negative for myalgias, joint swelling, and arthralgias** **Independent** **No edema, no cyanosis**

Fall Score: **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **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:**	**Alert, oriented** **Move 4 extremities spontaneously and symmetrically** **No focal weakness, cranial nerves normal**
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):**	**Not Religious** **English only** **Live with and have a good relationship with sister**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
7:50 a.m.	**89**	**107/71**	**16**	**98.1 (oral)**	**96% Room air**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
	No pain				

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
2041.7 (I.V)	**50**

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. Dehydration	**Related to diabetes as evidence by small amount of urine, cracked lips**	**1.Encourage clear fluid every two hours, encourage movement and bathroom use** **2. Keep monitoring the patient's condition and blood sugar.**	**Goal not met as the patient's output is still low**
2. Risk of infection in the GI	**Related to diabetes as evidence by showing symptoms such as nausea, vomiting, fatigue**	**1. Provide better diet which high fiber** **2.Limit the sugar intake like candies, chocolate**	**Goal met as the patient has not experienced nausea or vomit for 2 days**

Other References (APA):

Concept Map (20 Points):

Subjective Data

The patient complain of “always tired”, “can’t breathe”, “feel like vomiting”, “sharp pain in one side”

Nursing Diagnosis/Outcomes

Dehydration related to diabetes as evidence by small amount of urine, cracked lips

Risk of infection in the GI related to diabetes as evidence by showing symptoms such as nausea, vomiting, fatigue

Objective Data

Chief Complaint: Diabetic Ketoacidosis, Diabetes type I, Gastroparesis
Primary Diagnosis: Diabetic Ketoacidosis associated with type I
Pulse: 89
BP: 107/71
Respiratory: 16
Temperature: 98.1
O2: 96%

Patient Information

A 21-year-old female had history of Diabetes type I at age 16 and had struggled with gastroparesis for many years. She was shopping when she started to show symptoms of uncontrolled nausea and vomiting. Patient denied fever, chills, diarrhea, or symptoms of GI bleeding. Patient had an insulin pump which she had not used for a few days...

Nursing Interventions

1.Encourage clear fluid every two hours, encourage movement and bathroom use

2. Keep monitoring the patient’s condition and blood sugar.
3. Provide better diet which high fiber

4. Limit the sugar intake like candies, chocolate