

N311 Care Plan 3

Tyranny Davis

Lakeview College of Nursing

N311: Foundations of Professional Practice

Professor Michele Hartke

October 9, 2023

Demographics (5 points)

Date of Admission 09/28/2023	Client Initials J.E.	Age 56	Gender F
Race/Ethnicity White/Caucasian	Occupation Retired Veteran	Marital Status Single	Allergies Divalproex, Lurasidone, Duloxetine
Code Status FULL	Height 5'3"	Weight 201 lbs	

Medical History (5 Points)

Past Medical History: Generalized Anxiety Disorder, Arthritis, Depression, Diabetes Mellitus Type 1, Gastroesophageal Reflux Disease, Glaucoma, Hypertension, Kidney Disease, Kyphosis, Neuromuscular Disorder, Post-Traumatic Stress Disorder, Spondylosis, Cerebral Stroke (2013), Hyperglycemia, Hyponatremia, Hyperlipidemia.

Past Surgical History: No surgical history reported.

Family History: Denies family history verbally and on chart.

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

Previously a smoker at 1 pack per day for 10 years but quit in 1993. Denies current use of tobacco or alcohol, confirms infrequent use of marijuana, but not in the last several months.

Admission Assessment

Chief Complaint (2 points): Altered Mental Status secondary to Hyperglycemia

History of Present Illness – OLD CARTS (10 points): Altered mental status began on September 27th and worsened in the following days. Location of concern is the brain. The issue has been going on for 10 days prior to admission on September 18 when the client reported removing their insulin pump and not replacing it. The characteristics are altered sense of reality with suicidal thoughts, and is considered severe as the client lost sense of time and reported “a

neighbor found me on the floor after not hearing from me with my blood sugar in the 500s.” Failure to monitor blood glucose and wearing insulin pump exacerbate the altered mental status. Associated manifestations are poor memory and increased depression. Relieving factor was proper managing of diabetes, as when blood sugar levels were regulated, mental status returned to normal for client. Client sees primary care physician and psychiatrist for these conditions, and takes medications to regulate blood sugar and manage anxiety and depression.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Labile Blood Glucose

Secondary Diagnosis (if applicable): Hyperglycemia

Pathophysiology

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

Type 1 Diabetes Mellitus is a condition in which a client must use supplemental insulin in the form of injections or a pump to control their blood sugar as a result of the body’s inability to recognize self and attacking beta cells in the pancreas that secrete insulin (Lucier & Weinstock, 2023). Labile blood glucose can also be called “brittle diabetes” and refers to the tendency of the blood glucose in a diabetic client to fluctuate rapidly between highs and lows (NORD, 2022). Finding a scholarly article about labile blood glucose has proven difficult, and that is because it is an interpretation of the dysregulation of blood glucose in a client, rather than a diagnosis (Hirsh & Gaudiani, 2020).

Hyperglycemia is the elevation of one’s blood glucose levels. Everyone can experience hyperglycemia, but for a person with diabetes, it becomes more of an issue because their body cannot regulate or release the insulin needed to reduce the blood glucose to a more stable level. With Type 1 diabetes, excessive glucose in the blood for a prolonged period of time can impair

the regulation of other components in the body, such as lipids, and change the structure of thereby function of proteins (Giri et al., 2018). At a cellular level, many of the body systems and processes can be disrupted and altered by excess glucose in the blood and this can lead to complications such as cancers, inflammation, infection, and more (Giri et al., 2018). With the excessive glucose in the environment, cells lose or change their functions and pathways (Giri et al., 2018). One particular area of concern is the cardiovascular system, as the abnormal regulation of lipids can lead to narrowing of blood vessels, which poses a risk for clots and diseases (Giri et al., 2018).

Symptoms of hyperglycemia include abnormal urination, fatigue, slow healing, and excessive need to consume food and drink (Cleveland Clinic, n.d.). One way to test for hyperglycemia is to have a client avoid food and drink for a certain amount of time and then take their blood glucose measurement in the form of a blood test. If the test reveals over 100 mg/dL, this is considered hyperglycemia (Cervoni, 2023). There are other similar blood tests such as fructosamine and A1C that evaluate blood glucose levels over a certain amount of time (Cervoni, 2023).

Pathophysiology References (2) (APA):

Cervoni, B. (2023, January 30). *How is hyperglycemia diagnosed?*. Verywell Health.

<https://www.verywellhealth.com/how-hyperglycemia-is-diagnosed-4163423>

Cleveland Clinic. (n.d.). *Hyperglycemia*. <https://my.clevelandclinic.org/health/diseases/9815-hyperglycemia-high-blood-sugar>

Giri, B., Dey, S., Das, T., Sarkar, M., Banerjee, J., & Dash, S. K. (2018). Chronic hyperglycemia mediated physiological alteration and metabolic distortion leads to organ dysfunction,

infection, cancer progression and other pathophysiological consequences: An update on glucose toxicity. *Biomedicine & Pharmacotherapy*, 107, 306–328.

<https://doi.org/10.1016/j.biopha.2018.07.157>

Hirsch, I. B., & Gaudiani, L. M. (2020). A new look at brittle diabetes. *Journal of Diabetes and Its Complications*, 35(1), 107646. <https://doi.org/10.1016/j.jdiacomp.2020.107646>

Lucier, J., & Weinstock, R. S. (2023). Type 1 Diabetes. In *StatPearls*. StatPearls Publishing.

NORD. *Gard rare disease information - brittle diabetes*. National Organization for Rare

Disorders. (2022, June 16). <https://rarediseases.org/gard-rare-disease/brittle-diabetes/>

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	3.8-5.30	4.2	3.9	
Hgb	12.0-15.8	14.7	14.6	
Hct	36.0-47.0%	43.4	41.2	
Platelets	140-440	365	274	
WBC	4.0-12.0	7.9	5.2	
Neutrophils	47-73%	46.4	54.4	Clients with Diabetes Mellitus, especially when they have chronic fluctuations in blood glucose, experience abnormal regulation of neutrophils (Dowey et al., 2021).
Lymphocytes	18.0-42.0%	27.1	29.7	
Monocytes	4.0-12.0%	8.6	9.0	
Eosinophils	0-5.0%	3.3	2.1	
Bands	0-3%	2.4	2.6	

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	132	139	High blood glucose levels cause fluid fluctuations within the body to adapt to the environment and hyponatremia is a common result in clients with diabetes mellitus (Eshetu et al., 2023).
K+	3.5-5.1	3.7	3.8	
Cl-	98-107	93	102	Electrolyte imbalances are common with clients with diabetes and chloride fluctuations can mirror sodium levels (Khan et al., 2019).
CO2	22-30	26	25	
Glucose	70-99	382	176	Labile blood glucose
BUN	10-20	25	24	Client has very high blood glucose level so kidneys are bombarded with filtering responsibilities and working slower, leaving BUN levels elevated (Zhong et al., 2023).
Creatinine	0.6-1.0	1.10	1.09	
Albumin	3.5-5.0	3.0	4.0	
Calcium	8.7-10.5	9.3	9.7	
Mag	1.6-2.6	2.0	1.9	
Phosphate	2.5-4.5	3.5	3.6	
Bilirubin	0.2-1.2	0.2	0.5	
Alk Phos	40-150	66	93	

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 and clear	Yellow and Clear	Yellow and clear	
pH	5.5-7.5	7.0	7.1	
Specific Gravity	1.005-1.020	1.015	1.007	
Glucose	Negative	3+	1+	Glucose in the urine is indicative of Diabetes Mellitus and is a result of the body excreting excess glucose in this client's case (UCSF Health, 2020).
Protein	Negative	Negative	Negative	
Ketones	Negative	2+	Negative	Abnormal levels of lipids within the body can cause ketones to form and be excreted in the urine, like this client's hyperlipidemia (Kim et al., 2020).
WBC	0-5	Negative	Negative	
RBC	0-2	Negative	Negative	
Leukoesterase	Negative	Negative	Negative	

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	Negative	Negative	
Blood Culture	No growth	No growth	Not retested	
Sputum Culture	Negative	Test not needed	Test not needed	
Stool Culture	No growth	Insufficient output	Insufficient output	

Lab Correlations Reference (1) (APA):

- Dowey, R., Iqbal, A., Heller, S. R., Sabroe, I., & Prince, L. R. (2021). A bittersweet response to infection in diabetes; targeting neutrophils to modify inflammation and improve host immunity. *Frontiers in Immunology*, *12*. <https://doi.org/10.3389/fimmu.2021.678771>
- Eshetu, B., Worede, A., Fentie, A., Chane, E., Fetene, G., Wondifraw, H., Shimelis, M., Girma, M., Hadgu, R., Demeke, K., & Fasil, A. (2023). Assessment of electrolyte imbalance and associated factors among adult diabetic patients attending the University of Gondar Comprehensive Specialized Hospital, Ethiopia: A comparative cross-sectional study. *Diabetes, Metabolic Syndrome and Obesity, Volume 16*, 1207–1220. <https://doi.org/10.2147/dms0.s404788>
- Kim, B.-R., Seo, J. W., Kim, S. M., Kim, K.-N., & Joo, N.-S. (2020). The presence of urinary ketones according to metabolic status and Obesity. *Journal of Korean Medical Science*, *35*(31), e273. <https://doi.org/10.3346/jkms.2020.35.e273>
- Kim, B.-R., Seo, J. W., Kim, S. M., Kim, K.-N., & Joo, N.-S. (2020). The presence of urinary ketones according to metabolic status and Obesity. *Journal of Korean Medical Science*, *35*(31), e273. <https://doi.org/10.3346/jkms.2020.35.e273>
- UCSF Health. (2020, October 6). *Glucose - urine*. [ucsfhealth.org](https://www.ucsfhealth.org). <https://www.ucsfhealth.org/medical-tests/glucose-urine-test>
- Zhong, J.-B., Yao, Y.-F., Zeng, G.-Q., Zhang, Y., Ye, B.-K., Dou, X.-Y., & Cai, L. (2023). A closer association between blood urea nitrogen and the probability of diabetic retinopathy in patients with shorter type 2 diabetes duration. *Scientific Reports*, *13*(1). <https://doi.org/10.1038/s41598-023-35653-z>

Diagnostic Imaging

All Other Diagnostic Tests (10 points): Gastric Emptying Scintigraphy (GES). This test involves the patient consuming a specific meal and undergoing imaging at predetermined intervals to evaluate how much of the meal remains in the stomach in increments (Banks et al., 2023). For this client, this imaging will help determine whether there is a delay in their gastric movement which could cause the difficulty in regulating blood glucose level (Banks et al., 2023).

Diagnostic Imaging Reference (1) (APA):

Banks, K. P., Syed, K., Parekh, M., & McWhorter, N. (2023, January). *Gastric emptying scan*.

National Library of Medicine. <https://www.ncbi.nlm.nih.gov/books/NBK531503/>

Assessment

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

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required.

The student and instructor may complete these assessments together.

<p>GENERAL:</p> <p>Alertness:</p> <p>Orientation:</p> <p>Distress:</p> <p>Overall appearance:</p>	<p>Client is alert and oriented to person, place, time, and situation. No signs of acute distress noted. Overall appeared well-groomed. Stated “my hair is crazy because we washed it yesterday,” but declined a hairbrush.</p>
<p>INTEGUMENTARY:</p> <p>Skin color: Fair</p> <p>Character: Dry</p> <p>Temperature: Warm</p> <p>Turgor: No tenting.</p>	<p>Skin is fair in color, warm in temperature, and dry but well moisturized. No rashes, bumps, or lesions detected on skin. Hair was full thickness with no signs of rashes, bumps, or deformities. Skin turgor normal with no tenting. Nails are well groomed and without signs of jaundice, cyanosis, or clubbing. Capillary refill of nails and toenails was less than 2 seconds bilaterally. Client is independent, has a Braden score</p>

<p>Rashes: None.</p> <p>Bruises: Bruise on left shin.</p> <p>Wounds: None.</p> <p>Braden Score: 20</p> <p>Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Type:</p>	<p>of 20 and is of low risk for falls.</p>
<p>HEENT:</p> <p>Head/Neck: Round, appropriate size, symmetric.</p> <p>Ears: Symmetric, dry, appropriate color, no buildup of cerumen. Hearing intact based on conversations.</p> <p>Eyes: Symmetrical, green/blue in color, pupils round and equal.</p> <p>Nose: No signs of deviated septum, nares dark pink and moist bilaterally, no signs of bumps or lesions.</p> <p>Teeth: Well groomed, intact, no signs of wounds or deterioration or odor.</p>	<p>Nose is symmetrical on face and appropriate color for race. No signs of bumps or lesions. Bilateral nares are dark pink and moist, septum is midline. Light tenderness reported on maxillary sinus palpation.</p>
<p>CARDIOVASCULAR:</p> <p>Heart sounds: S1 and S2 auscultated</p> <p>S1, S2, S3, S4, murmur etc.</p> <p>Cardiac rhythm (if applicable): Regular</p> <p>Peripheral Pulses: 2+</p> <p>Capillary refill: Less than 3 seconds</p> <p>Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Location of Edema: None.</p>	<p>Client had no signs of edema. Auscultated S1 and S2 with no other heart sounds. Rhythm was regular and peripheral pulses were 2+ bilaterally. Capillary refill on hands and feet were less than 3 seconds bilaterally.</p>
<p>RESPIRATORY:</p> <p>Accessory muscle use: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	<p>Client appeared in no signs of acute distress. Breathing was regular and with ease. Did not auscultate breath sounds as that has not yet been reviewed.</p>

Breath Sounds: Location, character	
<p>GASTROINTESTINAL:</p> <p>Diet at home: Regular</p> <p>Current Diet: Regular</p> <p>Height: 5'3"</p> <p>Weight: 201 lbs</p> <p>Auscultation Bowel sounds: Not within of scope of practice.</p> <p>Last BM: Loose on 10/01</p> <p>Palpation: Pain, Mass etc.: Slight discomfort on palpation in upper middle quadrant.</p> <p>Inspection:</p> <p>Distention: None.</p> <p>Incisions: None.</p> <p>Scars: None.</p> <p>Drains: None.</p> <p>Wounds: None.</p> <p>Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Size:</p> <p>Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Type:</p>	<p>Client on no restrictions in diet in hospital or at home. Client reported having a loose bowel movement on 10/01 and grimaced when palpating upper middle quadrant. No wounds, scars, or distention noted.</p>
<p>GENITOURINARY:</p> <p>Color: Yellow</p> <p>Character: Clear, non-odorous</p> <p>Quantity of urine: 600 mL during shift</p> <p>Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	<p>Urine is yellow, clear, and non-odorous. Client expelled 600 mL throughout shift. Client reported no pain or trouble urinating. Genitalia was not inspected as that is out of my scope of practice.</p>

<p>Inspection of genitals: Not within scope of practice</p> <p>Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Type:</p> <p>Size:</p>	
<p>MUSCULOSKELETAL:</p> <p>Neurovascular status: Not in scope of practice.</p> <p>ROM: Full</p> <p>Supportive devices: None</p> <p>Strength: Expected strength bilaterally</p> <p>ADL Assistance: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p> <p>Fall Score: Low Risk</p> <p>Activity/Mobility Status: Standby assist.</p> <p>Independent (up ad lib) X <input type="checkbox"/></p> <p>Needs assistance with equipment <input type="checkbox"/></p> <p>Needs support to stand and walk <input type="checkbox"/></p>	<p>Client shows minimal impairments in activity, mobility, and range of motion. Client does not require assistive equipment or personnel for ambulating. Client is up ambulating in the hallway several times a day and is of low fall risk.</p>
<p>NEUROLOGICAL:</p> <p>MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p> <p>PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p> <p>Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/></p> <p>Orientation: Oriented to person, place, time, and situation</p> <p>Mental Status: Improved</p> <p>Speech: Clear and intact</p> <p>Sensory: Appropriate for age</p> <p>LOC: Fully conscious as of 0800</p>	<p>Client is neurologically intact. Alert and oriented x4, full and equal strength, and has improved mental status from admission. Client speaks clearly, and sensibly and is able to make decisions regarding their care.</p>

<p>PSYCHOSOCIAL/CULTURAL:</p> <p>Coping method(s):</p> <p>Developmental level:</p> <p>Religion & what it means to pt.:</p> <p>Personal/Family Data (Think about home environment, family structure, and available family support):</p>	<p>Client reports use of marijuana as a coping mechanism, as well as talk therapy regularly with a psychiatrist and use of antidepressants. Client communicates and interacts with appropriate developmental level for age. Client states they are a Christian but “not in your face about it.” Client reports having a daughter who lives in Florida and is not close with, also stated having a neighbor as Power of Attorney. Client lacks strong support system and structure in personal life.</p>
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Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	72	102/65	18	96.3 F (orally)	98%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	0 on 0-10 numeric	N/A	N/A	N/A	N/A

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
900mL water	600 mL urine

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
<ul style="list-style-type: none"> Include full nursing diagnosis with 	<ul style="list-style-type: none"> Explain why the nursing 			<ul style="list-style-type: none"> How did the client/family respond to the

<p>“related to” and “as evidenced by” components</p> <ul style="list-style-type: none"> Listed in order by priority – highest priority to lowest priority pertinent to this client 	<p>diagnosis was chosen</p>			<p>nurse’s actions?</p> <ul style="list-style-type: none"> Client response, status of goals and outcomes, modifications to plan.
<p>1. Impaired mood regulation related to anxiety and recurrent thoughts of suicide as evidenced by sad affect, withdrawal, and the client saying “my daughter isn’t coming anyway, don’t bother her.”</p>	<p>The client showed many signs of intense sadness and hopelessness. They laid in a dark room with minimal interaction with others and monotone affect.</p>	<p>1. Evaluate and guide client toward mental health services that accurately relate to current health status (Phelps, 2023).</p> <p>2. Encourage and help client to make a plan to increase feeling of value and worth (Phelps, 2023).</p>	<p>1. Client recognizes the flawed plan of removing the insulin pump and the importance of the device to their well-being.</p>	<p>Client came up with some coping strategies and an accountability system for managing their diabetes.</p>
<p>2. Unstable blood glucose level risk associated with inadequate diabetes self-management as evidenced</p>	<p>The client’s mood and other symptoms returned to baseline when blood glucose was stabilized when blood glucose was tracked in the</p>	<p>1. Monitor and evaluate client’s dietary choices to gauge where adjustments might need to be made to regulate glucose levels (Phelps,</p>	<p>1. Client verbally demonstrates an understanding and commitment to monitoring blood glucose levels upon discharge (Phelps, 2023).</p>	<p>Client verbalized and demonstrates they know which foods to indulge and avoid and a commitment to wearing their insulin pump.</p>

<p>by labile blood glucose levels, mood swings, and client stating “I took off my insulin pump 10 days ago and didn’t put it back on” (Phelps, 2023).</p>	<p>hospital and insulin was administered appropriately.</p>	<p>2023). 2. Reinforce prior teachings about the importance of monitoring and treating hyper- and hypoglycemia (Phelps, 2023).</p>		
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Other References (APA):

Phelps, L. L. (2023). Impaired Mood Regulation. In *Nursing diagnosis reference manual* (12th ed., pp. 55-57, 419–422). essay, Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

Client reports no pain or reason to be in the hospital. Client admits removing insulin pump 10 days prior to admission and not putting it back on. Client reports no current suicidal ideation. Client stated “a neighbor found me on the floor after not hearing from me with my blood sugar in the 500s.” Client agrees to be transferred to outpatient facility and that monitoring blood sugar helps mood. Client reports “my crazy hair is from getting it washed yesterday” but declined a comb. Client requested and received additional blanket.

Objective Data

Client is alert and oriented to person, place, situation, and time. Appears moderately well groomed with hair that is disheveled. No signs of acute distress. Temporal temperature is 96.3, heart rate is 72, respirations 18, blood pressure 102/65, O2 saturation 98%.

Client Information

J.E. is a 56-year-old female who is a FULL code and is admitted for unregulated blood glucose levels. Client has Type 1 Diabetes Mellitus.

Nursing Diagnosis/Outcomes

1. Impaired mood regulation related to anxiety and recurrent thoughts of suicide as evidenced by sad affect, withdrawal, and the client saying “my daughter isn’t coming anyway, don’t bother her” (Phelps, 2023).
2. Unstable blood glucose level risk associated with inadequate diabetes self-management as evidenced by labile blood glucose levels, mood swings, and client stating “I took off my insulin pump 10 days ago and didn’t put it back on” (Phelps, 2023).

Nursing Interventions

1. Evaluate and guide client toward mental health services that accurately relate to current health status (Phelps, 2023).
2. Encourage and help client to make a plan to increase feeling of value and worth (Phelps, 2023).
3. Monitor and evaluate client’s dietary choices to gauge where adjustments might need to be made to regulate glucose levels (Phelps, 2023).
4. Reinforce prior teachings about the importance of monitoring and treating hyper- and hypoglycemia (Phelps, 2023).

