N311 Care Plan #1

Lakeview College of Nursing

Riley Black

Demographics (5 points)

Date of Admission 2/24/2021	**Patient Initials** K. A. J.	**Age** 11/03/1958 (62)	**Gender** Male
Race/Ethnicity White	**Occupation** Machinist	**Marital Status** Married	**Allergies** No known allergies
Code Status Full Code	**Height** 5'10" (177.8 cm)	**Weight** 110.5 kg (243 lb 9.7 oz)	

Medical History (5 Points)

Past Medical History: Colorectal adenocarcinoma (1977, 2000), Jejunal adenocarcinoma (2012), Malignant melanoma on posterior side of left shoulder (2009), Metastatic astrocytoma (12/07/2020), T2DM (2018)

Past Surgical History: Craniotomy of metastatic astrocytoma (12/08/2020), Tonsillectomy (1975), Hemicolectomy (1977, 1980), Wide excision for malignant melanoma (2009), Ileostomy, Jejunal resection (2012)

Family History: Mother – CA (deceased), Sister – CA (deceased), Maternal Aunt – CA (deceased), Paternal history unknown

Social History (tobacco/alcohol/drugs): Patient stated, "I used to smoke a lot, but I quit about 8 years ago." Pt could not recall how many packs per day. Patient denied consuming alcohol or using recreational drugs.

Admission Assessment

Chief Complaint (2 points): Patient stated, "I feel like my body is restricting me because it's not letting me do the things I want to do."

History of present Illness (10 points): On February 15, 2021 the patient presented to OSF Sacred Heart Medical Center via ambulance and had reportedly lost consciousness. Patient describes the event stating, "I was walking through my house to the dining room and my wife

noticed I was walking funny. She was walking behind me and caught me as I fell. She tried to get me up, but she couldn't on her own. My daughter came to try to help get me up, but they could not, so they called the ambulance." Patient denied hitting his head and claims to believe he did not lose consciousness. The cause for the loss of consciousness is unknown, but patient is still recovering from a craniotomy that occurred on 12/08/2020. Patient was transferred from OSF SHMC in Danville to OSF Heart of Mary Medical Center in Urbana on 02/24/2021.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Loss of consciousness

Secondary Diagnosis (if applicable): Diabetes mellitus and metastasis of cancer

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

Diabetes mellitus is the condition in which those affected suffer from chronic hyperglycemia. It currently is affecting 8.5% of the world's population, and that percentage is increasing at a rapid rate (Swearingen & Wright, 2019). There are several types of DM, but the two most common are Type 1 and Type 2 DM. Around 90-95% of all cases of the disease are T2DM, which is what my patient has been diagnosed with (Swearingen & Wright 2020).

Two major risk factors for T2DM are obesity and a sedentary lifestyle. T2DM develops gradually as cellular insulin resistance slowly increases over time (Capriotti, 2020). This means that the tissues in the body stop becoming affected by the insulin, limiting the amount of sugar that can be removed from the blood. Capriotti explains how insulin works saying, "Insulin causes rapid uptake, storage, and use of glucose by almost all tissues of the body, particularly muscle, adipose tissue, and liver cells" (Capriotti, 2020, p. 595). When the body tissues are more resistant to the insulin, the pancreas has to work harder to produce higher than normal levels to try to

maintain its intended effect, causing the pancreas to become exhausted and insufficient. This is why insulin is administrated as needed to patients like mine.

If patients with T2DM do not receive insulin, the glucose cannot reach the cells that need it because it stays in the bloodstream, leading to hyperglycemia. If hyperglycemia goes untreated for too long, it can result in hyperglycemic hyperosmolar state. This may cause severe dehydration, hypovolemic shock, severe hyperglycemia, altered mental status, stroke-like symptoms, and many other complications (Swearingen & Wright, 2019). Many of these listed appear to be possible explanations as to why my patient had a fall. His lab values that show low RBC, low Hgb, and low Hct demonstrate that the patient could have been in a hypovolemic state. The loss of muscular strength and the wobbly walking that my patient's wife noticed that led to the fall may be described as stroke-like symptoms. His confused recollection of the event may have been caused by an altered mental status. All of these point to HHS.

Some signs and symptoms of chronic hyperglycemia related to T2DM include fatigue, weakness, overweight or obesity, paresthesia, mild dehydration, polyuria, polydipsia, polyphagia, and possible chronic inflammation. Diagnostic testing for T2DM include the fasting plasma glucose test (>126 mg/dL), oral glucose tolerance test (≥200 mg/dL), casual/random plasma glucose (≥180 mg/dL on at least two occasions), and hemoglobin A1C/glycosylated hemoglobin test (>6.5%) (Swearingen & Wright, 2019). My patient receives casual plasma glucose testing QID, but he is on medication to treat his T2DM, so his levels are typically below 180 mg/dL. There are also other tests that can be done, like urine testing for glucosuria or ketonuria, islet cell antibody testing, and C-peptide testing (Capriotti, 2020).

Treatments for T2DM include lifestyle changes, like dieting and exercising. It is important for patients to monitor their overall health, like their blood pressure, blood glucose,

and podiatric care. This prevents any further problems that are associated with T2DM. Insulin therapy is a major treatment plan as well. On top of insulin therapy, there are noninsulin agents that can be used to treat T2DM. My patient is taking Cymbalta and Eliquis to treat complications of T2DM, as well as monitoring his diet to maintain a healthy blood sugar level (Capriotti, 2020).

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F. A. Davis.

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: Medical-surgical, pediatric, maternity, and psychiatric mental health* (5th ed.). Elsevier Inc.

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	3.90-4.98	3.31	N/A	Patient has multiple CAs, which causes a decrease in RBC production. Patient has also undergone chemotherapy. Patient also has T2DM, which can cause anemia. Patient has low albumin levels, which may indicate malnourishment that can decrease levels of RBC.
Hgb	12.0-15.5	10.0	N/A	Patient has multiple CAs, which

				causes a decrease in RBC production. Patient has also undergone chemotherapy. Patient also has T2DM, which can cause anemia. Patient has low albumin levels, which may indicate malnourishment that can decrease levels of Hgb.
Hct	35-45	30.4	N/A	Patient has diabetes, which could have caused kidney damage. This leads to less production of erythropoietin. Patient has low albumin levels, which may indicate malnourishment that can decrease levels of Hct.
Platelets	140-400	130	N/A	Patient has undergone chemotherapy, which will reduce platelet count. Patient's diabetes may have led to anemia, which also decreases platelet count. Patient has low albumin levels, which may indicate malnourishment that can decrease levels of platelets.
WBC	4.0-9.0	4.30	N/A	
Neutrophils	40-70	59.7	N/A	
Lymphocytes	10-20	29.9	N/A	Patient has vertebral osteomyelitis, and infections increase the number of lymphocytes.
Monocytes	2-8	8.3	N/A	Patient has had many carcinomas and currently has osteomyelitis.
Eosinophils	N/A	1.5	N/A	
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-	135-145	139	N/A	
K+	3.5-5.1	3.9	N/A	
Cl-	98-107	112	N/A	Patient is receiving an IV of sodium chloride solution, which elevates

				levels of chloride.
CO2	22-29	21	N/A	Patient has diabetes, which can cause acidosis.
Glucose	70-99	87	177	Patient has T2DM, which causes high blood sugar.
BUN	6-20	10	N/A	
Creatinine	0.50-1.00	0.65	N/A	
Albumin	3.5-5.2	2.2	N/A	Patient may be malnourished, as this lowers albumin levels. Inflammation can also cause a decrease in albumin as in increases metabolic rate.
Calcium	8.4-10.5	8.4	N/A	
Mag	N/A	N/A	N/A	
Phosphate	N/A	N/A	N/A	
Bilirubin	0.0-1.2	0.4	N/A	
Alk Phos	35-105	86	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	N/A	N/A	N/A	
pH	N/A	N/A	N/A	
Specific Gravity	N/A	N/A	N/A	
Glucose	N/A	N/A	N/A	
Protein	N/A	N/A	N/A	
Ketones	N/A	N/A	N/A	
WBC	N/A	N/A	N/A	

RBC	N/A	N/A	N/A	
Leukoesterase	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	N/A	N/A	N/A	
Blood Culture	N/A	N/A	N/A	
Sputum Culture	N/A	N/A	N/A	
Stool Culture	N/A	N/A	N/A	

Lab Correlations Reference (APA):

van Leeuwen, A. M., & Bladh, M. L. (2015). *Comprehensive handbook of laboratory & diagnostic tests with nursing implications* (6th ed.). F. A. Davis

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

Patient took a complete blood count and a complete metabolic panel upon admission on 02/24/2021. Patient also receives Accucheck tests for blood glucose QID. Lab values for these tests are listed above. Patient completed a venous duplex that resulted in the findings of lower occluding thrombi bilaterally in femoral veins.

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

Medications (5 required)

Brand/Generic	**Methocarbamol** Robaxin	**Tramadol** Ultram	**Nafcillin** Nafcil	**Duloxetine** Cymbalta	**Apixaban** Eliquis
Dose	750 mg	50 mg	12 g in sodium chloride 0.9% in 500 mL	30 mg	5 mg
Frequency	QID	Q6H PRN	500 mg/hr	Daily	BID
Route	PO	PO	IV	PO	PO
Classification	Muscle relaxer	Opioid analgesic	Antibiotic	Antidepressant, neuropathic and musculoskeletal pain reliever	Anticoagulant
Mechanism of Action	May depress NCS, which leads to sedation and reduced skeletal muscle spasms. Pain perception is also altered.	Binds with mu receptors and inhibits the reuptake of norepinephrine and serotonin, which may account for tramadol's analgesic effect.	Binds to certain penicillin-binding proteins in bacterial cell walls, thereby inhibiting the final stage of bacterial cell wall synthesis. The result is cell lysis.	Inhibits dopamine, neuronal serotonin, and norepinephrine reuptake to potentiate noradrengeric and serotonergic activity in the CNS. This may elevate mood and inhibit pain signals stemming from peripheral nerves	Inhibits free and clot-bound factor Xa and prothrombinase activity. Indirectly inhibits platelet aggregation induced by thrombin. Decreases thrombin generation and thrombus developme

				adversely affected by chronically elevated serum glucose level.	nt.
Reason Client Taking	To promote ROM in therapy	To alleviate pain r/t physical therapy and vertebral osteomyelitis	To treat vertebral osteomyelitis	To treat neuropathic symptoms of diabetes mellitus	To prevent formation of additional occluding thrombi in lower extremities
Contraindications (2)	Hypersensitivity to methocarbamol or its components, pregnancy	Known or suspected GI obstruction, children under the age of 12	Hypersensitivity to nafcillin, hypersensitivity to penicillin	Cirrhosis, severe renal impairment	Active pathological bleeding, hypersensitivity to apixaban or its components
Side Effects/Adverse Reactions (2)	Seizures, bradycardia	Seizures, suicidal ideations	Seizures, acute kidney injury	Acute pancreatitis, MI	Hemorrhagic stroke, excessive bleeding

Medications Reference (APA):

2021 Nurse's drug handbook (20th ed.). (2021). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	A & O x4 No acute distress noted. Patient appeared to not have proper hygiene as skin was flaky, nails were overgrown and discolored, and face was not well groomed.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin color usual for ethnicity. Warm to touch and elastic. Many venous and arterial ulcers noted on lower extremities. Severe discoloration bilaterally in lower extremities. Generalized flakiness from head to toe. Discoloration in LLQ from injections. Ecchymosis on right upper extremity from multiple IVs. Braden score 17 with points being taken away for sensory perception, activity, mobility, and friction and shear.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical. No tracheal deviation. Lymph nodes nonpalpable. Movement of thyroid gland was normal upon palpation. No abnormal findings regarding vision or EOM. Conjunctiva appeared pink and moist. No drainage reported from ears or nose. No hearing impairment noted. Tongue and gums appeared pink and moist. No tooth decay noted.
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:**	S1 and S2 sounds noted without any gallop, murmur, or rub observed. Peripheral pulses 3+ bilaterally in upper extremities and 2+ in lower extremities. Capillary refill under three seconds. No JVD. Non-pitting edema noted in lower extremities bilaterally.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Vesicular sounds heard evenly in 6 anterior and 8 posterior locations. Breathing was unlabored and regular rate.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:**	Pt stated, “I try to follow a diabetic diet.” Current diet is high protein. 5’10” 243 lbs 9.7 oz Hyperactive bowel sounds in all four quadrants.

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:**	Pt has ileostomy pouch in RLQ. Severe herniation in RLQ and minor herniation in RUQ. Both herniations are without pain and have been visible for years. No pain upon palpation. Two scars noted to left of umbilicus. Umbilicus deviated into RLQ. Purple discoloration in LLQ r/t multiple injection.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Patient voided twice in urinal during the day while I was out of the room. I emptied both times and urine was dark yellow but clear. Pt reported no pain during urination. Both urinations were 150 mL.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 95** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☒** **Needs support to stand and walk☒**	Pt was warm to touch and all extremities showing equal strength. Active ROM against some resistance as normal in upper extremities, but PROM was necessary for lower extremities. Strength of upper extremities is 4/5 and of lower extremities is 2/5. Pt is one assist with gait belt, walker, and wheelchair. Pt does not sit up in chair d/t lower back pain. Pt performs ADLs only needing assistance with ambulation. High fall risk with score at 95.
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:**	Oriented to person, place, and time. Lower extremities show weakness bilaterally. Patient does not have enough strength to move lower extremities well. Speech is clear. Patient is alert.

Sensory: **LOC:**	
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):**	Patient shows signs of frustration stating "I feel like my body is restricting me. I plan to be home by the eighth (030/08/2021)." Patient claims to have a good support system in his wife, daughter, and son, who all live very close to where he lives. His wife lives with him. Patient claims to be unaffiliated with religion. Pt has high school diploma.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0735	65 LA	151/82 LA	12	97.8 temporal	98% RA

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1120	Numerical	Lower back	2/10	Achy pain while resting/ escalates to sharp pain with movement	Pt bed elevated to Semi-Fowler's position. Tramadol given Q6H PRN

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
100% breakfast – cup of yogurt and two pancakes with syrup 120 mL apple juice 360 mL water	150 mL urine at 0800 150 mL urine at 1100 Ileostomy bag half full at 1130

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. Impaired physical mobility	r/t general weakness AEB "I feel restricted by my body because I have no strength in my limbs"	**1.** PROM exercises 2x per shift **2.** One person assist with transfer or ambulation with gait belt and walker	**1.** Goal met. Patient did well with physical therapy PROM exercises. **2.** Goal met. Assisted patient moving from wheelchair to bed with gait belt and walker.
2. Ineffective health maintenance	r/t T2DM and multiple CAs AEB fluctuating blood sugar results, metastasized CA from medical records, and diabetic neuropathic ulcers on lower extremities and feet.	1. Blood sugar monitoring QID and provide insulin according to results 2.Educate the patient for diet and maintaining consistent sugar and maintaining proper skin care	Goal partially met. Blood sugar was checked at 1100 at 177 and reported to the nurse, but I did not observe insulin administration. Goal not met. Ran out of time at the clinical site and patient was in therapy for a majority of the morning.

Overall APA format (5 points):

Concept Map (20 Points):

Subjective Data

Pt stated, "I feel like my body is restricting me." Pt described lower back pain as an achy 2/10 at rest and a sharp pain on exertion listed at a 4/10.

Nursing Diagnosis/Outcomes

Impaired physical mobility r/t general weakness AEB "I feel restricted by my body because I have no strength in my limbs."
Outcome: Pt will regain the strength in his legs to allow him to ambulate as he normally would.
Ineffective health maintenance r/t T2DM and multiple CAs AEB fluctuating blood sugar results, metastasized CA from medical records, and diabetic neuropathic ulcers on lower extremities and feet.
Outcome: Pt will understand how to better monitor his blood sugar and will learn how to improve circulation in his lower extremities.

Objective Data

VS – T: 97.8 BP: 151/82 R: 12 P: 65
O2: 98
Pt has severe discoloration in lower extremities with venous and arterial ulcers
Multiple thrombi detected in lower extremities bilaterally
RBC = 3.31 Hgb = 10.0 Hct = 30.4
Platelets = 130
Glucose = 177

Patient Information

On 02/24/2021 a 62 yo pt with a hx of metastasizing CA, multiple resections of the CAs, a craniotomy on 12/08/2020, and T2DM was admitted to the rehab unit at OSF Urbana HMMC following a fall r/t generalized weakness. Pt also has vertebral osteomyelitis and is reporting pain.

Nursing Interventions

Complete PROM exercises 2x per shift.

One person assist with transfer or ambulation with gait belt and walker

Blood sugar monitoring QID and provide insulin according to results

Educate the patient for diet and maintaining consistent sugar and maintaining proper skin care