N311 Care Plan #2

Lakeview College of Nursing

Amber Raimer

Professor Brittany Lawson

03/08/2021

Demographics (5 points)

Date of Admission	Patient Initials	Age	Gender
10-15-2019	J.C.	80	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
white	Childcare	married	No Known Allergies
Code Status	**Height**	**Weight**	
DNR- Comfort measures only in the event of Covid	65.5”	130 pounds	

Medical History (5 Points)

Past Medical History: Benign Prostate Hypertension (07/17/2019), Congestive Heart Failure, Diabetes Mellitus (07/17/2019), Hypertension, Retinal Detachment, Vision loss Left Eye.

Past Surgical History: tonsillectomy, appendectomy, total hip arthroplasty

Family History:

No family medical history on file

Social History (tobacco/alcohol/drugs):

Former Smoker and Alcohol usage reported- .50 pack a day/ duration of smoking not noted, amount of alcohol not reported, but last consumption 07/18/2019. No previous drug use.

Admission Assessment

Chief Complaint (2 points): Diabetes Mellitus

History of present Illness (10 points): Patient admitted with 1.5 year history (07/17/2019) without unknown onset of Diabetes Mellitus. Admission from OSF Urbana, Illinois. Condition has been consistent since admission. Aggregating factors: consumption of carbs and excess sugar increase glucose levels. Relieving factors controlled No salt added diet. Presently taking no meds for Diabetes Mellitus. Patient A1C levels are being monitored.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Diabetes Mellitus

Secondary Diagnosis (if applicable):n/a

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

Diabetes Mellitus, also known as, type 2 diabetes(T2DM) occurs due to mutations of genes and is considered a polygenic disorder. (Capriotti, 2020) Other factors related to Diabetes Mellitus is heredity, obesity, diet, age, and activity level.(Capriotti, 2020) T2DM is generally slower to progress and is related to the development of insulin resistance. (Capriotti, 2020) Activity level and obesity is the leading cause of insulin resistance. (Capriotti, 2020) Leading this type of lifestyle can also eventually lead to the depletion of insulin reserves within the pancreas.(Capriotti, 2020) A small percentage of persons diagnosed with diabetes mellitus are related to autoimmune triggers that destroy the islet cells of the pancreas. (Capriotti, 2020) These triggers may be derived from environmental sources related to diet and certain types of infections. (Capriotti, 2020)

In a person without T2DM, carbohydrates are ingested, the carbohydrates then travel to the intestine and are broken down into monosaccharides or blood stream glucose. Glucose is the bodies energy source for cellular function. (Capriotti, 2020) "Before the body can utilize the energy it must first be processed through a plasma membrane to the cytoplasm of the cell." (Capriotti, 2020) Since glucose is a large molecule the process will require the assistance of facilitated diffusion. (Capriotti, 2020) This process now requires the use of insulin. (Capriotti, 2020) Since the body had already consumed carbohydrates and it has been broken down into glucose, the signal for beta cells within the islets of Langerhans (in the pancreas) to produce insulin hormone. (Capriotti, 2020) The pancreas

is also stimulated to release the insulin, which is responsible for driving energy uptake, storage as glycogen, and cellular use of glucose. (Capriotti, 2020) If there is an excess amount of glucose after energy requirements, storage and cellular use is met, the excess will be transformed to fat. (Capriotti, 2020)

When deficient amounts of glucose are detected in the bloodstream, the body will utilize fat stores in a process known as glycogenolysis. (Capriotti, 2020) This process requires the use of the hormones epinephrine and glucagon. (Capriotti, 2020) This process carries the body through defined periods of fasting and periods of rest. (Capriotti, 2020) In extended periods of fasting/starvation, the body will switch to gluconeogenesis. (Capriotti, 2020) A process that begins to deplete stored glycogen from the liver, muscle cells, and fat stores in the form of adipose tissue. (Capriotti, 2020) The downside is that there are biproducts that are put off into the bloodstream in the form of fatty acids and glycerol. (Capriotti, 2020) Fatty acids linger in the blood steam and are converted to ketones, which can lead to ketoacidosis or ketosis. (Capriotti, 2020) Ketones in the blood give off a fruity odor and is a sign of Diabetes Mellitus. (Capriotti, 2020) Excess ketones can also lead to confusion and disorientation, as it interferes with brain function. (Capriotti, 2020) The more severe result of excess ketones is Diabetic ketoacidosis or DKA in which they lack insulin reserves. (Capriotti, 2020)

Blood glucose monitoring is an essential tool in identifying diabetes mellitus. (Capriotti, 2020) The normal glucose concentration is 70-100mg/dL. It is important to understand that the brain requires use of glucose for function. (Capriotti, 2020) A level below 70 is hypoglycemia, while levels that exceed 200mg/dL is hyperglycemia. (Capriotti, 2020) Diabetes Mellitus is diagnosed with blood glucose level of over 200mg/dL or greater

using the two-hour plasma glucose test. (Capriotti, 2020) A test called A1C which tracks glucose control over time has a diabetes range of 6.5% or higher. (Capriotti, 2020) Once a patient is diagnosed as Diabetic, they use A1C to monitor values and determine treatment options. The A1C test can detect glucose averages going back as far as three months. (Capriotti, 2020) The A1C initial test may be paired with the oral glucose tolerance test on the same day and if both tests show diabetic range then they can confirm T2DM. (Capriotti, 2020)

In persons with Diabetes Mellitus, insulin resistance is related to pancreas insulin deficiencies. (Capriotti, 2020) The pancreas tries to bring down the glucose levels by secreting an increased amount of insulin to maintain biological responsiveness. (Capriotti, 2020) This in return overworks the pancreas and it fails to produce enough insulin to utilize the glucose. (Capriotti, 2020) As a result, blood glucose levels increase, and intervention is needed for treatment. (Capriotti, 2020) Initial signs and symptoms of T2DM is excessive urination, night sweats, and excessive thirst. Infection and skin breakdown are of high concern as T2DM affects all the bodies systems. (Capriotti, 2020) Excess glucose in the bloodstream is a breeding ground for microorganisms. (Capriotti, 2020) WBC and T cells are impaired and leads to immunosuppression. (Capriotti, 2020)

Treatment for T2DM can be simple to complex in nature. Beginning with diet change, exercise, and maintaining a healthy body mass index are beginning steps. Medications and Insulin therapy may also be required. The American Diabetes Association is a valuable resource to learning more and understanding how to live with diabetes. (American Diabetes Association, 2021)

Regarding the patient for this care plan, he presently has regular A1C test to monitor progression of disease. He presently is on a No Salt added or NSA diet. Being in a long-term care facility, they provide nutritious foods for mealtime. He takes no medications currently for T2DM.

The patient has developed a pressure ulcer just above the sacrum on his lower back. The pressure ulcer is in a warm-moist location, in addition to being on a pressure point. Friction and shear could cause damage and would not take long to break down the integrity of the skin in a person with T2DM. Wounds do not heal as quickly and must be frequently monitored as the White blood cells and T cells are impaired. (Capriotti, 2020) Frequent skin assessments and maintaining patient skin conditions are imperative to healing. Prevention is a necessity.

Pathophysiology References (2) (APA):

Capriotti, T. (2020) ***Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives Second Edition.*** **Philadelphia, PA: F. A. DAVIS**

American Diabetes Association. (2021, March). The Path to Understanding Diabetes Starts Here. https://www.diabetes.org/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	F 4.2-5.4 M 4.7-6.1	3.61		Low RBC can be caused from poor diet and chronic illness. (Pagana et al., 2021)
Hgb	F 12-16 M14-18 g/dL	10.7		Nutritional deficiency or antibiotic use. (Pagana et al., 2021)
Hct	F37-47% M42-52%	32.5		Dietary deficiency (Pagana et al., 2021)
Platelets	150-400	228		Within limits
WBC	5-10 (5,000-10,000/mm3)	4.0		Antibiotics can lower WBC Counts. (Pagana et al, 2021)
Neutrophils	55-70 Absolute 2500-8000	61		Within limits
Lymphocytes	20-40 Absolute 1000-4000	22		Within limits
Monocytes	2-8 Absolute 100-700	13		Inflammatory disorders (Pagana et al, 2021)
Eosinophils	1-4 Absolute 50-500	4		Within limits
Bands	0.5-1 Absolute 25-100			Not reported

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 meq/L			Not performed
K+	3.5-5 meq			Not performed
Cl-	98-106 meq			Not performed
CO2	23-30meq			Not performed
Glucose	74-106mg/ dL 4.1-5.9 mmol/l			Not performed
BUN	10-20 mg/dl			Not performed
Creatinine	F0.5-1.1mg M0.6-1.2mg			Not performed
Albumin	3.5-5 g/dl 35-50g/L(SI units)			Not performed
Calcium	6-13mg/dl			Not performed
Mag	1.3-2.1 mg/ dL			Not performed
Phosphate	3.0-4.5mg/ dl			Not performed
Bilirubin	.3-1.0 mg			Not performed
Alk Phos	36-150 u/l			Not performed

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	Clear, amber/yellow	Light yellow, clear		Normal range

pH	**4.6-8**	**5.0**		**Normal range**
Specific Gravity	**1.015-1.025**	**1.013**		**Renal disease or overhydration (Pagana et al, 2021)**
Glucose	**neg**	**norm**		**Listed as norm under results for this lab.**
Protein	**<100mg/24h negative**	**neg**		**Normal range**
Ketones	**negative**	**neg**		**Normal range**
WBC	**0-4**	**11-25**		**Bacteria in urine. (Pagana et al, 2021) infection**
RBC	**Less than or equal to 2.**	**0-2**		**Within range**
Leukoesterase	**negative**			**Not performed**

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				**Not performed**
Blood Culture				**Not performed**
Sputum Culture				**Not performed**
Stool Culture				**Not performed**

Lab Correlations Reference (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2021). ***Mosby's Diagnostic & Laboratory Test Reference, fifteenth edition.*** **St. Louis, MO: Elsevier**

Diagnostic Imaging

All Other Diagnostic Tests (10 points):)

No diagnostic imaging performed.

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

Medications (5 required)

Brand/ Generic	**Erygel/ Erythromycin ointment**	**Spironolactone tablet/Aldactone, Carospri**	**Oxycodone HCI / Xtampza ER**	**Coreg/ Carvedilol**	**Buspirone HCI- no alternative drug name listed**
Dose	**1 ribbon**	**25 mg**	**5 mg**	**3.125 mg**	**5 mg**
Frequency	**Twice a day**	**1 a day**	**2 times a day**	**2 times a day**	**1 time a day evening**
Route	**Topical/eye**	**By mouth**	**By mouth**	**By mouth**	**By mouth**
Classification	**Antibiotic Macrolides**	**Diuretics Potassium-Sparing diuretics-aldosterone receptor antagonists**	**Opioid analgesic**	**Anti-hypertensive Alpha-nonselective beta blocker.**	**Anxiolytics Azaspirodecanedione derivative**

Mechanism of Action	**Inhibits protein synthesis. (Nursing 2020 Drug Handbook 2020)**	**Increases the excretion of sodium and water by antagonizing aldosterone in the distal tubules. (Nursing 2020 Drug Handbook 2020)**	**Binds with opioid receptors in the CNS, changing perception of pain. (Nursing 2020 Drug Handbook 2020)**	**Non-selective beta blocker. (Nursing 2020 Drug Handbook 2020)**	**Inhibits neural firing and reduces serotonin turnover in cortical, amygdaloid, and sept hippocampal tissue. (Nursing 2020 Drug Handbook 2020)**
Reason Client Taking	**Eye redness Alleviate eye redness**	**Prevent edema**	**Pain reducing**	**Prevent hypertension**	**Anxiety as listed in chart under medications. but not under medical diagnosis. Help with anxiety.**
Contraindications (2)	**Hypersensitivity to the drug; Effectiveness with children has not yet been determined. (Nursing 2020 Drug Handbook 2020)**	**Renal Failure Hepatic issues. Hyperkalemia (Nursing 2020 Drug Handbook 2020)**	**At increased risk for respiratory depression. Contraindicated in those with bronchial asthma. (Nursing 2020 Drug Handbook 2020)**	**Asthma Use with caution with people with left sided heart failure. (Nursing 2020 Drug Handbook 2020)**	**Not recommended with patients with renal impairment Concomitant use with linezolid or methylene blue can cause serotonin syndrome. Use only if life threatening. (Nursing 2020 Drug Handbook 2020)**
Side Effects/ Adverse Reactions (2)	**Minor ocular irritations**	**Gastric bleeding, hyperkalemi**	**Clouded sensorium**	**Stroke, paresthesia**	**dizziness hostility**

		a	**bradycardia**		

Medications Reference (APA):

***Nursing 2020 Drug Handbook* (2020).**

Philadelphia, PA: Wolters Kluwer

Assessment

Physical Exam (18 points)

GENERAL: **Alertness: falling asleep** **Orientation: oriented to person** **Distress: no signs of distress** **Overall appearance: dressed and groomed**	**Patient alert to name only. Could only state month and day of birthday, could not recall year. Patient had been given pain medication and was falling asleep during interview. Patient did not appear distressed. Dressed and groomed**
INTEGUMENTARY: **Skin color: pink(white) appropriate** **Character: dry** **Temperature: warm** **Turgor: no tenting** **Rashes: no rashes** **Bruises: scattered bruises bilaterally on arms.** **Wounds: wound above sacrum area** **Braden Score: 12-high risk**	**Pink/white appropriate to ethnicity, dry, warm. No tenting noted. Skin free of rashes. Scattered bruising bilaterally on arms. Wound above sacrum area. Patient rates pain 2/10 and describes pain as "Nagging".** **Braden score of 12- High risk for pressure sores.**

Drains present: Y☐ N ☒ **Type:**	
HEENT: **Head/Neck: midline, thyroid not palpable** **Ears: cerumen present bilaterally** **Eyes: Left eye cloudy, right eye.** **Nose: midline, no polyps on tuberances, no polyps visible** **Teeth: no teeth**	**Head/Neck: neck midline, Thyroid not palpable** **Ears, no drainage notes, cerumen present bilaterally.** **Uvula deviated to the right. Right tonsil enlarged** **Eyes: conjunctiva clear bilaterally, sclera clear bilaterally left eye cloudy lens/pupil. Vision impaired left eye. Right eye and left eye EOM. Right eye reactive to light.** **Nose is midline, no drainage, no polyps on turbances noted.** **Patient has no teeth.**
CARDIOVASCULAR: **Heart sounds: normal** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):n/a** **Peripheral Pulses:2+bilaterally radial pulse and posterior tibial.** **Capillary refill: less than 3 seconds fingers and toes** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema: no edema present**	**Heart sounds normal S1 and S2, no murmur, rub, or gallops. PMI normal rate and rhythm.** **Peripheral pulses 2+radial bilaterally, 2+ posterior tibial bilaterally.** **Capillary refill less than 3 seconds fingers and toes.**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Normal, regular rhythm and rate**	**Normal rhythm and rate of respirations. Non-labored bilaterally. Lung sounds clear bilaterally. No rhonchi, wheeze, or crackles noted.**
GASTROINTESTINAL: **Diet at home: n/a** **Current Diet No Salt Added** **Height: 65.5”** **Weight:130** **Auscultation Bowel sounds: normal, all 4 quadrants** **Last BM: 03/02/2021** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:not present** **Incisions:not present** **Scars:not present** **Drains: none**	**Patient on a No salt added diet.** **Height 65.5” Weight 130 pounds** **Bowel sounds normal, heard in all 4 quadrants.** **Abdomen soft, patient denies pain.** **Patient BM 03/02/2021** **No signs of distention, incisions, scars, or wounds.**

Wounds:none **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color: amber in color** **Character: aromatic** **Quantity of urine: in depends,** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals: free of sores** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Urine was amber in color, aromatic, quantity of urine unknown due to incontinence. Patient did not report pain with urination.** **Genitals are free of wounds or sores.**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 105- morse scale** **Activity/Mobility Status: impaired** **Independent (up ad lib) ☐no** **Needs assistance with equipment ☐ yes gait belt and 2 person assist to wheelchair** **Needs support to stand and walk☐yes, unable to tolerate walking.**	**Patient required assistance with ambulation from bed to chair.** **Patient is a fall risk. Morse scale score of 105** **Patient is unable to tolerate walking. Unsteady gate and weak upon ambulation and required 2 persons assist for transfer from bed to chair.**
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☒** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation: oriented to person** **Mental Status: n/a** **Speech:n/a** **Sensory:n/a** **LOC: Oriented to person. Alert**	**Right eye is reactive to light. Left eye vision impairment. Cloudy lens. Both eyes had EOM.** **Oriented to person only. Could not verify complete date of birth and thought he was in the hospital.**
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:**	**Did not discuss**

Personal/Family Data (Think about home environment, family structure, and available family support):	

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
08:00	**75**	**Notified Nurse of findings**	**16**	**97.8**	**Notified nurse of findings**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
08:00	**1-10**	**Lower back**	**2**	**Patient states, " Nagging Pain"**	**Nurse performed wound treatment and administered pain medication. Repositioned in bed.**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
340	**Void x2**

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. At risk for pressure ulcer related to Diabetes mellitus as evidenced by a braden score of 12; High risk.	**Patient already has a wound that is healing above the sacrum area. He is incontinent and wears depends. He requires assistance for repositioning and was admitted with a 1.5 year history of Diabetes Mellitus.**	**1.Perform increased skin assessments and work with assistive personnel to notify if they notice skin deterioration for intervention** **2.Nurse will frequently check with patient to determine if there are any other areas of pain or discomfort daily and during med administration and wound care treatment.**	**Patient will be free of new pressure ulcers due to improved nursing interventions and assistive personnel communication.** **Patient will communicate with nurse when prompted for measuring pain levels to keep to acceptable to patient, as needed.**
2. Risk for Disuse syndrome related to muscle weakness as evidenced by a morse fall scale of 105 and a reddened area just above the sacral region.	**Patient cannot ambulate without assistance and requires further assistance in repositioning in bed. Patient has developed a wound above sacral area on lower back. He is also weak when transferring.**	**1. Full range of motion exercises performed frequently to maintain level of mobility and full range of motion.** **2.The patient will attempt to ambulate a few times a day with assistance, as tolerated.**	**Patient will discuss with nurse how they feel about Range of Motion exercises and ambulation with assistance. Nurse and patient will evaluate effectiveness.** **Patient will assist with ADL's as tolerated. Staff will encourage patient to assist.**

Other References (APA):

Carpenito, L. J., (2017). *Nursing Diagnosis: Application to Clinical Practice Fifteen Edition.* Philadelphia, PA: Wolters Kluwer

Concept Map (20 Points):

Subjective Data

Patient had lower back pain rated 2/10. Patient describes as “nagging pain”.

Nursing Diagnosis/Outcomes

isk for pressure ulcer related to Diabetes mellitus as evidenced by a braden score of 12; High risk.
Patient will be free of new pressure ulcers due to improved nursing interventions and assistive personnel communication.

Risk for Disuse syndrome related to muscle weakness as evidenced by a morse fall scale of 105 and a reddened area just above the sacral region.
Patient will discuss with nurse how they feel about Range of Motion exercises and ambulation with assistance. Nurse and patient will evaluate effectiveness.

Objective Data

80 year old male
Wound above sacrum area.
130 pounds
65.5” Height
No added salt diet.
Admitted with Diabetes Mellituis.
Alert to person only

Patient Information

80 year old Male
130 Pounds
65.5” tall
No salt added diet

Nursing Interventions

.Perform increased skin assessments and work with assistive personnel to notify if they notice skin deterioration for intervention
Nurse will frequently check with patient to determine f there are any other areas of pain or discomfort aily and during med administration and wound care reatment.
Full range of motion exercises performed frequently to maintain level of mobility and full range of motion.
The patient will attempt to ambulate a few times a day with assistance, as tolerated.