N311 Care Plan # 1

Lakeview College of Nursing

Trevor Davis

Demographics (5 points)

Date of Admission June 2019	Patient Initials PW	Age 70	Gender F
Race/Ethnicity White	Occupation N/A	Marital Status Not Married	Allergies Darvon/ Propoxyphene
Code Status Full code	Height 62 in	Weight 99.8 kg	

Medical History (5 Points)

Past Medical History: Pt. has a history of type 2 diabetes mellitus along with hypertension.

Past Surgical History: Pt. had “cataracts surgery in 2014, open heart surgery in 1999, a gall bladder removal in 2018, and her tonsils taken out at age 7”.

Family History: The patient’s father “died of a cardiac thrombosis at age 40”. Her mother died of “what she believes to be natural causes”.

Social History (tobacco/alcohol/drugs): Pt. was a social drinker (“one night a week”), smoked occasionally, but “no alcohol or cigarettes since 2009”.

Admission Assessment

Chief Complaint (2 points): “Gall bladder surgery, admitted for rehab in 2018”.

History of present Illness (10 points): The patient was admitted to Hilltop rehab in April, 2018 to recover from a cholecystectomy. She came to Odd Fellows in June, 2019 due to personal issues with residents/ staff at Hilltop. Currently on the pain scale of 0-10, the patient is at a 0/10. The patient is now a resident at Odd Fellows.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Type 2 diabetes mellitus

Secondary Diagnosis (if applicable): Hypertension

Pathophysiology of the Disease, APA format (20 points): Type 2 diabetes is a metabolic disorder that results in insulin resistance with insulin deficiency that results in hyperglycemia, without ketosis most of the time (Swearingen & Wright 2019). Untreated hyperglycemia can lead to hyperglycemic hyperosmolar state (HHS). Obesity is common among those with type 2 DM (Swearingen & Wright 2019).

Hypertension is high blood pressure that is controlled by four mechanisms: arterial baroreceptors, renal function, the renin- angiotensin system, and vascular autoregulation (Swearingen & Wright 2019).

Pathophysiology References (2) (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health*. St. Louis, MO: 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	**11.5- 14.5%**			
Hgb	**13-17 g/dL (M) 12-15 g/dL (W)**		**13**	

Hct	**40-52% (M) 36-47% (W)**			
Platelets	**150-400 X 10^9/L**		**410**	"Hyperglycemia contributes to greater platelet reactivity through direct effects and by promoting glycation of platelet proteins (Schneider 2009)." "Hypertriglyceridemia increases platelet reactivity. Both insulin resistance and insulin deficiency increase platelet reactivity (Schneider 2009)".
WBC	**4-10 X 10^9/L**		**11**	Elevated WBC count is associated with insulin resistance in patients with chronic diabetes and obesity (Krishnan 2017).
Neutrophils	**2-8 X 10^9/L**			
Lymphocytes	**1-4 X 10^9/L**			
Monocytes	**0.2-0.8 X 10^9/L**			
Eosinophils	**< 0.5 X 10^9/L**			
Bands	**< 1 X 10^9/L**			

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 mmol/L**		**134**	Hyponatremia and hyperglycemia tend to coexist due to glucose being an osmotic active substance (Liamis, Tsimihodimos, Elisaf 2015). This leads to movement of water out of cells and subsequently to a reduction of serum sodium levels (Liamis, Tsimihodimos, Elisaf 2015).
K+	**3.5-5 mmol/L**		**3.9**	

Cl-	**95-105 mmol/L**		**97**	
CO2	**35-45 mm/Hg**			
Glucose	**65-110 Mg/dL**		**225**	High blood sugar (hyperglycemia) affects people who have diabetes. Several factors can contribute to hyperglycemia in people with diabetes, including food and physical activity choices, illness, nondiabetes medications, or skipping or not taking enough glucose-lowering (Hyperglycemia in diabetes 2018).
BUN	**8-21 mg/dL**		**40**	It is believed that higher Urea levels are associated with diabetes. Higher levels of urea increase insulin resistance and suppress insulin secretion (Xie, Bowe, Li, Xian, Yan, Al-Aly 2018).
Creatinine	**0.8-1.3 mg/dL**		**1.7**	Creatinine helps measure glomerular filtration rate to test kidney function. A buildup of creatinine means the GFR is lower than normal and could result in diminished kidney function associated with diabetes (Dinsmoor 2014)
Albumin	**35-50 g/L**			
Calcium	**2-2.6 mmol/L (8.5-10.2 mg/dL)**			
Mag	**1.5-2 mEq/L**			
Phosphate	**0.8-1.5 mmol/L**			
Bilirubin	**2-20 µmol/L**			
Alk Phos	**50-100 U/L**			

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	Pale yellow-light amber, translucent			
pH	4.5-8			
Specific Gravity	1.005-1.025			
Glucose	≤ 130 mg/d			
Protein	≤ 150 mg/d			
Ketones	none			
WBC	≤ 2-5 WBCs/hpf			
RBC	≤ 2 RBCs/hpf			
Leukocyte esterase	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	No growth			
Blood Culture	No growth			
Sputum Culture				
Stool Culture	Negative			

Lab Correlations Reference (APA):

Farinde, PharmD, PhD, A. (2019, May 29). Lab Values, Normal Adult: Laboratory Reference Ranges in Healthy Adults. Retrieved from https://emedicine.medscape.com/article/2172316-overview

Lerma, MD, FACP, E. (2019, July 3). Urinalysis: Reference Range, Interpretation, Collection and Panels. Retrieved from https://emedicine.medscape.com/article/2074001-overview#a1

Urine Culture: Reference Range, Interpretation, Collection and Panels. (2017, January 7). Retrieved from https://emedicine.medscape.com/article/2093272-overview

Blood Culture: Reference Range, Interpretation, Collection and Panels. (2017, January 7). Retrieved from https://emedicine.medscape.com/article/2093349-overview

Dinsmoor, R. (2014, May). Creatinine - Diabetes Resources & Information: Diabetes Self. Retrieved from https://www.diabetesselfmanagement.com/diabetes-resources/definitions/creatinine/

Stool Culture: Reference Range, Interpretation, Collection and Panels. (2018, July 5). Retrieved from https://emedicine.medscape.com/article/2107038-overview

Schneider, D. J. (2009, April). Factors contributing to increased platelet reactivity in people with diabetes. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2660482/

Liamis, G., Tsimihodimos, V., & Elisaf, M. (2015). Hyponatremia in Diabetes Mellitus: Clues to Diagnosis and Treatment. *Journal of Diabetes & Metabolism*, *06*(06). doi: 10.4172/2155-6156.1000560

Krishnan, D. (2017). Study of relationship between WBC count and Diabetic complications. Retrieved from https://www.ijmedicine.com/index.php/ijam/article/view/709

Hyperglycemia in diabetes. (2018, November 3). Retrieved from https://www.mayoclinic.org/diseases-conditions/hyperglycemia/symptoms-causes/syc-20373631

Xie, Y., Bowe, B., Li, T., Xian, H., Yan, Y., & Al-Aly, Z. (2018, March). Higher blood urea nitrogen is associated with increased risk of incident diabetes mellitus. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/29241622

Diagnostic Imaging

All Other Diagnostic Tests (10 points): No diagnostic imaging done.

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

Medications (5 required)

Brand/Generic	**Novalog/ Insulin aspart**	**Maalox/ Aluminum Hydroxide and Magnesium Hydroxide Suspension**	**Lisinopril/ Prinivil**	**Byetta/ exenatide**	**Toujeo/ insulin glargine**
Dose	**1 unit/ml**	**200 mg.**	**5 mg.**	**5 mcg**	**10 units**
Frequency	**w/in 20 min of meal**	**As needed, no more than 80 mL/day**	**w/in 24 of onset of symptoms, 5 mg after 24 hrs, 10 mg after 48 hr. 10 mg daily for 6 weeks**	**2x daily morning and evening**	**Once/ day**
Route	**Subcutaneous injection**	**Oral/ chewable**	**Oral solution or tablet**	**Subcutaneous injection**	**Subcutaneous injection**
Classification	**antidiabetic**	**antacid**	**Antihypertensive**	**antidiabetic**	**antidiabetic**
Mechanism of Action	**binds to the insulin receptors on muscle and fat cells and lower blood glucose by facilitating the cellular uptake of glucose and simultaneously inhibiting the output of glucose from the liver.**	**An antacid that reduces gastric acid by binding with phosphate in the intestine, and then is excreted as aluminum carbonate in feces.**	**Reduces blood pressure by reducing angiotensin I to angiotensin II.**	**Restores first phase insulin response and improves the second phase that follows**	**insulin glargine regulates glucose metabolism by controlling high blood sugar levels in patients with type 1 and type 2 diabetes.**
Reason Client Taking	**Hyperglycemia**	**Acid reflux**	**Hypertension**	**hyperglycemia**	**Hyperglycemia**
Contraindications (2)	**Aspirin, lasix**	**Aspirin, Azithromycin**	**Diuretics, gold**	**Sensitivity to exenatide, ketoacidosis**	**hypersensitivity reactions to insulin**

					glargine, hypokalemia
Side Effects/Adverse Reactions (2)	**Hypoglycemia, dizziness**	**Allergic reaction, constipation**	**Ataxia, confusion**	**Dizziness, headache**	**Anxiety, convulsions**

Medications Reference (APA):

Insulin glargine Uses, Side Effects & Warnings. (0AD). Retrieved from https://www.drugs.com/mtm/insulin-glargine.html

Maalox: Indications, Side Effects, Warnings. (0AD). Retrieved from https://www.drugs.com/cdi/maalox.html

Jones & Bartlett Learning. (2019). *2019 Nurses drug handbook*. Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **Alert** **ANO X 4** **No pain 0/10** **Pt. is well groomed and put together**
INTEGUMENTARY: **Skin color:** **Character:**	 **Normal for ethnicity** **Warm, dry, semi-loose**

Temperature: **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	**Extremities are warm** **Normal turgor, fairly elastic** **None** **None** **None** **19- low risk**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 **Normocephalic** **Intact** **Slow accommodation, pt. wears glasses** **Intact, no drainage** **Pt. wears dentures**
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:**	**Normal, no murmur, RRR** **Left radial pulse 84 bpm 2+** **Capillary refill < 3 seconds** **Bilateral leg edema**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	**Breath sounds normal** **Pt. on supplemental O_2–2L continuous via NC**
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:**	 **Low sugar diet** **Low sugar diet** **62”** **99.8 kg** **Active bowel sounds in all 4 quadrants** **This morning** **No pain or mass present** **None** **None** **None** **None** **None**

Ostomy: Y ☐ N ☒ **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	**Patient did not void urine during assessment.**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**2+ radial pulse bilaterally. 1+ pedal pulse bilaterally** **Normal ROM in upper extremities** **Walker, wheelchair** **Fall risk score of 75** **Needs assistance with equipment 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:**	 **Patient does not accommodate well** **Right upper extremity is stronger** **ANO X 4** **Alert** **Clear speech** **Has feeling in all extremities** **Normal- conscious**

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):**	 **Watches TV to cope with stress and boredom** **Appropriate for age** **N/A** **Family is distant**

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
11:18	**84 bpm**	**128/62**	**16** **respirations/min**	**98.6 deg F**	**97%**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
11:30	**0-10**	**None**	**0/10**		

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
None during assessment	**None during assessment**

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

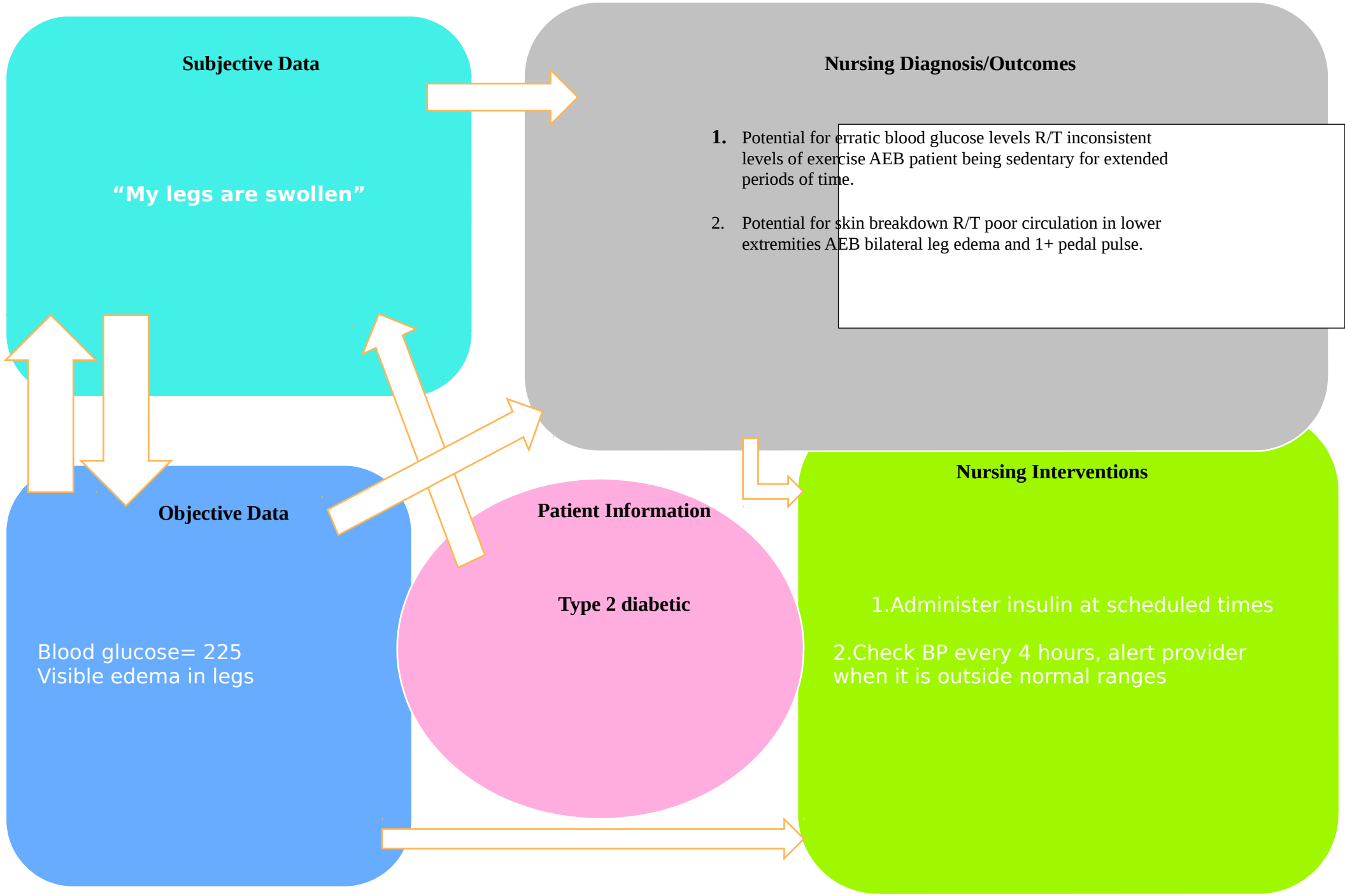
Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with	• Explain why the nursing		• How did the patient/family respond

“related to” and “as evidenced by” components	diagnosis was chosen		to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
1. Potential for erratic blood glucose levels R/T inconsistent levels of exercise AEB patient being sedentary for extended periods of time.	Pt. suffers from Type 2 diabetes	1.Administer insulin at scheduled times 2.Check BP every 4 hours, alert provider when it is outside normal ranges	Patient had a positive reaction to interventions
2. Potential for skin breakdown R/T poor circulation in lower extremities AEB bilateral leg edema and 1+ pedal pulse.	Pt. suffers from Type 2 diabetes	1. Assess integrity of skin and assess reflexes of lower extremities 2.Monitor peripheral pulses	Patient had a positive reaction to interventions

Other References (APA):

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

Concept Map (20 Points):


Subjective Data
"My legs are swollen"
Nursing Diagnosis/Outcomes
1. Potential for erratic blood glucose levels R/T inconsistent levels of exercise AEB patient being sedentary for extended periods of time.
2. Potential for skin breakdown R/T poor circulation in lower extremities AEB bilateral leg edema and 1+ pedal pulse.
Objective Data
Blood glucose= 225
Visible edema in legs
Patient Information
Type 2 diabetic
Nursing Interventions
1.Administer insulin at scheduled times
2.Check BP every 4 hours, alert provider when it is outside normal ranges