N441 Care Plan

Lakeview College of Nursing

Deb Hemsouvanh

Demographics (3 points)

Date of Admission 4/4/22 at 0830	**Client Initials** P.H	**Age** 83 years old	**Gender** Male
Race/Ethnicity Caucasian	**Occupation** Retired	**Marital Status** Divorced	**Allergies** Penicillins
Code Status FULL	**Height** 5’6” ft (167.6 cm)	**Weight** 144 lb (65.6 kg)	

Medical History (5 Points)

Past Medical History: Diabetes Mellitus, Erectile Dysfunction, and history of Stress and Urge Incontinence

Past Surgical History: Hernia repair x2 and Partial Left Hip Arthroplasty

Family History: Mother: Congestive Heart Failure, Diabetes, and Heart Disease; Father: Heart Disease

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Medical record reports no tobacco, alcohol or drug use

Assistive Devices: No assistive devices recorded other than lift equipment

Living Situation: Accolade Healthcare Nursing Home

Education Level: Unable to determine education level and was not recorded in medical record

Admission Assessment

Chief Complaint (2 points): Altered mental status

History of Present Illness – OLD CARTS (10 points): On April 4th, an 83-year-old male from Accolade Healthcare Nursing Home was admitted to OSF for altered mental status. He was recently discharged on March 24th from OSF following a left hip fracture with open reduction internal fixation and COVID-19. Accolade reports that at 0500, the patient complained of nausea and was given Zofran. Shortly after, he became lethargic and seemed unresponsive, and they

were concerned that he might have had left-sided weakness and facial droop. At 0837, he arrived by ambulance at the emergency department. His vitals were a temperature of 102.2 Fahrenheit, blood pressure 81/43, heart rate was 131, respirations were 24 breaths per minute, and his oxygen saturation was 97%. Labs were obtained, and urinalysis results had 2+ leukocyte esterase and 51-150 white blood cells. He was given Vasopressor, 3 liters 0.9% normal saline bolus, nitrated Norepinephrine, Cefepime, Acetaminophen suppository, an indwelling urinary catheter and PICC line insertion in the right upper arm.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Septic Shock

Secondary Diagnosis (if applicable): Acute Cystitis with Hematuria, Acute Kidney Injury, and Acute Metabolic Encephalopathy

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

Septic shock is defined as severe sepsis with life-threatening hypotension that is intractable to fluid replacement and vasopressors (Capriotti & Frizzell, 2020). It most often develops in people who are immunocompromised, such as postoperative patients; patients with diabetes, pulmonary disease, and renal insufficiency (Capriotti & Frizzell, 2020). P.H. has a medical history of diabetes and was recently discharged from OSF following a left hip fracture with open reduction internal fixation and diagnosis of COVID-19. Septic shock occurs when pathogens such as *Clostridia, S. Aureus, Streptococci A, and Meningococci* produce toxins that invade body tissues, leading to poor tissue perfusion (Capriotti & Frizzell, 2020). The body is not adequately getting enough oxygen and nutrients to the tissues and cells, which decreases tissue perfusion and cardiac output (Hinkle & Cheever, 2020) and is consistent with P.H.'s decreased

blood pressure, hemoglobin, and hematocrit values and increased heart rate. Cytokines released during the inflammatory response form clots and inhibit protein C, a naturally occurring anticoagulant (Capriotti & Frizzell, 2020). Epinephrine and cortisol reduce insulin sensitivity, impairing white blood cells' ability to fight off infection (Capriotti & Frizzell, 2020).

Septic shock's initial signs and symptoms can include confusion or changes in mental status, normal blood pressure or hypotension, tachycardia, hyperthermia, fever, tachypnea, and decreased urine output (Hinkle & Cheever, 2020). P.H. was sent from Accolade to the emergency department for complaints of altered mental status. His vitals were blood pressure of 81/43, his heart rate was 131, his temperature was 102.2 Fahrenheit, respirations were 24 breaths per minute, and his oxygen saturation was 97%. As sepsis progresses, blood pressure drops and does not respond to fluid resuscitation and vasoactive agents. Signs of end-organ damage are evident, such as acute kidney injury (Hinkle & Cheever, 2020), consistent with P.H. 's elevated levels BUN value of 55 and creatinine value of 1.59.

There is a high mortality rate associated with sepsis shock, so treatment involves rapid identification and elimination of the cause of infection (Hinkle & Cheever, 2020). Septic shock is diagnosed when a patient meets severe sepsis criteria as evidenced by altered mental status utilizing Glasgow Coma Scale, hypoxemia, elevated plasma lactate level, oliguria, and hypotension that is intractable to fluid resuscitation (Hinkle & Cheever, 2020). Labs, cultures, and sensitivities are obtained to identify specific pathogens and prescribe appropriate antibiotics. On admission, P.H. had labs obtained indicating his lactic acid levels were elevated at 5.1, urinalysis confirmed 2+ leukoesterase, 51-150 WBC, and urine and blood cultures had Escherichia coli growth. He also had a C.T. without contrast performed on his head, chest, abdomen, and pelvis to help identify the source of sepsis. The findings were normal in

correlation to septic shock. However, the findings were consistent with P.H.'s secondary diagnosis of Acute Cystitis with Hematuria, indicating the C.T. revealed that his kidneys had multiple cysts and some narrowing of the left proximal ureter.

Treatment of septic shock also includes implementing strict hand hygiene and adhering to infection prevention techniques and practices (Hinkle & Cheever, 2020). In addition to reducing the temperature by administering acetaminophen, IV vasopressors support blood pressure, provide supplemental oxygen, transfuse packed red blood cells, and control glucose (Hinkle & Cheever, 2020). P.H. received acetaminophen suppository, IV norepinephrine, IV antibiotic Cefepime, 3 liters of 0.9% normal saline IV bolus, and an indwelling catheter to monitor urine output.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J. (2020). *Pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis Company.

Hinkle, J.L. & Cheever, K.H. (2020). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer Health Lippincott Williams & Wilkins.

Laboratory Data (15 points)

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	**3.80 - 5.30**	**3.34**	**2.83**	P.H. decreased RBC could be explained due to overhydration and/or chronic illness (Pagana et al., 2019) which is consistent with receiving 3 liters of 0.9% NS IV bolus and meeting other criteria for sepsis shock.

Hgb	**12.0 - 15.8**	**9.3**	**7.8**	Decreased Hgb levels are associated with nutritional deficiency, antibiotics and aspirin (Pagana et al., 2019). P.H. received acetaminophen and IV antibiotics.
Hct	**36.0 - 47.0**	**28.8**	**23.9**	Hct closely reflects the Hgb and RBC values, it is also associated with hemolytic reaction (Pagana et al., 2019). Cytokines released during the inflammatory response form clots and inhibit protein C, a naturally occurring anticoagulant (Capriotti & Frizzell, 2020).
Platelets	**140 - 440**	**177**	**119**	Decreased platelets are associated with acute or chronic infection (Pagana et al., 2019).
WBC	**4.00 - 12.00**	**8.70**	**34.40**	Increased WBC count is explained due to infection and stress (Pagana et al., 2019).
Neutrophils	**40.0 - 68**	**98.3**	**86.0**	Increased neutrophils due to physical or emotional stress (Pagana et al., 2019).
Lymphocytes	**19.0 - 49**	**1.1**	**1.0**	Sepsis causes a decrease in lymphocytes (Pagana et al., 2019).
Monocytes	**3.0 - 13.0**	**0.3**	**1.0**	Antibiotics decrease monocytes (Pagana et al., 2019). P.H. received IV Cefepime.
Eosinophils	**0 - 5**	**0.1**	**N/A**	
Bands	**0.0 - 10.0**	**N/A**	**11.0**	An increase in bands is indicative of an ongoing acute bacterial infection (Pagana et al., 2019) that is consistent with his diagnosis of septic shock.

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**	**141**	**149**	An increase in Na levels include antibiotics (Pagana et al., 2019).
K+	**3.5 – 5.1**	**3.6**	**3.4**	P.H. is a diabetic, decreased levels of K+ could be explained due to insulin administration (Pagana et al., 2019).

Cl-	**98 - 107**	**104**	**118**	Increased levels of Cl- include excessive infusion of normal saline and kidney dysfunction (Pagana et al., 2019). P.H. has continuous 0.9% sodium chloride at 25 mL/hr and is diagnosed with acute kidney infection.
CO2	**21.0 – 32.0**	**19**	**19**	Decreased levels of CO2 are associated with shock (Pagana et al., 2019).
Glucose	**60 - 99**	**196**	**73**	Elevated glucose levels are associated with diabetes mellitus (Pagana et al., 2019), P.H. has a medical history of diabetes mellitus.
BUN	**7 - 18**	**55**	**42**	Elevated BUN levels are associated with shock and sepsis (Pagana et al., 2019)
Creatinine	**0.70 – 1.30**	**1.59**	**1.07**	An increase in Creatinine is associated with reduced renal blood flow such as shock (Pagana et al., 2019).
Albumin	**3.4 – 5.0**	**2.8**	**2.4**	A decrease in albumin levels can be associated with acute infections (Pagana et al., 2019).
Calcium	**8.5 – 10.1**	**8.3**	**7.3**	When albumin levels are low, calcium levels are also low due to malnourishment (Pagana et al., 2019).
Mag	**1.6 - 2.6**	**2.1**	***N/A**	
Phosphate	**2.5 - 4.5**	*****	*****	
Bilirubin	**0.0 – 1.2**	**0.9**	**0.6**	
Alk Phos	**34 - 104**	**120**	**79**	Antibiotics can cause an increase in alkaline phosphatase (Pagana et al., 2019). P.H. was on IV antibiotics.
AST	**16 – 40**	**10**	**19**	Patients with acute renal disease may have an increase in AST (Pagana et al., 2019) which is consistent with his secondary diagnosis of acute kidney injury.
ALT	**7 - 52**	**13**	**12**	
Amylase	**23 – 85**	*****	*****	
Lipase	**0 - 160**	*****	*****	

Lactic Acid	**0.50 – 2.0**	**5.1**	*****	Increased levels of lactic acid is associated with shock (Pagana et al., 2019).
Troponin	**0.0 – 0.04**	**0.04**	*****	
CK-MB	**5 - 25**	*****	*****	
Total CK	**22 - 198**	*****	*****	

Other Tests Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Admission Value	Today's Value	Reason for Abnormal
INR	**0.8 – 1.2**			****No additional labs were completed for this patient.****
PT	**10 – 14 sec**			
PTT	**30 – 45 sec**			
D-Dimer	**100.0 – 399.0**			
BNP	**15.00 – 99.90**			
HDL	**<200**			
LDL	**>60**			
Cholesterol	**<200**			
Triglycerides	**<140**			
Hgb A1c	**<6.5**			
TSH	**0.4 – 4.0**			

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	**Colorless-Yellow,**	**Yellow**	***N/A**	

	Clear			
pH	**5.0 – 7.0**	**5.0**	*	
Specific Gravity	**1.003 – 1.005**	**1.019**	*	An increase of specific gravity indicates concentrated urine (Pagana et al., 2019) with the presence of glucose, WBC, RBC, and leukoesterase. Increase levels are associated with fever, P.H. had a fever of 102.2 fahrenheit upon admission.
Glucose	**Negative**	**3+**	*	Elevated glucose identifies with diabetes mellitus (Pagana et al., 2019). Also, patients with acute severe physical stress or injury can have a transient glucosuria caused by compensatory endocrine-mediated responses (Pagana et al., 2019).
Protein	**Negative**	**Negative**	*	
Ketones	**Negative**	**Negative**	*	
WBC	**0 – 25/uL**	**51 - 150**	*	Increased WBCs indicate bacterial infection in the urinary tract (Pagana et al., 2019).
RBC	**Negative**	**0 - 2 uL**	*	Increased RBC is associated with renal trauma, renal stones, and cystitis (Pagana et al., 2019).
Leukoesterase	**Negative**	**2+**	*	Presence of leukoesterase indicates possible UTI (Pagana et al., 2019).

Arterial Blood Gas 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**
pH	**7.35 – 7.45**			****No arterial blood gasses were completed for this patient.****
PaO2	**80 - 100**			
PaCO2	**35 - 45**			

HCO3	**22 - 26**			
SaO2	**95 - 100**			

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**	**Greater than 100,000 CFU/mL Escherichia coli**	***N/A**	Positive findings of urine culture are indicative of UTI (Pagana et al., 2019).
Blood Culture	**Negative**	**Escherichia coli**	*	Positive findings of blood cultures are indicative of the presence of bacteria (Pagana et al., 2019).
Sputum Culture	**Negative**		*	
Stool Culture	**Negative**		*	

Lab Correlations Reference (1) (APA):

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

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

CT of head, chest, abdomen, and pelvis without contrast.

Diagnostic Test Correlation (5 points):

P.H. was sent to the ED from Accolade nursing home for complaints of altered mental status, he had a CT of the head without contrast performed to visualize cranial content and to assess for abnormal findings such as aneurysm, hemorrhage, and hematoma (Pagana et al., 2019). The

results were suggestive of third, fourth, and lateral ventricles and sulci showed moderate atrophy which correlates to his diagnosis of acute metabolic encephalopathy.

P.H also had a CT of his chest, abdomen, and pelvis without contrast performed to diagnose and assess for conditions such as pericardial effusion, tumors, and nodules (Pagana et al., 2019). The results were suggestive of calcified granuloma in both lungs, no infiltrates or pericardial effusion.

There were normal findings in his abdomen and pelvis however, his kidneys had multiple cysts and mild dilation of the left renal pelvis with some narrowing of the left proximal ureter which correlates to to his diagnosis of acute cystitis with hematuria and acute kidney injury.

Diagnostic Test Reference (1) (APA):

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

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/ Generic	Aspirin/ Acetylsalicylic acid	Centrum/ Multivitamin	Humulin Novalin/ Regular insulin	Jardiance/ Empagliflozin	Uroxatral/ Alfuzosin
Dose	81 mg	1 tablet	Sliding scale	10 mg	10 mg
Frequency	Once daily	Once daily	Up to 3 times a day before meals	Once daily	Once daily
Route	PO	PO	Subcutaneous	PO	PO
Classification	NSAID	Multivitamin	Short-acting Insulin	Antidiabetic	Benign prostatic hypertrophic

Mechanism of Action	Inhibits platelet aggregation by interfering with production of thromboxane A2, a substance that stimulates platelet aggregation (Jones & Bartlett, 2020).	Used to treat vitamin deficiencies caused by illness, poor nutrition, digestive disorders, and many other conditions (Centrum, n.d.).	Lowers blood glucose by stimulating peripheral glucose uptake by skeletal muscle and fat, and inhibiting hepatic glucose production (Humulin, n.d.).	Inhibits sodium glucose in the kidneys, which prevent glucose reabsorption and lowers blood glucose levels (Jones & Bartlett, 2020).	Improve urine flow and bladder emptying and reduce urinary hesitancy, frequency, and nocturia (Jones & Bartlett, 2020).
Reason Client Taking	To reduce the severity of or prevent acute MI (Jones & Bartlett, 2020), patient has a family history of heart disease.	To provide daily vitamins to help growth and good health (Centrum, n.d.).	To control high blood sugar with diabetes mellitus (Humulin, n.d.).	To reduce risk of cardiovascular death with type 2 diabetes mellitus who have established cardiovascular disease (Jones & Bartlett, 2020).	To treat signs and symptoms of benign prostatic hyperplasia (Jones & Bartlett, 2020).
Contraindications (2)	Active bleeding or coagulation disorders Hypersensitivity to aspirin (Jones & Bartlett, 2020).	Anemia Kidney disease (Rxlist.com, n.d.)	Hypoglycemia Hypersensitivity reactions to Humulin (Humulin, n.d.).	Hypersensitivity to empagliflozin or its components End-stage renal disease (Jones & Bartlett, 2020).	Hypersensitivity to alfuzosin or its components Moderate to severe hepatic insufficiency (Jones & Bartlett, 2020).
Side Effects/ Adverse Reactions (2)	Confusion Thrombocytopenia (Jones & Bartlett, 2020).	GI upset Unpleasant taste (Rxlist.com, n.d.)	Hypoglycemia Hypokalemia (Humulin, n.d.).	Dehydration Hypotension (Jones & Bartlett, 2020).	Atrial fibrillation Hepatotoxicity (Jones & Bartlett, 2020).
Nursing Considerati	Don’t crush timed-	Have the patient take	Visually inspect before	Monitor for dehydration	Monitor for orthostatic

ons (2)	release or controlled-released aspirin tablets unless directed (Jones & Bartlett, 2020). Use an immediate-release aspirin in situations where a rapid onset of action is required such as in the acute treatment of myocardial infarction or before percutaneous coronary intervention (Jones & Bartlett, 2020).	with food if it causes stomach upset (Centrum, n.d.). Signs of an allergic reaction include rash, hives, red, swollen, blistered or peeling skin with or without fever (Centrum, n.d.).	use and only use if it contains no particulate matter and appears uniformly cloudy after mixing (Humulin, n.d.). Monitor for hypoglycemia.	and renal dysfunction because drug therapy can cause hypotension and acute kidney injury (Jones & Bartlett, 2020). Patients who receive insulin may require a lower dose in combination because it increases risk of hypoglycemia (Jones & Bartlett, 2020).	hypotension (Jones & Bartlett, 2020). Monitor patient for chest pain, if symptoms occur, notify prescriber immediately (Jones & Bartlett, 2020).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Check to see if the patient had any aspirin and if he has then to make sure he does not exceed the maximum daily dose (Jones & Bartlett, 2020).	Assess for dosage, do not administer 2 doses at the same time or extra doses if dose was missed (Centrum, n.d.).	Obtain blood glucose check and rotate injection sites.	Obtain creatinine levels prior to starting drug therapy because the elderly are at a higher risk for adverse renal effects (Jones & Bartlett. 2020).	Monitor renal function; decreased drug clearance may increase risk of adverse effects (Jones & Bartlet, 2020).
Client Teaching needs (2)	Instruct the patient to stop taking aspirin and notify the provider if any symptoms of stomach or	Store at room temperature in a dry and safe place (Centrum, n.d.) Take with food	Instruct and educate patient including glucose monitoring, proper injection	Educate patient on signs and symptoms of ketoacidosis and urge him to seek	Emphasize the need to take drugs with a meal because absorption is decreased if taken on an

	intestinal bleeding occurs such as bloody or tarry stools, or coughing blood. Consult a provider before taking aspirin with any prescription drug for blood disorder, diabetes, gout, or arthritis (Jones & Bartlett, 2020).	if it causes an upset stomach (Centrum, n.d.).	technique and management of hypoglycemia (Humulin, n.d.). Dispose needles in a FDA-cleared sharps disposal container right away after use (Humulin, n.d.).	medical attention if blood glucose level is less than 250 mg/dL (Jones & Bartlett, 2020). Advise patient to maintain adequate fluid intake and to notify prescriber if patient develops dehydration, has an onset of hunger or thirst, or notices a change in mental status (Jones & Bartlett, 2020).	empty stomach (Jones & Bartlett, 2020). Educate patient not to crush or chew tablets but to swallow them whole (Jones & Bartlett, 2020).

Hospital Medications (5 required)

Brand/ Generic	Coreg/ Carvedilol	Cozaar/ Losartan	Heparin/ Heparin Sodium	KCL in D5W/ Potassium Chloride in 5% dextrose	Maxipime/ Cefepime
Dose	3.125 mg	25 mg	5,000 units	20 mEq at 100 mL/hr	1g in 100 mL 0.9% NaCl at 25 mL/hr
Frequency	2 x daily w/ meals	Once daily	Q 8 Hrs	Continuous	Continuous
Route	PO	PO	Subcutaneous	IV	IV
Class ification	Anti hypertensive	Anti hypertensive	Anticoagulant	Electrolyte replacement	Antibiotic
Mechanism of Action	Reduces cardiac output and tachycardia,	Blocks binding of angiotensin II	Inhibits factor Xa and prevents	Provides a source of water and	Inhibits the final step in the cross-

	causes vasodilation, and decreases peripheral vascular resistance, which reduces blood pressure and cardiac workload (Jones & Bartlett, 2020).	that is a potent vasoconstrictor that stimulates he adrenal cortex to secrete aldosterone. The inhibiting effects of angiotensin II reduce blood pressure (Jones & Bartlett, 2020).	conversion of prothrombin to thrombin. Thrombin is needed for conversion of fibrinogen to fibrin; without fibrin, clots can't form (Jones & Bartlett, 2020).	electrolytes with carbohydrate calories and restores blood glucose levels (Potassium chloride, n.d.). Acts as the major cation in intracellular fluid, activating many enzymatic reactions essential for physiologic processes (Jones & Bartlett, 2020).	linking of peptidoglycan strands. Peptidoglycan makes cell membranes rigid and protective. Without it, bacterial cells rupture and die (Jones & Bartlett, 2020).
Reason Client Taking	To treat mild to severe chronic heart failure of ischemic or cardiomyopathy origin (Jones & Bartlett, 2020).	To manage hypertension	To prevent and treat peripheral arterial embolism, pulmonary embolism, thromboembolic complications associated venous thrombosis and its extension (Jones & Bartlett, 2020).	To replace electrolytes	To treat mild to moderate UTI caused by Escherichia coli (Jones & Bartlett, 2020).
Contra indications (2)	Severe bradycardia History of serious hypersensitivity reactions (Jones & Bartlett,	Aliskiren therapy Hypersensitivity to losartan or its components (Jones &	History of heparin-induced thrombocytopenia Uncontrolled active bleeding	Hyperkalemia Acute dehydration (Jones & Bartlett, 2020).	Hypersensitivity to cefepime, other betalactam antibiotics, or other cephalosporins, penicillins, or

	2020).	Bartlett, 2020).	(Jones & Bartlett, 2020).		their components (Jones & Bartlett, 2020).
Side Effects/ Adverse Reactions (2)	Bradycardia Abdominal pain (Jones & Bartlett, 2020)	Hypotension Angioedema (Jones & Bartlett, 2020).	Melena Thrombocytopenia (Jones & Bartlett, 2020).	Arrhythmias Thrombosis (Jones & Bartlett, 2020).	Nephrotoxicity Encephalopathy (Jones & Bartlett, 2020).
Nursing Considerations (2)	Monitor patients blood glucose level because drug may alter blood glucose level (Jones & Bartlett, 2020). Avoid stopping drug abruptly in patients with hyperthyroidism because thyroid storm may occur (Jones & Bartlett 2020).	Know that in some patients, losartan is more effective when given in 2 divided doses daily; it may be used with other antihypertensives (Jones & Bartlett, 2020). Be aware that patients who have renal artery stenosis or severe heart failure may experience acute renal failure from losartan therapy (Jones & Bartlett, 2020).	Give heparin only by subcutaneous or I.V. route; I.M. use causes hematoma, irritation, and pain (Jones & Bartlett, 2020). Administer subcutaneous heparin into anterior abdominal wall, above the iliac crest, and 5 cm (2 inches) or more away from umbilicus (Jones & Bartlett, 2020).	Review patients medical record because there are many conditions that may predispose patient to develop hyperkalemia and increased sensitivity to potassium (Jones & Bartlett, 2020). Regularly assess patient for signs of hypokalemia such as arrhythmias, fatigue, and weakness, and for signs of hyperkalemia (Jones & Bartlett, 2020).	Monitor patient closely for hypersensitivity reactions (Jones & Bartlett, 2020). Assess bowel pattern daily; severe diarrhea may indicate pseudomembranous colitis (Jones & Bartlett, 2020).

Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Obtain blood pressure prior to administering.	Monitor blood pressure and renal function studies (Jones & Bartlett, 2020). Periodically monitor patient's serum potassium level to detect hyperkalemia (Jones & Bartlett, 2020).	Alternate injection sites, and watch for signs of bleeding and hematoma (Jones & Bartlett, 2020). Expect to periodically check patient's hematocrit and platelet count during entire course of heparin therapy regardless route of administration (Jones & Bartlett, 2020).	Monitor potassium levels and possible characteristic ECG changes (Jones & Bartlett, 2020). Monitor creatinine levels and urine output because adequate renal function is needed for potassium supplementation (Jones & Bartlett, 2020).	Obtain culture and sensitivity test results, if possible and as ordered, before giving drug (Jones & Bartlett, 2020).
Client Teaching needs (2)	Warn patient that the drug may cause dizziness, light-headedness, and orthostatic hypotension; advise him to take precautions (Jones & Bartlett, 2020). Educate patient with diabetes to monitor his glycemic control closely because drug may increase blood glucose level or mask symptoms of hypoglycemia (Jones &	Instruct patient to avoid potassium-containing salt substitutes because they may increase risk for hyperkalemia (Jones & Bartlett, 2020). Educate patient to avoid exercising in hot weather and drinking excessive amounts of alcohol (Jones & Bartlett, 2020).	Inform patient about increased risk of bleeding (avoid injuries, use a soft-bristled toothbrush) (Jones & Bartlett, 2020). Educate patient to report abdominal or lower back pain, black stools, bleeding gums, bloody urine, nosebleeds, and severe headaches (Jones & Bartlett, 2020).	Inform patient that potassium is part of a normal diet and meet the recommended daily intake and not to exceed recommended daily amount of potassium (Jones & Bartlett, 2020). Advise patient to watch stools for changes in color and consistency and to notify prescriber if	Tell patient to immediately report diarrhea (Jones & Bartlett, 2020). Instruct patient and caregiver to immediately report for any change in mental status, development of seizure, difficulty speaking or understanding (Jones & Bartlett, 2020).

	Bartlett, 2020).			they become black, tarry, or red (Jones & Bartlett, 2020).	

Medications Reference (1) (APA):

Centrum: Indications, side effects, warnings. Drugs.com. (n.d.). Retrieved April 9, 2022, from https://www.drugs.com/cdi/centrum.html

Humulin N - FDA prescribing information, side effects and uses. Drugs.com. (n.d.). Retrieved April 9, 2022, from https://www.drugs.com/pro/humulin-n.html#s-34068-7

Jones & Bartlett Learning. (2020). Nurse's drug handbook (19th ed.). Jones & Bartlett Learning.

Potassium chloride in lactated ringers and Dextrose - FDA prescribing information, side effects and uses. Drugs.com. (n.d.). Retrieved April 10, 2022, from https://www.drugs.com/pro/potassium-chloride-in-lactated-ringers-and-dextrose.html#s-34090-1

RxList. (2022, March 31). *Centrum Silver Men Oral: Uses, side effects, interactions & pill images*. RxList. Retrieved April 9, 2022, from https://www.rxlist.com/fdb/drugs/172968/centrum-silver-men-oral-drug.htm

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Alert Unable to confirm time, place, person, and situation No apparent distress Appropriately dressed
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N x☐** **Type:**	 Pink Excessively dry Warm Normal turgor 2+ No rashes Left hand abrasion Wound abrasions on both legs Left and right heel pressure injury 11 Braden Score No drains
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Head and neck are symmetrical, trachea is midline, no deviation. Patients' ears were free of discharge, slightly visible cerumen. Patient did not cooperate for PERRLA assessment. Cornea clear, no drainage. Septum is midline, turbinates' were dry and pink bilaterally. Teeth were within normal limits
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N x☐** **Edema Y x☐ N ☐** **Location of Edema:**	 S1 and S2 were present No murmurs Cardiac rhythm strip revealed sinus tachycardia Pulses are 2+ throughout bilaterally Capillary refill less 3 seconds in all extremities Fingernails and toenails were thick and unkempt No neck vein distention Trace pitting edema in right foot
RESPIRATORY: **Accessory muscle use: Yx☐ N ☐** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):**	 Use of accessory muscles, inspiratory and expiratory. Bilateral crackles over lung bases. No ET Tube

Respiration rate: **FiO2:** **Total volume (TV):** **PEEP:** **VAP prevention measures:**	
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N x☐** **Nasogastric: Y ☐ N x☐** **Size:** **Feeding tubes/PEG tube Y ☐ N x☐** **Type:**	 Diabetic diet Pureed diet, thickened liquids 5'6" ft (167.6 cm) 144 lb (65.6 kg) Bowel sounds are normoactive in all 4 quadrants Last BM, 04/06 No CVA tenderness No abnormalities were found upon inspection for distention, incisions, scars, drains, or wounds. No ostomy, nasogastric or feeding/PEG tubes.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N x☐** **Inspection of genitals:** **Catheter: Y x☐ N ☐** **Type:** **Size:** **CAUTI prevention measures:**	 Tea colored urine Slight sentiments in urine Unable to determine pain with urination. Swelling of the scrotum Patient had urethral catheter and had 190 mL output during clinical 16 french Adherence to hand hygiene Clean around catheter opening Keep drainage bag below bladder Empty drainage bag whenever its full
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Yx☐ N ☐**	 Patient was alert and could only follow simple commands, was unable to determine a true neurovascular assessment Had general ROM in arms bilaterally Medical records indicate patient requires hoyer

Fall Risk: Y x☐ N☐ **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	lift Patient was able to grip hands and tried to remove PICC line at night Fall risk, fall score 16 Patient is total care
NEUROLOGICAL: **MAEW: Y ☐ Nx☐** **PERLA: Y ☐ Nx☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Strong arms bilaterally Unable to assess for PERLA Alert but was unable to confirm time, place, person, and situation Able to follow simple commands Nonverbal Alert and 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):**	Patient is divorced, and did not have any family at the bedside. He held hands with me and even smiled at one point. Was unable to determine developmental level and religion and was not recorded in medical records. As mentioned previously, the patient is divorced, did not have family at the bedside and came from a nursing home, he probably does not have available family support.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0900	114	166/93 Supine left arm	16	99.5	98% on room air
1200	94	128/71 Supine left arm	18	99.7	95% on room air

Vital Sign Trends/Correlation:

The Patient's vital signs were abnormal but stable. His blood pressure was high from 128/71 to 166/93. Hypertension is not listed in the patient's past medical history but he has a family history of congestive heart failure and heart disease so his hypertension may be inherited. His home medications indicate that he takes aspirin daily and he is taking 2 inpatient antihypertensive medications. His pulse was high at 114 then decreased to 94, respiratory rate was 16 and 18, temperature remained consistent at 99.5 to 99.7 degrees Fahrenheit and oxygen was 98% and 95% on room air.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
Was unable to determine a verbal pain assessment. Utilized FLACC Scale "Face, Legs, Activity, Cry and Consolability (FLACC) - used with infants, children, and adults who are not able to self report pain" (Marshfieldclinic, n.d.).	0-10	Generalized pain assessment	Scored 0/10 indicates patient is relaxed and comfortable		
Utilized FLACC Scale	0-10	Generalized pain assessment	Scored 0/10 indicates patient is relaxed and comfortable		

Reference:

Marshfieldclinic.libguides.com. (n.d.). Retrieved April 10, 2022, from https://marshfieldclinic.libguides.com/ld.php?content_id=44969149

IV Assessment (2 Points)

IV Assessment	**Fluid Type/Rate or Saline Lock**
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	20 Gauge Left forearm Placed 4/4/22 at 0841 No signs of pain, tenderness, swelling, erythema, or drainage IV dressing was clean and intact
Other Lines (PICC, Port, central line, etc.)	KCL in D5W 20 mEq at 100 mL/hr Cefepime 1g in 100 mL 0.9% NaCl at 25 mL/ hr
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y x☐ N ☐** **CLABSI prevention measures:**	Triple lumen PICC line 5 French, 36 cm in length Right basilic vein 4/4/22 at 1600 No signs of pain, tenderness, swelling, erythema, or drainage Dressing was clean and intact CUROS cap in place Adherence to hand hygiene Scrub with alcohol for at least 15-20 seconds before assess New cap after medication administration and blood draws

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
875 mL (KCL in D5W at 100 mL/hr + Cefepime at 25 mL/hr) 10% of breakfast	At 1330 urine catheter bag was at 193 mL

(cream of wheat and pureed peaches)	

Nursing Care

Summary of Care (2 points)

Overview of care: P.H. was admitted on 4/4 for complaints of altered mental status. Assessed and observed for improvement or changes in his condition such as vitals and physical assessment with no pertinent findings.

Procedures/testing done: Patient did not have any procedures or testing done during clinical.

Complaints/Issues: Patient had hand mitts and kept trying to remove them.

Vital signs (stable/unstable): Vitals signs were abnormal but stable.

Tolerating diet, activity, etc.: P.H. slightly tolerated a pureed thickened diet with assistance.

Physician notifications: No current Physician update, he had a urology consult for his swollen scrotum.

Future plans for client: Anticipate patient will return to Accolade Nursing Home once discharged.

Discharge Planning (2 points)

Discharge location: Accolade Nursing Home

Home health needs (if applicable):

Equipment needs (if applicable):

Follow up plan: P.H. will need a follow up appointment with his primary care physician.

Education needs: He needs to be educated and reminded to hydrate and to cough and deep breathe to help clear secretions. He also needs to be reminded to swallow with each

bite of food.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidenced by" components ● Listed in order by priority – highest priority to lowest priority pertinent to this client	**Rationale** ● Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** ● How did the client/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.
1. Risk for aspiration related to poor swallowing reflex as evidenced by food retention in sides of his mouth.	Crackles were heard upon lung auscultation which could be a sign of silent aspiration (Swearingen & Wright, 2019).	**1.** Check for retention of food in the sides of the mouth (Swearingen & Wright, 2019). **2.** Monitor the patient for coughing or choking before, during, or after swallowing (Swearingen & Wright, 2019).	**1.** Patient swallows independently without choking. The patient's airway is patent and lungs are clear to auscultation both before and after meals (Swearingen & Wright, 2019).	Patient swallowed food when directed and coughed to help clear the airway. Ongoing goal to maintain patent airway and clear lung auscultation.
2. Ineffective airway clearance related to coughing as evidenced by adventitious	Crackles were heard upon lung auscultation which may indicate an inability to	**1.** Instruct the patient to cough. **2.** Assist the patient with position changes every 2 hours	**1.** Patient demonstrates an effective cough and the patient's airway is free of excessive secretions and	Patient coughed when instructed. Ongoing goal to instruct the patient to effectively cough to help clear the airway.

breath sounds, crackles.	clear secretions (Swearingen & Wright, 2019).	(Swearingen & Wright, 2019).	adventitious breath sounds (Swearingen & Wright, 2019).	
3. Ineffective tissue perfusion related to insufficient blood flow and decreased Hgb and Hct as evidenced by high blood pressure reading of 166/93.	Patients blood pressure was high and was reassessed later in the clinical day and remained on the higher end at 128/71. Patient also had trace pitting edema in the right foot.	**1.** Provide a skin assessment and assess skin temperature, color, and signs of edema. Also assess peripheral pulses. **2**. Closely monitor blood pressure and for changes in cardiac rhythm.	**1.** Patient has adequate peripheral perfusion and is free of edema and has normal heart rhythm or within the patient's baseline.	Administer antihypertensives to maintain adequate tissue perfusion and assess and monitor for changes.
4. Excess fluid volume related to continuous IV infusions as evidenced by hypertension, crackles and trace pitting edema in the right foot.	Patient had 2 continuous IV infusions, was tachycardic, had hypertension, crackles, and had trace pitting edema in the right foot.	**1.** Assess for edema, monitor blood pressure and listen to lung sounds. **2.** Monitor results of BUN and creatinine.	**1.** Patient is free of edema, has normal breath sounds and BUN and creatinine level improves.	Patients BUN and creatinine levels improved from admission. Continuous monitoring of edema in the right foot, blood pressure, listen to lungs sounds, and monitor BUN and creatinine.
5. Impaired skin integrity related to immobility as evidenced by pressure injuries.	Patient had excessively dry skin and had left and right heel pressure injuries.	**1.** Assess patients skin for other signs of breakdown. **2.** Ensure patient is turned every 2 hours (Swearingen & Wright, 2019).	Patient's skin remains non erythemic and intact (Swearingen & Wright, 2019). **1.**	Continuous assessment of the patient's skin and use of draw sheet when repositioning.

Other References (APA):

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

Concept Map (20 Points):

Subjective Data

Accolade reports that P.H. complained of nausea.

Objective Data

Temperature of 102.2 Fahrenheit, blood pressure 81/43, heart rate was 131, and respirations were 24 breaths per minute.
Decreased Hgb 9.3 and 7.8
Decreased Hct 28.8 and 23.9
Elevated WBC 34.40
Elevated Lactic acid 5.1
Abnormal urinalysis with WBCs, RBCs, and leukoesterase
Urine and blood cultures had Escherichia coli growth

Client Information

P.H. is an 83-year-old Caucasian male that was admitted for septic shock. He has Cefepime antibiotic and KCL in D5W IV continuous infusion. He has a medical history of diabetes and history of stress and urge incontinence.

Nursing Diagnosis/Outcomes

- Risk for aspiration related to poor swallowing reflex as evidenced by food retention in sides of his mouth.
  GOAL: Patient swallows independently without choking. The patient's airway is patent and lungs are clear to auscultation both before and after meals (Swearingen & Wright, 2019).
- Ineffective airway clearance related to coughing as evidenced by adventitious breath sounds, crackles.
  GOAL: Patient demonstrates an effective cough and the patient's airway is free of excessive secretions and adventitious breath sounds (Swearingen & Wright, 2019).
- Ineffective tissue perfusion related to insufficient blood flow and decreased Hgb and Hct as evidenced by high blood pressure reading of 166/93.
  GOAL: Patient has adequate peripheral perfusion and is free of edema and has normal heart rhythm or within the patient's baseline.
- Excess fluid volume related to continuous IV infusions as evidenced by hypertension, crackles and trace pitting edema in the right foot.
  GOAL: Patient is free of edema, has normal breath sounds and BUN and creatinine level improves.
- Impaired skin integrity related to immobility as evidenced by pressure injuries.
  GOAL: Patient's skin remains non erythemic and intact (Swearingen & Wright, 2019).

Nursing Interventions

Check for retention of food in the sides of the mouth (Swearingen & Wright, 2019).
Monitor the patient for coughing or choking before, during, or after swallowing (Swearingen & Wright, 2019).

Instruct the patient to cough.
Assist the patient with position changes every 2 hours (Swearingen & Wright, 2019).

Provide a skin assessment and assess skin temperature, color, and signs of edema. Also assess peripheral pulses.
Closely monitor blood pressure and for changes in cardiac rhythm.

Assess for edema, monitor blood pressure and listen to lung sounds.
Monitor results of BUN and creatinine.

Assess patients skin for other signs of breakdown.
Ensure patient is turned every 2 hours (Swearingen & Wright, 2019).