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Lakeview College of Nursing

N321: Adult Health I

Professor Henry

27th October 2025

Demographics

Date of Admission 10/20/2025	Client Initials CL	Age 76 years old	Biological Gender Female
Race/Ethnicity Caucasian	Occupation Retired Pastor	Marital Status Married	Allergies Krill oil
Code Status DNI/DNR	Height 5.2ft	Weight 92.6kg	

Medical History

Past Medical History: A-Fib, Arthritis, bilateral primary osteoarthritis of the knee, COPD, depression, Diabetes mellitus type 2, essential hypertension, malignant, heat valve disease, hyperlipidemia, kidney stones, long-term (current) use of anticoagulants, lower back pain, lumbar radiculopathy, menopause, lumbar spinal stenosis, long nodule, pain radicular lumbar mild major depression, osteoporosis, persistent arterial fibrillation, pneumonia, shingles, sleep apnea LINCARE, spinal stenosis, lumbar region, without neurogenic claudication, Vitamin 12 deficiency anemia.

Past Surgical History: lumbar discectomy, appendectomy, cardioversion, Cath lab (2017), cholecystectomy, laparoscopic (N/A 6/18/2020).

Family History: Colon cancer (maternal grandmother), Diabetes mellitus (father, mother, son, and son), HTN (father, mother, son, and son)

Social History (tobacco/alcohol/drugs, including frequency, quantity, and duration of use): The patient's husband reports she never smoked, she has never used smokeless tobacco, and the patient doesn’t drink alcohol and does not use drugs.

Education: The patient is a college graduate with a degree from Bible college.

Living Situation: living with husband at home.

Assistive devices: Hoyer, gait belt, and walker (at home)

Admission History

Chief Complaint: "Both my legs and hands are swollen, and I've been short of breath for the last few days."

History of Present Illness (HPI)– OLD CARTS

C.L. is a 76-year-old female who presented to the emergency department with complaints of bilateral leg swelling that began about one week ago and has progressively worsened over the past three days. The swelling extends to both lower legs and hands and is described by the patient as tight, heavy, and uncomfortable. She reports that the swelling and shortness of breath worsen when she stands or lies flat for a long time and that elevating her legs provides only mild relief. She took Tylenol at home with slight improvement. The patient denies chest pain, fever, or urinary burning but notes increased fatigue and weakness over the past few days. She stated, *"I was just discharged earlier this month after a urinary infection and heart problem, but now everything feels swollen again, and I can't breathe well"*. The patient rates her overall discomfort as moderate to severe and sought medical attention when the swelling and shortness of breath became noticeably worse despite rest at home.

Admission Diagnosis

Primary Diagnosis: Urinary tract infections (UTI)

Secondary Diagnosis (if applicable): CHF

Pathophysiology

Urinary Tract Infections (UTI)

A urinary tract infection (UTI) occurs when harmful microorganisms, most frequently *Escherichia coli*, invade and proliferate within the typically sterile urinary system (Flores-Mireles et al., 2025). The infection often starts at the urethra and can ascend to the bladder and, in some instances, the kidneys. On a cellular level, uropathogenic *E. coli* attach to uroepithelial cells via fimbriae and pili, triggering an inflammatory response that leads to the release of cytokines. This process results in mucosal irritation and damage to the lining of the urinary tract (Flores-Mireles et al., 2025). Immune-mediated inflammation manifests through typical symptoms such as burning sensations during urination, increased urgency, and discomfort in the suprapubic area. If the infection progresses upwards, it can inflame the renal parenchyma, resulting in pyelonephritis, which is marked by flank pain, fever, and chills (Downey, 2022).

If left untreated, bacteria may enter systemic circulation, potentially resulting in sepsis or systemic inflammatory response syndrome, particularly concerning for immunocompromised individuals or older adults (Downey, 2022). Common clinical signs associated with UTIs include dysuria, heightened frequency of urination, urgency, suprapubic pain, and urine that appears cloudy or has an unpleasant odor. In older patients, nonspecific symptoms like confusion or lethargy might be among the first indications of an ongoing infection (Andreas, 2023). Expected vital sign changes in uncomplicated cases may include a low-grade fever; however, pyelonephritis could present with elevated temperature alongside tachycardia and flank tenderness (Downey, 2022).

Laboratory evaluations typically reveal bacteriuria and pyuria along with positive nitrites on urinalysis due to bacterial nitrate reduction. A slight increase in serum white blood cell count may indicate systemic inflammation (Flores-Mireles et al., 2025). The diagnostic approach encompasses urinalysis followed by urine culture to verify both the presence and type of bacteria involved. A midstream clean-catch urine sample is collected for microscopic examination to detect leukocyte esterase and nitrites. Urine cultures offer definitive identification along with sensitivity testing essential for guiding antibiotic treatment. For recurrent or complicated infections, renal ultrasound or computed tomography (CT) scans can be utilized to exclude blockages or anatomical irregularities (Andreas, 2023).

In this particular case study involving a client diagnosed with *E. coli*-induced cystitis, the following urinalysis, which indicated positive nitrites and leukocyte esterase, along with a high white blood cell count, indicates a UTI diagnosis. Treatment strategies aim at eliminating the infection while alleviating symptoms and reducing the risk of recurrence (Andreas, 2023). First-line antibiotics such as nitrofurantoin, trimethoprim-sulfamethoxazole, or fosfomycin are prescribed based on resistance patterns as well as patient allergies. Complicated infections or cases of pyelonephritis may require fluoroquinolones or intravenous antibiotics for effective management (Flores-Mireles et al., 2025).

Supportive measures involve ensuring ample hydration to help eliminate bacteria from the system, as well as utilizing phenazopyridine for managing urinary pain. The client was prescribed nitrofurantoin at a dosage of 100 mg twice daily over seven days while receiving guidance on proper perineal hygiene practices alongside recommendations for increased fluid consumption and postcoital voiding aimed at preventing recurrence (Downey, 2022). Continued education emphasized completing prescribed antibiotic courses while avoiding irritants like caffeine and recognizing early onset symptoms indicative of relapse (Andreas, 2023). These interventions are consistent with current evidence-based practices designed to facilitate recovery from infections while promoting overall urinary tract health.

References

Andreas, B. (2023). *Urinary tract infection treatment guide for beginners: Tips for urinary tract infection management and recovery*. Independently published.

Downey, A. (2022). *Urinary tract infection (uti): The fact you need to know about the bladder infection (urinary tract infection--uti). symptoms, causes, diagnosis, and treatment*. Independently Published.

Flores-Mireles, A. L., Walker, J. N., Caparon, M., & Hultgren, S. J. (2025). Urinary tract infections: Epidemiology, mechanisms of infection and treatment options. *Nature Reviews Microbiology*, *13*(5), 269–284. https://doi.org/10.1038/nrmicro3432

Pathophysiology References (2) (APA):

Laboratory/Diagnostic Data

Lab Name	Admission Value	Today's Value	Normal Range	Reasons for Abnormal
NT proBNP	**6313.5**	**N/A**	**<450 pg/ml**	Elevated due to CHF

	pg/ml			and fluid overload causing leg and hand edema (Rogers, 2022).
PCO2 (arterial)	**34mmHg**	**N/A**	**35-45 mmHg**	Slightly low from increased respiratory effort related to COPD and shortness of breath (Huether & McCance, 2020).
INR	**1.7**	**N/A**	**0.8-1.1**	Elevated from long-term anticoagulant use (apixaban) for A-fib (Ignatavicius et al., 2021).
PO2 (arterial)	**84mmHg**	**101mmHg**	**85-105mmHg**	Improved oxygen level after O_2 therapy (Huether & McCance, 2020).
RBC	$3.43 \times 10^6/\mu L$	$2.88 \times 10^6/\mu L$	$3.80–5.30 \times 10^6/\mu L$	Low due to anemia and chronic illness (Rogers, 2022).
Hemoglobin (Hgb)	**10.1g/dl**	**8.6 g/dl**	**12-15.8 g/dl**	Low from chronic anemia, poor nutrition,

				and possible fluid overload (Ignatavicius et al., 2021).
Hematocrit	**31.1%**	**28.2%**	**36-47%**	Decreased from anemia and hemodilution caused by CHF (Rogers, 2022)
RDW	**18.2%**	**18.6%**	**11.8-15.5%**	Elevated from variation in RBC size due to mixed anemia (Huether & McCance, 2020)
lymphocytes	**16.6%**	**22.1%**	**18-42%**	Slightly low initially, likely from stress response to infection (Huether & McCance, 2020).
Absolute lymphocytes	**1.03** $\times 10^3/\mu L$	**N/A**	**1.30-3.20** $\times 10^3/\mu L$	Mildly decreased from infection and aging immune response.
potassium	**3.4 mmol/l**	**3.5 mmol/l**	**3.5-5.1mmol/l**	Low from furosemide use and increased urine output (Ignatavicius et al., 2021).

Chloride	**111mmol/l**	**110mmol/l**	**98-107mmol/l**	Slightly high from fluid imbalance and diuretic therapy (Huether & McCance, 2020).
BUN	**27mg/dl**	**31mg/dl**	**10-20mg/dl**	Elevated due to CHF, dehydration, and decreased renal perfusion (Rogers, 2022).
Creatinine	**0.59mg/dl**	**0.62mg/dl**	**0.60-1 mg/dl**	Normal; indicates preserved kidney function despite CHF.
AG ratio	**N/A**	**0.8**	**1-2.2**	Low from hypoalbuminemia and chronic inflammation (Huether & McCance, 2020)
Total protein	**4.6**	**4.8g/dl**	**6-8g/dl**	Low due to poor nutrition and chronic illness (Ignatavicius et al., 2021).
Albumin	**2.3g/dl**	**2.2g/dl**	**3.5-5g/dl**	Low from poor nutrition and CHF-

				related dilution (Rogers, 2022).
Calcium	**7.6mg/dl**	**7.8mg/dl**	**8.7-10.5 mg/dl**	Low from low albumin and nutritional deficit (Huether & McCance, 2020).
MCV	**N/A**	**97.9fl**	**82.96fl**	Slightly high from vitamin B12 deficiency anemia (Ignatavicius et al., 2021).

Current Diagnostic Test & Purpose	**Clients Signs and Symptoms**	**Results and correlate to client diagnosis and condition**
XR chest single view portable. **Purpose:** Evaluate heart size, device placement, and lung congestion related to CHF (Huether & McCance, 2020). **Date**: 10/20/2025 8:03PM	Patient shows shortness of breath, bilateral leg and hand swelling, and history of CHF.	Heart enlarged and stable; hazy left basilar consolidation; left pleural effusion and/or atelectasis. Correlates with CHF and pulmonary congestion.

XR chest single view portable • **Purpose** Evaluate pleural effusion and lung status related to CHF (Huether & McCance, 2020). • **Date**: 10/27/2025 at 07:13 am	Patient shows ongoing dyspnea, fatigue, and swelling of lower extremities.	Test performed; **results pending** at the time of assessment. Purpose aligns with CHF evaluation and fluid status monitoring.

Diagnostic Test Reference (1) (APA):

References

Huether, S. E., McCance, K. L., & Elsevier. (2020). *Understanding pathophysiology - text and elsevier adaptive quizzing package* (7th ed.). Elsevier - Health Sciences Division.

Ignatavicius, D. D., Workman, M. L., Rebar, C. R., & Heimgartner, N. M. (2021). *Medical-surgical nursing concepts for interprofessional collaborative care* [10th ed.]. Elsevier.

Rogers, J. (2022). *Mccance & huether's pathophysiology - e-book the biologic basis for disease in adults and children* (9th ed.). Elsevier Health Sciences.

Active Orders

Active Orders	Rationale
Daily weights	Monitor for fluid retention and evaluate heart

	failure status.
Strict I&O	Track fluid status and prevent overload or dehydration.
Telemetry monitoring	Detect arrhythmias related to CHF and A-fib.
Orthostatic BP	Check for postural hypotension and prevent falls.
Incentive spirometry	Promote to lung expansion and prevent atelectasis.
Pulse oximeter	Monitor oxygen levels and detect hypoxia early.
Daily labs	Assess renal functions, electrolytes, and infections.
POC blood glucose AC & HS	Manage glucose for diabetes and medication effects.
Adult diet-modified texture (IDDI level: soft, bite-sized)	Support safety swallowing and adequate nutrition while preventing aspiration.
Elevated head of the bed	Improve breathing and decrease pulmonary congestion
RT assessment	Evaluate lung status and adjust breathing treatments.
Wound/ostomy consult	Promote healing and prevent infection.

Hospital Medications (Must List ALL)

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
Furosemide (Lasix)	40 mg IV twice daily with meals	*Loop diuretic / antihypertensive.* Inhibits Na^+ and Cl^- reabsorption in the loop of Henle to increase urine output (*Ignatavicius et al., 2021*).	To reduce CHF-related edema and shortness of breath (*McCance et al., 2022*).	Low BP (96/47); $K^+ <$ 3.5 mmol/L.	Dizziness; hypokalemia.	Assess BP and K^+ level; assess lung sounds and presence of edema.
Apixaban (Eliquis)	5 mg PO twice daily	*Factor Xa inhibitor / anticoagulant.* Prevents	Prevents stroke and embolism in A-fib	Active bleeding; platelets < 100 000.	Bleeding; anemia.	Assess for bleeding (stool, urine,

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
		thrombus formation (*Ignatavicius et al., 2021*).	(*McCance et al., 2022*).			gums); assess CBC and Hgb/Hct.
Metoprolol succinate (Toprol-XL)	50 mg PO daily	*Beta-1 blocker / antihypertensive.* Decreases HR and BP to reduce cardiac workload (*Ignatavicius et al., 2021*).	Controls A-fib rate and decreases myocardial oxygen demand (*McCance et al., 2022*).	HR < 60 bpm; SBP < 90 mmHg.	Bradycardia; fatigue.	Assess apical pulse for 1 min; assess BP before giving.
Digoxin (Lanoxin)	125 mcg PO daily	*Cardiac glycoside / antiarrhythmic.*	Improves CO and controls	HR < 60 bpm; $K^+ < 3.5$.	Bradycardia; visual halos.	Assess apical pulse and

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		Increases myocardial contractility and slows HR (*Ignatavicius et al., 2021*).	A-fib rate (*McCance et al., 2022*).			K^+; assess digoxin level if available.
Atorvastatin (Lipitor)	10 mg PO daily	*HMG-CoA reductase inhibitor / lipid-lowering agent.* Reduces LDL and cholesterol synthesis (*Ignatavicius et al., 2021*).	Lowers cholesterol to prevent cardiac events (*McCance et al., 2022*).	Active liver disease; elevated LFTs.	Muscle pain; ↑ LFTs.	Assess liver enzymes; assess for muscle tenderness.
Sertraline	125 mg PO	*SSRI /*	Manages	Hyponatremia	Nausea;	Assess

Medication (Brand/Generic)	Dose/ Frequency/ Route	Pharmacologic & Therapeutic Class / Action	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administration (2)
(Zoloft)	daily	*antidepressant* .Increases serotonin availability in the CNS (*Ignatavicius et al., 2021*).	depression and improves mood.	; MAOI use.	insomnia.	mood and affect; assess Na^{+} level before giving.
Gabapentin (Neurontin)	300 mg PO TID	*Anticonvulsant / neuropathic pain agent.* Modulates Ca^{2+} channels to decrease nerve excitability (*Ignatavicius et al., 2021*).	Relieves neuropathic pain related to diabetes.	Renal impairment; CNS depression.	Drowsiness; dizziness.	Assess pain level; assess alertness and balance.
Insulin glargine	4 units SQ BID	*Long-acting insulin /*	Maintains fasting	Hypoglycemia; poor oral	Tremor; sweating.	Assess blood

Medication (Brand/Generic)	Dose/ Frequency/ Route	Pharmacologic & Therapeutic Class / Action	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administration (2)
(Lantus)		*antidiabetic.* Facilitates glucose uptake by cells (*Ignatavicius et al., 2021*).	blood glucose in diabetes (*McCance et al., 2022*).	intake.		glucose; assess meal intake.
Insulin lispro (Humalog)	2–12 units SQ TID after meals and 2–6 units HS	*Rapid-acting insulin / antidiabetic.* Promotes glucose uptake after meals (*Ignatavicius et al., 2021*).	Controls post-meal blood glucose (*McCance et al., 2022*).	Hypoglycemia; skipping meals.	Dizziness; sweating.	Assess blood glucose; assess meal availability.
Allopurinol (Zyloprim)	100 mg PO daily	*Xanthine oxidase inhibitor / antigout*	Prevents gout and hyperurice	Renal dysfunction; dehydration.	Rash; ↑ LFTs.	Assess renal labs (BUN, Cr);

Medication (Brand/Generic)	Dose/ Frequency/ Route	Pharmacologic & Therapeutic Class / Action	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administration (2)
		agent. Decreases uric acid production (*McCance et al., 2022*).	mia.			assess hydration.
Budesonide – Formoterol (Symbicort)	2 puffs inhalation BID	*Corticosteroid + LABA / bronchodilator.* Reduces airway inflammation and bronchoconstriction (*Ignatavicius et al., 2021*).	Improves breathing and prevents COPD exacerbation.	Uncontrolled arrhythmia; acute attack.	Tremor; oral thrush.	Assess RR and lung sounds; assess ability to use inhaler.
Tiotropium (Spiriva Respimat)	2 puffs inhalation daily	*Anticholinergic / bronchodilator.* Relaxes airway	Maintains airway patency in	Glaucoma; urinary retention.	Dry mouth; tachycardi	Assess RR and breath sounds;

Medication (Brand/Generic)	Dose/ Frequency/ Route	Pharmacologic & Therapeutic Class / Action	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administration (2)
		smooth muscle (*Ignatavicius et al., 2021*).	COPD.		a.	assess voiding pattern.
Miconazole 2 % Powder	Topical BID	*Antifungal / topical agent.* Disrupts fungal cell membrane integrity (*Ignatavicius et al., 2021*).	Prevents yeast infection under skin folds.	Open lesions; irritated skin.	Burning; redness.	Assess skin folds for rash; assess cleanliness before applying.
Cyanocobalamin (Vitamin B12)	1 000 mcg IM weekly	*Vitamin supplement.* Supports RBC production and nerve function (Tyche, 2022).	Prevents B12 deficiency anemia.	Liver disease; polycythemia vera.	Injection site pain; headache.	Assess Hgb/Hct; assess injection site.
Folic Acid	1 mg PO daily	*Vitamin*	Prevents	Untreated	Rash;	Assess

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
(Folvite)		*supplement.* Promotes RBC and DNA synthesis (*Ignatavicius et al., 2021*).	folate-deficiency anemia.	B12 deficiency; renal failure.	flatulence.	CBC; assess dietary intake.
Multivitamin-Minerals	1 tablet PO daily	*Dietary supplement.* Provides essential nutrients for recovery (Tyche, 2022).	Maintains nutrition during hospitalization.	Renal impairment; hypervitaminosis.	Nausea; constipation.	Assess swallowing ability; assess tolerance.
Medication (Brand/Generic)	Dose/ Frequency/ Route	*Pharmacologic & Therapeutic Class / Action*	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administra

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
						tion (2)
Acetaminophen (Tylenol)	650 mg PO every 6 hrs PRN	*Non-opioid analgesic / antipyretic. Inhibits prostaglandin synthesis in the CNS to reduce pain and fever* (Tyche, 2022)	For mild pain or fever management during hospitalization.	Liver disease; chronic alcohol use.	Nausea; hepatotoxicity.	Assess pain or temperature; assess total acetaminophen intake in 24 hrs.
Albuterol (Proventil, Ventolin)	2.5 mg nebulization every 6 hrs. PRN	*Beta-2 adrenergic agonist / bronchodilator. Relaxes airway smooth muscle to improve airflow* (Tyche, 2022) *).*	Relieves wheezing and shortness of breath in COPD.	Uncontrolled tachycardia; cardiac arrhythmia.	Tremor; palpitations.	Assess RR and O_2 saturation; assess lung sounds before and after inhalation.

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
Ondansetron (Zofran)	4 mg IV/PO every 6 hrs PRN	*Serotonin 5-HT3 receptor antagonist / antiemetic. Blocks serotonin receptors to prevent nausea and vomiting (Ignatavicius et al., 2021).*	Used for nausea or vomiting during illness.	Prolonged QT interval; hepatic impairment.	Headache; constipation.	Assess nausea level and timing; assess ECG or cardiac rhythm if QT prolonged.
Hydrocodone–Acetaminophen (Norco)	5–325 mg PO twice daily PRN	*Opioid analgesic / pain reliever. Alters CNS pain perception and produces sedation* (Tyche, 2022).	For severe pain not relieved by non-opioids.	Respiratory rate < 12/min; liver impairment.	Sedation; constipation.	Assess pain score; assess RR and bowel pattern before giving.

Medication (Brand/Generic)	**Dose/ Frequency/ Route**	**Pharmacologic & Therapeutic Class / Action**	**Reason for Use**	**Contraindications (2)**	**Side/ Adverse Effects (2)**	**Key Nursing Assessments Prior to Administration (2)**
Tramadol (Ultram)	50 mg PO twice daily PRN	*Opioid-like analgesic / pain reliever. Binds to μ-receptors and inhibits serotonin/norepinephrine reuptake (Ignatavicius et al., 2021).*	Relieves moderate pain.	Seizure disorder; RR < 12/min.	Drowsiness; dizziness.	Assess pain level; assess RR and alertness before administration.
Dextrose 50% Solution	12.5 g IV PRN	*Carbohydrate / hypertonic solution. Rapidly raises blood glucose levels* (Tyche, 2022) .	Treats acute hypoglycemia.	Hyperglycemia; intracranial hemorrhage.	Vein irritation; hyperglycemia.	Assess blood glucose; assess IV patency before administrat

Medication (Brand/Generic)	Dose/ Frequency/ Route	Pharmacologic & Therapeutic Class / Action	Reason for Use	Contraindications (2)	Side/ Adverse Effects (2)	Key Nursing Assessments Prior to Administration (2)
						ion.
Glucagon Emergency Kit	1 mg IM/SQ PRN	*Pancreatic hormone / antihyperglycemic agent. Stimulates hepatic glycogen breakdown to increase glucose* (Tyche, 2022). .	For severe hypoglycemia when client cannot take PO glucose.	Pheochromocytoma; insulinoma.	Nausea; vomiting.	Assess blood glucose; assess level of consciousness.
Glucose Gel (Glucose 40%)	15 g PO PRN	*Carbohydrate / oral glucose agent. Rapidly increases blood sugar through mucosal absorption* (Peeriga, 2024).	Treats mild hypoglycemia in alert client.	Unconsciousness; swallowing difficulty.	Nausea; rebound hyperglycemia.	Assess blood glucose level; assess ability to swallow safely.

APA: References

Ignatavicius, D. D., Workman, M. L., Rebar, C. R., & Heimgartner, N. M. (2020). *Medical-surgical nursing - elsevier ebook on vitalsource (retail access card) concepts for interprofessional collaborative care* (10th ed.). Elsevier Health Sciences.

Peeriga, R. (2024). Reverse pharmacognosy: Exploration of lead in drug discovery. In *Futuristic trends in pharmacy & nursing volume 3 book 5* (pp. 575–591). Iterative International Publishers, Selfypage Developers Pvt Ltd. https://doi.org/10.58532/v3bapn5ch51

Tyche, S. (2022). *Nursing drug handbook2022*. Independently Published.

Prioritize Three Hospital Medications

Medications	Why this medication was chosen	List 2 side effects. These must correlate to your client
1.Furosemide (Lasix)	Used to reduce CHF-related fluid overload causing +3 leg edema and shortness of breath; helps remove excess fluid and improve oxygenation (*Ignatavicius et al., 2021; McCance et al., 2022*).	1. Hypokalemia (client at risk due to diuresis and weakness). 2. Hypotension (client's BP already low at 96/47).
2.Apixaban (Eliquis)	Given to prevent clot and	. Bleeding (increased risk

	stroke in client with history of atrial fibrillation with RVR; reduces risk of thromboembolism (*Ignatavicius et al., 2021*).	with age). 2. Anemia (from long-term anticoagulation)
3. Ceftriaxone (Rocephin)	treats urinary tract infection causing confusion, cloudy urine, and odor; prevents infection from progressing to sepsis (Rogers, 2022)	1. Diarrhea (common antibiotic effect). 2. Elevated liver enzymes (risk in older adults).

Medications Reference (1) (APA)

Huether, S. E., McCance, K. L., & Elsevier. (2020). *Understanding pathophysiology - text and elsevier adaptive quizzing package* (7th ed.). Elsevier - Health Sciences Division.

Ignatavicius, D. D., Workman, M. L., Rebar, C. R., & Heimgartner, N. M. (2021). *Medical-surgical nursing concepts for interprofessional collaborative care* [10th ed.]. Elsevier.

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Physical Exam

HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:**	**GENERAL:**

Orientation: **Distress:** **Overall appearance:** **Infection Control precautions:** **Client Complaints or Concerns:**	Alert and oriented ×1 to self only. Responds to verbal stimuli. No signs of acute distress noted; appears calm but fatigued. Well-groomed and appropriately dressed. **Isolation:** Standard precautions. **Precautions:** Gloves, gown, wash hands with soap and water. **Chief Complaint:** Shortness of breath for a few hours, worse with activity, relieved by oxygen; reports left-sided chest pain.
VITAL SIGNS: **Temp:** **Resp rate:** **Pulse:** **B/P:** **Oxygen:** **Delivery Method:**	Vitals: **Temp**: 97F, tympanic **Respiration**: 20/min **Pulse**: 57/min **b/p**: 96/47, supine, R arm **O2**: 96%, room air
PAIN ASSESSMENT: **Time:** **Scale:**	**Pain:** At 7:15 Am vitals,

Location: **Severity:** **Characteristics:** **Interventions:**	**Scale: 6/10.** **Location:** Left side of chest. **Severity:** Moderate. **Characteristics:** Dull, aching pain; worsens with activity; relieved slightly by rest/oxygen. **Interventions:** Administered Tylenol as requested; monitor pain and reassess after medication.
IV ASSESSMENT: **Size of IV:** **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:** **Fluid Type/Rate or Saline Lock:**	IV Assessment • **Location**: o R, cephalic vein • **Size**: 18g • **Date**: 10/20/2025 • **Patency**: able to be flushed, blood return noted • **Signs**: dry, clean and intact, no signs of redness, pain or infiltration • **Dressing**: clean, dry, intact Fluid Type: saline lock.
INTEGUMENTARY:	

Skin color: **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score: 8** **Drains present: Y☐ N ☐** **Type:**	**INTEGUMENTARY:** **Color:** Usual for ethnicity. **Character:** Clean, dry, intact; normal quantity, distribution, and texture of hair. **Temperature:** Warm and dry upon palpation. **Turgor:** Within 2 seconds. **Rashes/Drains:** No rashes; no drains noted. **Bruises:** Present on arms from IV attempts. **Wounds:** Braden scale 8 (high risk); wound present on left chest side/breast.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head/Neck: Head is normocephalic and symmetrical. Face symmetrical; trachea midline without deviation. Thyroid not palpable.non-tender, no erythema or drainage. **Ears:** External ears symmetrical, without

	deformities, lumps, or lesions. Bilateral canals clear; no swelling, redness, or drainage. Reports no tinnitus. **Eyes:** Sclera white, cornea clear bilaterally. Pupils equal, round, reactive to light and accommodation (PERRLA). No periocular lumps or lesions; no discharge or discoloration. **Nose:** Septum midline, nares moist and pink. No bleeding or drainage. Frontal sinuses non-tender. Olfactory function intact; nares patent. **Mouth/Throat:** Oral mucosa moist and pink; no lesions. Tonsils 2+ bilaterally; uvula midline. Swallowing intact. Tongue pink. Patient edentulous; uses 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:**	**Heart Sounds:** S1 and S2 present; no murmurs. **Rhythm: Irregular, with occasional skipped beats. **Peripheral Pulses:** 2+ bilaterally. **Capillary Refill:** <3 seconds in fingers and toes bilaterally. **Neck Veins:** No jugular venous distention

	(JVD). **Extremities:** Pitting edema 2+ bilaterally on feet; blanchable.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Normal, regular, unlabored, symmetrical respirations. Breath sounds clear bilaterally anteriorly and posteriorly, no wheezes, crackles, or rhonchi. No accessory muscle use
GASTROINTESTINAL: **Diet at home:** **Current Diet:** **Is Client Tolerating Diet?** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** 10/27/2025 **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	GASTROINTESTINAL: **Diet at Home:** Regular diet. **Current Diet:** Adult diet modified bite size. **Is Client Tolerating Diet?** Yes, tolerating without nausea or vomiting. **Height:** 5′2″ **Weight:** 92.6 kg **Auscultation (Bowel sounds):** Present in all four quadrants, normoactive. **Last BM:** 10/27/2025 **Palpation:** No tenderness, masses, or

	organomegaly noted. **Inspection:** **Distention:** None observed **Incisions:** Old surgical scars present (appendectomy, cholecystectomy laparoscopic, lumbar discectomy) **Scars:** As above **Drains:** None **Wounds:** Wound present on left chest side/breast; Braden scale 8 (high risk) **Ostomy:** N ☒ **Nasogastric:** N ☒ **Size:** N/A **Feeding tubes/PEG tube:** N ☒ **Type:** N/A
GENITOURINARY:	Genitourinary

Color: **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	**Color:** Yellow **Character:** Clear **Quantity of urine:** Frequent **Pain:** No pain upon urination **Dialysis:** Not applicable **Catheter:** None
Intake (in mLs) **Output (in mLs)**	Intake**:** 337 mL PO at 11:20 AM Output**:** 200 mL voided
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score: 99 (high fall risk)** **Activity/Mobility Status:** **Activity Tolerance:** **Independent (up ad lib)** **Needs assistance with equipment** **Needs support to stand and walk**	Musculoskeletal: **Neurovascular:** Nails without clubbing or cyanosis; all extremities warm, dry, and symmetrical. **Range of Motion (ROM):** Limited; able to perform passive and some active ROM while in bed. **Devices:** None used; patient remains in bed. **Strength:** 2+ in all extremities; weak hand grip, pedal pushes and pulls present but

	limited. **Mobility:** Bedbound; unable to stand or ambulate independently, requires full assistance for repositioning. **ADL Assistance:** Dependent for all activities of daily living. **Fall Risk:** High (score 99).
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no - Legs ☒ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	MAEW: Yes ☒ (Moves all extremities weakly) **PERRLA:** Yes ☒ (Pupils equal, round, and reactive to light and accommodation) **Strength Equal:** No ☒ (Arms 2+, Legs/Feet 1+) **Orientation:** A&O ×1 (to person only); confused to place, time, and situation **Mental Status:** Confused, disoriented; responds slowly and inconsistently to verbal

	cues **Speech:** Slurred and low in tone; difficult to understand **Sensory:** Responds to painful stimuli; decreased sensation in lower extremities **LOC:** Lethargic and hard to arouse; requires repeated verbal and tactile stimulation
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):**	Coping method(s): Relies on husband Mat for emotional support; was independent at home before hospitalization.Developmental level: Integrity vs. Despair.Religion & meaning to patient: Christian; former pastor, faith provides strength and comfort.Personal/Family Data: Lives at home with husband; has two married sons and one 7-year-old granddaughter; enjoys attending church, visiting friends, and

	going out.

Discharge Planning

Discharge location: Discharge was planned for October 25 but delayed due to medical instability. Discharge will be either home with husband or to a nursing home, depending on condition at discharge.

Home health needs: Home health nurse for medication management, infection monitoring, and assistance with hygiene and mobility.

Equipment needs: Hoyer lift, gait belt, walker, and possible home oxygen.

Follow-up plan: Follow up with the primary care provider within one week and the urology if the infection persists.

Education needs:

- Finish all antibiotics as prescribed.
- Increase fluids as tolerated.
- Maintain proper perineal hygiene.
- Empty bladder often and after activities.
- Avoid caffeine and bladder irritants.
- Report burning, odor, or fever to the provider.
- Continue good nutrition, rest, and fall precautions.

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Nursing Process
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	**Rationale** • Explain why the nursing diagnosis was chosen	**Outcome Goal (1 per dx)**	**Interventions (2 per goal)**	**Evaluation of interventions**
Acute confusion related to infection and hospitalization as evidenced by A&O×1 (oriented to person only) and need for collateral history from spouse (Phelps, 2020).	UTI and acute illness in older adults cause temporary confusion (Power-Kean et al., 2022)	By 5 PM, client will stay safe and show improved or stable orientation with staff cueing.	• Reoriented client frequently; used clock/calendar and husband's help. • Kept bed low, call light within reach, bed alarm on.	Client remained safe, no falls; needed reminders to time/place. Goal partially met.
Excess fluid volume	CHF decreases	By 5 PM,	• Gave	Edema +2, urine

related to decreased cardiac output secondary to CHF as evidenced by +3 bilateral LE edema and SOB with activity (Phelps, 2020).	CO, causing fluid retention (Power-Kean et al., 2022).	edema will improve (+3 → +2) and $SpO_2 \geq 94\%$.	furosemide 40 mg IV as ordered; monitored urine and lung sounds. • Elevated legs on pillows and paced activity with rest.	↑, SpO_2 96% RA, client said "I can breathe better." Goal met.
Impaired urinary elimination r/t bladder infection AEB cloudy, odorous urine and frequency.	Infection irritates bladder mucosa, causing frequency and odor (Power-Kean et al., 2022)	By 5 PM, urine will be clearer and voiding comfortable.	• Administered ceftriaxone IV as prescribed. • Encouraged voiding q2–3 hr. and monitored urine color/odor.	Urine clearer, odor ↓, voided q3 hr. without distress. Goal met.

APA:

References

Phelps, L. L. (2020). *Sparks & taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Power-Kean, K., Zettel, S., El-Hussein, M. T., & Kramer, M. (2022). *Study guide for huether and mccance's understanding pathophysiology, canadian edition - e-book study guide for huether and mccance's understanding pathophysiology, canadian edition - e-book*. Elsevier Health Sciences.

Nursing Process Prioritization	**Rationale**
1. . Excess Fluid Volume	Prioritized first because fluid overload directly affects oxygenation and cardiac workload, increasing the risk for pulmonary edema and respiratory distress. (Huether & McCance, 2020).
2. Acute Confusion	Second, as altered mental status increases safety risk and may result from infection or hypoxia, requiring prompt assessment and intervention. (Phelps, 2020).
3. Impaired Physical Mobility	Third, because weakness and limited mobility increase risk for pressure injury and delayed recovery but are less immediately life-threatening. (Phelps, 2020).

Other References (APA):

Phelps, L. L. (2020). *Sparks & taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Huether, S. E., McCance, K. L., & Elsevier. (2020). *Understanding pathophysiology - text and elsevier adaptive quizzing package* (7th ed.). Elsevier - Health Sciences Division.