N311 Care Plan 5

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N311: Foundations of Professional Practice

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Demographics (5 points)

Date of Admission 4/1/24	Client Initials L.T.	Age 76	Gender Female
Race/Ethnicity White	Occupation Neff Cleaners	Marital Status Divorced	Allergies Amlodipine
Code Status DNR	Height 5'4"	Weight 180 lbs.	

Medical History (5 Points)

Past Medical History: High cholesterol and Hypertension

Past Surgical History: Colon Resection Laparoscopic

Family History: Not on file

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

Quit smoking, never used smokeless tobacco, no alcohol or drug use.

Admission Assessment

Chief Complaint (2 points): Shortness of breath, cough

History of Present Illness – OLD CARTS (10 points):

Patients' symptoms first started Friday 3/29/24. The pain was in her chest when she was breathing. It was a constant, sharp pain that made her feel like she could not breathe. She had a fever and chills. The pain would worsen with movement or any physical activity. Patient uses an inhaler and stated that it helped relieve the pain when she used it and would rest. She has not had any prior treatment than coming in to be seen on 4/1/24. Pain was a 9/10 on the numerical pain scale.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Sepsis

Secondary Diagnosis (if applicable): Influenza

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

Pathophysiology References (2) (APA):

Sepsis

Sepsis appears at the cellular level by abnormalities in blood flow, coagulation, which is the blood clotting. (Rogers, 2022). Changes also occur in endothelium tissue function (endothelium forms on the inside of blood vessels). The release of pro-inflammatory chemicals by cells in reaction to the presence of pathogenic microbes seems to be the initial cause of these alterations. TNF-alpha causes widespread vasodilation, hypotension, an elevated heart rate, and a fall in blood pH in sepsis, which is a bloodstream infection (Capriotti, 2020, p. 164). A very common fungus that can be a cause of sepsis is Candida, which is bacteria that is commonly found in the GI and vaginal tracts (Capriotti, 2020, p. 201). Bacteria is the most common cause of this infection, but it can also be through viral, fungal, and parasites. A susceptible host with reduced immune function may experience a broad spread of Candida within the body, leading to severe sepsis. Enormous bacterial loads trigger massive cytokine production, especially TNF and ILs, which lead to shock, disseminated intravascular coagulation, and potentially fatal outcomes.

Some of the common symptoms that happen at the beginning of infection is an increase in heart rate, respirations, and either and increase or decreased temperature. (Rogers, 2022). If the infection becomes severe, you may notice dizziness, decrease urine output, and even see an extreme drop in blood pressure and this is very concerning. Some other symptoms that can occur are decreased mental status, excessive sweating, lightheadedness, chills/shivering (Mayo Clinic, 2023). This also could be related to having a UTI, so painful urination can occur as well.

In some cases, diagnosing sepsis can be difficult (Fulton et al, 2024). Typically, the tests that are done are Complete Blood Count, which measures the quality and number of RBC, WBC, and platelets. If a person has a White Blood Cell count that is high, this is a good indication for an infection. A chemistry panel, which measures the substances in the blood. The liver function

test is a blood test that can show you if the liver is properly working. This is due to the fact that

the liver can filter things out.

Resources

Capriotti, T. (2020). *Davis Advantage for Pathophysiology Introductory Concepts and Clinical Perspectives.* F.A. Davis.

Fulton II, M. R., Zubair, M., & Taghavi, S. (2024). *Laboratory Evaluation of Sepsis*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK594258/#:~:text=A %20laboratory%20workup%2C%20including%20CBC%2C%20chemistry%20panel %2C

Mayo Clinic. (2023, February 10). *Sepsis - symptoms and causes*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/sepsis/symptoms-causes/syc-20351214

Rogers, K. (2022, August 19). *sepsis | Definition, Causes, Diagnosis, & Treatment*. Encyclopedia Britannica. https://www.britannica.com/science/sepsis

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC <mark>Highlight All Abnormal Labs</mark>—**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	4.4-5.8	4.88	N/A	
Hgb	13-16.5	13.9	N/A	
Hct	38-50	42.6	N/A	
Platelets	140-440	320	N/A	
WBC	4-12	12.70	N/A	The reason why her WBC count could be increased is due to an infection (Pagana, 2019, p. 977).
Neutrophils	40-68	90.6	N/A	This could be increase due to stress and infection (Pagana, 2019, p. 977).
Lymphocytes	19-49	4.4	N/A	The reason for a low count is related to having sepsis (Pagana, 2019, p. 978).
Monocytes	3-13	4.6	N/A	
Eosinophils	0-8	N/A	N/A	
Bands	N/A	N/A	N/A	

Chemistry <mark>Highlight All Abnormal Labs</mark>—**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	137	N/A	
K+	3.5-5.1	4.1	N/A	
Cl-	98-107	103	N/A	
CO2	22-30	20	N/A	The low CO2 can be related to shock or starving (Pagana, 2019, p. 198). This would make since due to my patient saying she has not been eating much.

Glucose	70-99	<mark>125</mark>	N/A	An increase in glucose could be related to an acute stress response (Pagana, 2019, p. 464). This could be due to the body being stressed because of the infection that is occurring.
BUN	8-26	<mark>31</mark>	N/A	A high BUN could be an indication that the patient has Sepsis (Pagana, 2019, p. 156).
Creatinine	0.60-1.00	<mark>1.77</mark>	N/A	A high level of this could also mean that the patient is dehydrated or has sepsis (Pagana, 2019, p. 156).
Albumin	3.5-5.0	4.0	N/A	
Calcium	8.7-10.5	9.8	N/A	
Mag	1.6-2.6	N/A	N/A	
Phosphate	N/A	N/A	N/A	
Bilirubin	0.2-1.2	0.2	N/A	
Alk Phos	40-150	134	N/A	

Urinalysis <mark>Highlight All Abnormal Labs</mark>—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	Yellow, clear	Yellow, clear	N/A	
pH	5-9	5.0	N/A	
Specific Gravity	1.003-1.030	<mark>>1.030</mark>	N/A	This could mean that the patient is dehydrated. A high amount of protein in the urine can also lead to this (Ramirez, 2021).
Glucose	Negative	Negative	N/A	
Protein	Negative	<mark>Trace</mark>	N/A	A symptom of this could be shortness of breath (Cleveland Clinic, 2022). This relates to my

				client because that was their chief complaint.
Ketones	Negative	Negative	N/A	
WBC	0-5	N/A	N/A	
RBC	0-2	N/A	N/A	
Leukoesterase	N/A	N/A	N/A	

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

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative with no growth	Negative	N/A	
Blood Culture	Negative with no growth	Negative	N/A	
Sputum Culture	Negative with no growth	N/A	N/A	
Stool Culture	Negative with no growth	N/A	N/A	

Today's lab values are N/A due to no labs being done since the admission labs.

Lab Correlations Reference (1) (APA):

Cleveland Clinic. (2022, July 18). *Proteinuria: Causes, Symptoms, Tests & Treatment*.

Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/16428-proteinuria

Ramirez, E. (2021, December 15). *Urine specific gravity test: What is it, and what do results*

mean? Www.medicalnewstoday.com.

https://www.medicalnewstoday.com/articles/322125#:~:text=Causes%20of%20high

%20readings

Kathleen Deska Pagana, Timothy James Pagana, & Theresa Noel Pagana. (2019). *Mosby's diagnostic and laboratory test reference* (14th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (10 points): Chest X-Ray (2 views) Lungs- Mild pulmonary congestion, bilateral hilar calcification. CT scan- Lungs looked patchy.

An X-Ray of the chest can rule out other potential causes of dyspnea and confirm the diagnosis of pulmonary edema (Mayo Clinic, 2022). Usually when a medical professional detects this pulmonary edema, this test is performed initially. The reason why this can make It hard for them to breath is because all of the fluid that collects in the air sacs in our lungs (Mayo Clinic, 2022). The patchiness on the CT scan can indicate that there is something wrong with the lungs. This could mean there is a disease, condition, or cancer in the lungs (Groth, 2024).

Diagnostic Imaging Reference (1) (APA):

Groth, L. (2024, March 30). *What You Need to Know About Ground Glass Opacity*. Health. https://www.health.com/condition/infectious-diseases/coronavirus/ground-glass-opacities-covid-19#:~:text=GGOs%20show%20up%20as%20lighter

Mayo Clinic. (2022, May 27). *Pulmonary edema - symptoms and causes*. Mayo Clinic; Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/pulmonary-edema/symptoms-causes/syc-20377009

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

Medications (5 required)

Brand/	benzonatate	azithromyci	ceftriaxone	albuterol	lisinopril

Generic	(Tessalon)	n (Zithromax)	(Rocephin)	(Proventil HFA, Ventolin HFA)	(Prinivil, Zestril)
Dose	100 mg (1 tablet)	250 mg (1 tablet)	2 g	2 puffs	40 mg (2 tablets)
Frequency	3 times daily	Every 24 hours	Every 24 hours	Every 4 hours, PRN	Once daily
Route	Oral	Oral	Intravenous	Inhalation	Oral
Classification	Pharmacologic: Antitussives Therapeutic: Cough suppressant (Drug Bank, 2024)	Pharmacologic: Macrolide Therapeutic: Antibiotic (Jones & Bartlett, 2023, p. 132).	Pharmacologic: Third-Generation cephalosporin Therapeutic: Antibiotic (Jones & Bartlett, 2023, p. 246).	Pharmacologic: Adrenergic Therapeutic: Bronchodilator (Jones & Bartlett, 2023, p. 34)	Pharmacologic: ACE inhibitor Therapeutic: Antihypertensive (Jones & Bartlett, 2023, p. 809)
Mechanism of Action	A peripherally acting local anesthetic, that works by numbing and decreasing the activity of nerve fibers or vagal stretch receptors found in the pleura, lungs, and respiratory tracts (Drug Bank, 2024).	Inhibits RNA-dependent protein synthesis and peptide translocation by attaching itself to a ribosomal subunit in susceptible bacteria. In order to kill the bacteria, it travels to the infection site (Jones & Bartlett, 2023, p. 134).	Inhibits the cross-linking of peptidoglycan strands, therefore limiting the production of bacterial cell walls. The cell membrane is protective and firm because of peptidoglycan. Bacterial cells burst and perish in its absence (Jones & Bartlett, 2023, p.	Binds to beta2 receptors on the membranes of bronchial cells, activating adenylate cyclase, an intracellular enzyme that turns ATP to cAMP (Jones & Bartlett, 2023, p. 36).	It can lower the patients' blood pressure by stopping conversion of angiotensin 1 to 2. It can also stop renal and vascular production (Jones & Bartlett, 2023, p. 809).

			248).		
Reason Client Taking	Cough	**Bloodstream infection**	Sepsis	**Wheezing, Shortness of Breath**	**High Blood Pressure**
Contraindications (2)	**Kidney or liver disease (Cleveland Clinic, 2024)**	**Hepatic dysfunction due to prior use of drug & sensitivity to antibiotics (Jones & Bartlett, 2023, p. 134).**	**Hypersensitivity to medication & other beta lactam antibacterial (Jones & Bartlett, 2023, p. 248).**	**Hypersensitivity to the drug or its components (Jones & Bartlett, 2023, p. 36).**	**Angioedema & Hypersensitivity to drug (Jones & Bartlett, 2023, p. 810).**
Side Effects/Adverse Reactions (2)	**Constipation & seizures**	**Headache & Dizziness (Jones & Bartlett, 2023, p. 134).**	**Chills & Edema (Jones & Bartlett, 2023, p. 248).**	**Weakness & drowsiness (Jones & Bartlett, 2023, p. 36).**	**Memory impairment & tremors (Jones & Bartlett, 2023, p. 810).**

Medications Reference (1) (APA):

Benzonatate. (2024, February 2). Go.drugbank.com. https://go.drugbank.com/drugs/DB00868

Cleveland Clinic. (2024). *Benzonatate Cough Suppressant: Interactions & Side Effects*.

    Cleveland Clinic. https://my.clevelandclinic.org/health/drugs/20882-benzonatate-

    capsules

Jones. (2023). *2022 Nurse's Drug Handbook*. Jones & Bartlett Learning.

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Assessment

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Physical Exam (18 points) – <mark>HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS</mark>

GENERAL: **Alertness: Yes** **Orientation: x4** **Distress: Patient did not appear in**	**Patient is alert and oriented x4. She was aware of person, place, time, and location. She appeared to be calm and not in any distress. Patient appeared to be in good condition, <mark>had</mark>**

distress **Overall appearance: Good condition, hair looked matted, she had slight odor.**	**slight odor. Hair looked to be slightly matted.**
INTEGUMENTARY: **Skin color: Olive** **Character: Smooth, no moisture** **Temperature: Extremities were warm** **Turgor: Normal, less than 3 seconds** **Rashes: None** **Bruises: Blue bruise on upper right arm** **Wounds: None** **Braden Score: 19** **Drains present: Y☐ N ☒** **Type: N/A**	**Skin color is olive, smooth and no moisture. All extremities warm. Skin turgor was normal, less than 3 seconds. No rashes or wounds. Blue bruise on the upper right arm. Patients Braden Score was 19. No drains present.**
HEENT: **Head/Neck: Symmetrical, hair matted, no bumps, lesions, cuts.** **Ears: No drainage, symmetrical** **Eyes: PERRLA intact, sclera is white** **Nose: Septum midline, no drainage** **Teeth: All teeth intact, mouth pink and moist, no lesions or cuts.**	**All HEENT symmetrical. Hair was matted, no wounds or lesions. No drainage from ears. Eyes had normal movements and color. Pupils were equal, round, reactive to light, and accommodated. Nose had no drainage, septum midline. All teeth intact, tongue is midline. No cuts or lesions in mouth.**
CARDIOVASCULAR: **Heart sounds: Normal sounds** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable): S1, S2 present. No murmur heard** **Peripheral Pulses: Strong, x2** **Capillary refill: Normal, less than 3 seconds** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema: N/A**	**Patients heart sounds were normal, S1 and S2 present and no murmur heard. Peripheral Pulses were normal +2. Capillary refill was normal, less than 3 seconds. No neck vein distention, no edema.**
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **Wheezing on inhalation in bilateral bases**	**No accessory muscle use. Heard wheezing on inhalation and in bilateral bases.**
GASTROINTESTINAL: **Diet at home: Normal, snacks when she wants** **Current Diet: Healthy general diet** **Height: 5'4** **Weight: 180 lbs.** **Auscultation Bowel sounds: Normal,**	**Patient states that she eats a normal diet at home and snacks when she's hungry. At hospital she is on a healthy general diet. She is 5'4 and weighs 180 lbs. Patients bowel sounds were normal hypoactive, gurgles. Last bowel movement was yesterday, 4/3/24. No pain or tenderness when palpating abdomen. No**

gurgles **Last BM: 4/3/24** **Palpation: Pain, Mass etc.: No pain or tenderness** **Inspection:** 　**Distention: no** 　**Incisions: no** 　**Scars: no** 　**Drains: no** 　**Wounds: no** **Ostomy:　Y ☐　　N ☒** **Nasogastric:　Y ☐　N ☒** 　**Size: N/A** **Feeding tubes/PEG tube　Y ☐　　N ☒** 　**Type: N/A**	**abdominal distension, no incisions, no scars, no drains, no wounds. Patient does not have an ostomy, no NG tube, no feeding tube.**
GENITOURINARY: **Color: Yellow** **Character: <mark>Strong odor</mark>** **Quantity of urine: N/A, none during assessment** **Pain with urination:　Y ☐　　N ☒** **Dialysis:　Y ☐　　N ☒** **Inspection of genitals: Normal anatomy, no lesions, wounds, or abnormal skin.** **Catheter: Y ☐　　N ☒** 　**Type: N/A** 　**Size: N/A**	**Patient stated that her urine is yellow and has a <mark>strong odor</mark>. No pain with urination. No dialysis. Patients' genitals had normal anatomy, no lesions, no wounds, no abnormal skin. No use of a catheter.**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance:　Y☐　N ☐** **Fall Risk:　Y ☒　N☐** **Fall Score: 84** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk ☐**	**(Professor Smalley waived section). <mark>Patients fall score was 84, high risks for falls.</mark>**
NEUROLOGICAL: **MAEW:　Y ☐　　N☐** **PERLA:　Y ☒　　N☐** **Strength Equal:　Y ☐　N ☐　if no -** **Legs ☐　Arms ☐　Both ☐**	**(Professor Smalley waived section). Patients pupils were equal, round, reactive to light, and accommodated.**

Orientation: **Mental Status:** **Speech:** **Sensory:** **LOC:**	
PSYCHOSOCIAL/CULTURAL: **Coping method(s): Watch tv, sleep** **Developmental level: Appropriate with age** **Religion & what it means to pt.:** **Protestant, patient is not very religious** **Personal/Family Data (Think about home environment, family structure, and available family support): Lives at a home with her son**	**Patients coping methods involve watching tv and sleeping. Her development seems appropriate with age. Patient is not very religious but follows Protestant beliefs. She lives in a house with her son who helps take care of her.**

Vital Signs, 1 set (5 points) – ==HIGHLIGHT ALL ABNORMAL VITAL SIGNS==

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1100	==52 BPM==	123/75 mmHG	==22== Breaths per min	==97.2== Degrees Fahrenheit	98% on room air

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1002	Numerical	Chest	==9/10==	==Sharp, worsens with movement==	Keep head of bed elevated

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
25% of breakfast 160 mL of water	Unmeasurable, patient did not urinate during shift

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

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. **Patient is at risk for ineffective breathing pattern related to increased physical exertion as evidenced by shortness of breath (Phelps, 2023, p. 77).**	**I chose this nursing diagnosis due to the fact that my patient was having chest pain and shortness of breath when doing any physical activity.**	1. **Provide rest periods between breathing enhancement measures to avoid fatigue (Phelps, 2023, p. 79).** 2. **Assess and record respiratory rate and depth at least every 4 hours to detect early signs of respiratory compromise (Phelps, 2023, p. 79).**	**1. Patients respiratory rate remains within established limits (Phelps, 2023, p. 79).**	**Patient rested and was eager to get to feeling better. Her respirations were 22, but were in normal limits by the end of shift. No family was there to discuss outcomes for the patient.**
2. **Patient is at risk for weakened immune system related to**	**I chose this nursing diagnosis because of her White Blood Cell count being**	1. **Monitor WBC count, as ordered. Report elevation or depressions**	**1. Patient's WBC count and differential remain within normal**	**Patient made sure she washed hands before and after her means and toileting. Not able to know if**

	high, this would put her at risk for an infection.	(Phelps, 2023, p. 365).	ranges. (Phelps, 2023, p. 366).	WBC count is back in limits until they do another lab. Family was not present.
medical diagnosis of Sepsis (Phelps, 2023).		**2. Have patient wash hands before and after meals and bathroom (Phelps, 2023, p. 366).**		

Other References (APA):

Phelps, L. (2023). *Nursing Diagnosis Reference Manual* (12th ed.). Wolters Kluwer.

Concept Map (23 Points)

Subjective Data
- Patient rates pain a 9/10
- Pain is a sharp feeling
- Had shortness of breath
- Quit smoking
- No Alcohol used
- No drug used
- Coping methods are sleep and watch TV

Nursing Diagnosis/Outcomes

- Patient is at risk for ineffective breathing pattern related to increased physical exertion as evidenced by shortness of breath (Phelps, 2023, p. 77).
- Patient's respiratory rate remains within established limits (Phelps, 2023, p. 79).

- Patient is at risk for weakened immune system related to medical diagnosis of Sepsis. (Phelps, 2023).
- Patient's WBC count and differential remain within normal ranges. (Phelps, 2023, p. 366).

Objective Data
- Diagnosed with Sepsis
- BP is 123/75
- Pulse is 52 BPM
- Respirations were 22 Breaths per min
- Temp was 97.2 F
- O2 Sat was 98% on room air
- Ate 25% of breakfast
- Drank 160 mL of water
- Patient did not urinate during shift

Client Information
Patient is a 76-year-old female that came in with shortness of breath and had a cough. She was admitted on 4/1/2024. She was diagnosed with Sepsis while in the hospital. She has been having sharp chest pain. Patient quit smoking, and no drug or alcohol use. She has a PMH of high cholesterol & hypertension. Patients code status is DNR.

Nursing Interventions
1. Provide rest periods between breathing enhancement measures to avoid fatigue (Phelps, 2023, p. 79).
2. Assess and record respiratory rate and depth at least every 4 hours to detect early signs of respiratory compromise (Phelps, 2023, p. 79).
3. Monitor WBC count, as ordered. Report elevation or depressions (Phelps, 2023, p. 365).
4. Have patient wash hands before and after meals and bathroom (Phelps, 2023, p. 366).