Student Name: PfC#: Choose an item.

1/21/2025

Patient Care Plan

Information gathered from the report and from the chart:

Client Initials: **R.R.**	**Clinical Date:** **1/14/2025**	**Room #: 418**		
Admit date and LOS: **01/10/2025**	**Gender and age:** **Male, 50 y.o.**	**Code status:** **Full Code**		**Allergies:** **No Known Alergies**
Cultural/Spiritual: **N/A**	**Mobility:** **Bed mobility**	**Pain/Comfort/Tissue Integrity:** **Chest pain - 6/10**		**Intake & output (calculated last 24hrs):** **Intake- 1100.00 ml;** **Output- 1649 ml;** **Balance: - 540 ml**
IV (location, size, SL/fluids): **Left arm, normal saline water**	**Catheter, drain, wound, surgical site (describe**	**Daily Weight** **58.000**	**BMI** **20**	**Other Treatments (OT/PT/RT/SCDs/Accuchecks/Etc :**

	surrounding skin and any drainage/output):			**PT, RT**

Physical Assessment Findings: (Think of how these will relate to the primary problem. You may need to complete a more focused assessment on a specific system based on the patient's diagnosis)	
CNS	General appearance: alert; oriented, x3; awake, no acute distress; no motor deficits.
Head/Neck	Non-tender, supple/ no meningismus, normocephalic, atraumatic, EOMI.
CV	Regular, no murmur, no rub.
Resp	Decreased breathing sounds bilaterally, crackles, worsening shortness of breath, chest pain, dull left lower lobe. Chest tube 1 ml – 240 lec. (last evaluation check), Left Pleural.
GI	Active Bowel sounds, soft, no tenderness, no guarding, no rebound, no distention, no mass, organomegaly.
GU	Normal color, patient use Urinal bottle. Voiding without any complications.
Integumentary	Moist, warm, normal color, dry.

Student Name: PfC#: Choose an item.

Information gathered from the chart:

1. What is the patient's chief complaint (what brought them to the hospital) and what is the admitting medical diagnosis? Describe the underlying cause/**pathophysiology** of this problem including expected findings? What is being done to treat this problem?

   Patient came to emergency department for farther evaluation were CTA chest remarkable for worsening disease was requested. Patient report suggestive fevers, chills, decreased p.o. intake, fatigue, worsening shortage of breath upon emergency dep. evaluation patient hypoxic and hypotensive. Started on oxygen and antibiotics.

2. Prioritize the past medical history and **explain its relevancy to current problem**(s). Include dates of any pertinent surgeries.

   Smoker. Recommended nicotine patch. Right hand surgery.

3. What clinical data from the chart is RELEVANT and needs to be trended because it relates to the admitting medical diagnosis? INCLUDE: vital signs, labs, blood glucose, radiology report, O^2 sat, pain level, wounds/incisions, diet). Please list normal parameters based on different facilities.

   Vital signs:

	Today 1/14/25		**Today's Interpretation**	**Over the course of the admission? (What is the trend?**
	Beginning of shift	**End of shift**		

			(What is the trend? Improving, deteriorating, steady)	**Improving, deteriorating, steady)**
Temp:	**36.9**	**36.9**	**Steady**	**Steady**
Pulse:	**72**	**93**	**Steady**	**Slight change**
Resp:	**16**	**16**	**Steady**	**Steady**
O2 Sat:	**97**	**94**	**Steady**	**Steady**
BP:	**90/41**	**93/58**	**Steady**	**Steady**

Labs and diagnostics:

CMP	**REFERENCE RANGE**	**Level on Admit**		**Level on Last Lab**		**Interpretation: (improving, deteriorating, steady) If abnormal, list etiology**
		(Date)	**Level**	**(Date)**	**Level**	
SODIUM	135 to 145 mEql/L	**1/13/25**	**134**	**1/14/25**	**139**	**Improving**

POTASSIUM	3.5 to 5mEq/ /L	**1/13/25**	**3.6**	**1/14/25**	**4.0**	**Normal**
MAGNESIUM	1.5-2.5 mg/dL	**--**	**--**	**1/14/25**	**1.8**	**Normal**
CARBON DIOXIDE	22-32mEq/L	**--**	**--**	**1/14/25**	**32**	
GLUCOSE	70-100 mg/dL	**1/12/25**	**163**	**1/14/25**	**106**	**Improving**
BUN	7-18 mg/dL	**1/13/25**	**<5**	**1/14/25**	**5**	**Low**
CREATININE	0.6-1.2 mg/dL	**--**	**--**	**1/14/25**	**0.4**	**Low**
CALCIUM	8.4 to 10.2 mg/dL	**1/13/25**	**8.6**	**1/14/25**	**8.8**	**Normal**
TOTAL PROTEIN	6.7-8.2 g/dL	**1/13/25**	**6.7**	**1/14/25**	**6.5**	**Deteriorating**

ALBUMIN	3.1-4.3 g/dL	**1/13/25**	**1.5**	**1/14/25**	**1.5**	**Low**
PROTHROMBIN TIME (PT)	11-16sec	**--**	**--**	**--**	**--**	
INR		**--**	**--**	**--**	**--**	
(aPTT)	25-35sec	**--**	**--**	**--**	**--**	
B-TYPE NATURETIC PEPTIDE(BNP)	<100pg/mL	**--**	**--**	**--**	**--**	
TROPONIN		**--**	**--**	**--**	**--**	
SGOT/AST	9-25 units/L	**--**	**--**	**1/14/25**	**8**	**Low**
SGPT/ALT	7-55 units/L	**1/13/25**	**8**	**1/14/25**	**7**	**Low**

COMPLETE BLOOD COUNT (CBC)

Student Name: PfC#: Choose an item.

Serum Component	REFERENCE RANGE	Level at Admit		Level on Last Lab		Interpretation: (improving, deteriorating, steady) If abnormal, list etiology
		(Date)	Level	(Date)	Level	
WBC	4.5-11.0×10 3 /mm 3	**1/13/25**	**6.5**	**1/14/25**	**6.3**	**Normal**
RBC	3.9 – 5.2 x 106/µL3	**1/13/25**	**2.97**	**1/14/25**	**2.97**	**Low**
HGB	W 12.0-16.0 g/dl M 13.0-18.0 g/dl	**1/13/25**	**8.7**	**1/14/25**	**8.8**	**Low**
HCT	W 36.0% – 46.0% of red blood cells M 37.0% – 49.0% of red blood cells	**1/13/25**	**25.7**	**14/14/25**	**26.1**	**Low**
PLT	140-400 K/mm3	**1/13/25**	**641**	**1/14/25**	**656**	**High**

Student Name: PfC#: Choose an item.

List <u>RELEVANT</u> lab tests not already listed.

LAB TEST	REFERENCE RANGE	Level on Last Lab		Interpretation: (improving, deteriorating, steady) If abnormal, list etiology
		(Date)	Level	
Lymphocytes		**1/14/25**	**18.2**	**Low**
Monocytes		**1/14/25**	**10.6**	**High**
PT		**1/10/25**	**13.6**	**High**
INR(Anticoag. Therapy)		**1/10/25**	**1.2**	**Low**
AST		**1/14/25**	**8**	
ALT		**1/14/25**	**7**	**Low**
Bilirubin		**1/14/25**	**0.2**	**Low**

Student Name: PfC#: Choose an item.

List RELEVANT Procedures (X-ray, MRI, CT, cardiac catheterization, endoscopy, etc.).

Date	Test	Why Ordered	Result or Findings of Test
		Pain Chest	**I. Impression:** **1. Worsening bilateral airspace opacities, multipolar distribution. Element of pulmonary edema may also be present.** **2. Left hemidiaphragm is obscured with suspected small left pleural effusion, stable.** **II.** **No evidence for pulmonary embolic disease. Previously visualized subsegmental palm. Embolic in the right lower lobe are no longer seen. Redimonstr. Is a large air and flid-filled collection replacing almost the entire left lower lobe. This has progress since the prior exam.** **3. INCR airspace and consolidative opacities of the right lower lobe, right middle lobe, and ligula.**

Student Name: PfC#: Choose an item.

While providing care and after client care, answer these questions:

4. What physical assessment findings are RELEVANT and need to be TRENDED because they are clinically significant to detect a change in status?

Respiratory function, oxygen saturation, cardiovascular stability, pain levels, chest tube output, and lab values are some of the most important physical assessment findings that need to be constantly monitored. The patient has lessening of both breath sounds, crackles, worsening shortness of breathe, and a dull feeling when percussion is applied to the left lower lobe. This could mean that the patient has pneumonia, pleural effusion, or an expanding empyema (Shen-Wagner et al., 2023). Crackles are a sign of fluid buildup in the lungs, which shows how important it is to get regular lung exams and be ready for possible surgery to drain the fluid further if the pleural effusion gets worse (McCauley & Dean, 2015).The patient's oxygen saturation has somewhat decreased (97% → 94%) but remains over the threshold of 88% on room air, which is comforting. It is important to keep an eye on O2 saturation levels because any further drops could mean that hypoxia is getting worse or that breathing is stopping (*RN ADULT MEDICAL SURGICAL NURSING*, n.d.). A check of the heart and arteries shows consistently low blood pressure (90/41 → 93/58) and a fast heart rate (72 → 93 bpm), which could mean systemic inflammatory response syndrome (SIRS), early sepsis, or loss of intravascular volume. These trends necessitate careful evaluation to identify probable septic shock. The chest tube output is 240 mL of purulent fluid over 24 hours, consistent with continuous empyema drainage. Still, if the drainage volume suddenly goes up or down by a lot, it could mean that there are problems like a blocked tube, loculated effusion, or an infection getting worse (*Fundamentals of Nursing - Nursing School Resources*, 2024).

Laboratory findings are essential for monitoring the patient's condition. The WBC count is constant (6.5 to 6.3), indicating no active deterioration of infection; however, ongoing surveillance is essential. Platelet counts that are higher than normal (641 to 656) may mean that the body is actively responding to inflammation. This is common in people who have long-lasting infections or conditions that follow inflammation (McCauley & Dean, 2015). Mild anemia (Hgb 8.7 → 8.8, Hct 25.7 → 26.1) is seen, potentially impairing oxygen delivery and tissue perfusion. Also, low albumin levels (1.5 g/dL) show that the person isn't getting enough nutrients, which could hurt their immune system and make it harder for wounds to heal (*RN ADULT MEDICAL SURGICAL NURSING*, n.d.). In light of these findings, continuous laboratory monitoring, nutritional assistance, and infection control measures are essential to avert additional problems and enhance recovery.

5. What nursing priority (nursing diagnosis) will guide your plan of care (physical, psychosocial and spiritual)? Write your nursing diagnosis, goal, and interventions in this table. Be sure to use evidence-based practice and cite your sources.

Primary Nursing Diagnosis (e.g. pain related to fracture)	**Nursing Diagnosis #2**	**Nursing Diagnosis #3**

Impaired gas exchange associated with pneumonia, pleural effusion, and empyema.	Risk of infection associated with persistent pneumonia, chest tube insertion, and pleural fluid contamination.	Acute pain associated with inflammation due to pneumonia, empyema, and chest tube insertion.
as evidenced by(a.e.b.) Supporting Data from your assessment	**as evidenced by(a.e.b.)** Supporting Data from your assessment	**as evidenced by(a.e.b.)** Supporting Data from your assessment
● Bilateral diminished breath sounds. ● Presence of crackles and dullness upon percussion in the left lower lobe. ● O2 saturation declining from 97% to 94% while on room air. ● Dyspnea and elevated respiratory effort.	● Empyema accompanied by purulent chest tube drainage (240 mL/24h). ● Positive pleural fluid culture indicating the presence of Prevotella oris (anaerobic bacterium). ● Chronic pneumonia and pulmonary opacities observed on imaging (chest X-ray).	● Chest pain rated at 6 out of 10. ● Pain associated with pleuritic inflammation and the insertion of a chest tube. ● Pain impeding deep respiration and the use of incentive spirometry.
Short Term Goal	**Short Term Goal**	**Short Term Goal**

(what is the goal today?) Write using SMART format	**(what is the goal today?) Write using SMART format**	**(what is the goal today?) Write using SMART format**
The patient will sustain an O2 saturation of at least 88% on room air and have better breath sounds with diminished dyspnea within 24 hours.	The patient will remain afebrile and exhibit a steady or improved white blood cell count within 48 hours, signifying good infection management.	The patient will indicate a pain level of ≤ 3/10 within 4 hours post-analgesic treatment, facilitating enhanced comfort and engagement in deep breathing exercises.
List 3-6 nursing interventions for this diagnosis.	**List 3-6 nursing interventions for this diagnosis.**	**List 3-6 nursing interventions for this diagnosis.**
1. Assess O2 saturation and administer supplementary oxygen as necessary. 2. Auscultate lung sounds every four hours to assess variations. 3. Facilitate the use of incentive spirometry and deep breathing exercises.	1. Maintain intravenous antibiotic treatment according to culture findings. 2. Observe temperature and white blood cell count for indications of deteriorating infection. 3. Keep aseptic procedure throughout chest tube management.	1. Administer analgesics (Norco, Acetaminophen) as directed. 2. Promote repositioning to alleviate discomfort from the chest tube. 3. Give emotional assistance and relaxation strategies.

4. Raise the head of the bed to a minimum of 30 degrees to enhance pulmonary expansion.	4. Evaluate the output and characteristics of chest tube drainage at the beginning of each shift.	4. Observe for any indications of increasing pain or discomfort.

6. What is the worst problem/potential complication(s) to anticipate based on the admitting medical diagnosis?

The patient was admitted with acute hypoxic respiratory failure, community-acquired pneumonia, loculated pleural effusion, and empyema. The most serious complications that could happen are septic shock, acute respiratory distress syndrome (ARDS), respiratory failure requiring intubation, and the progression of the empyema leading to pleural fibrosis (McCauley & Dean, 2015). Septic shock is a big problem because an empyema that isn't treated or drained properly can lead to a systemic infection, organ failure, and unstable blood flow (Rhodes et al., 2017). Aside from pneumonia and systemic inflammation getting worse, ARDS can also happen because of severe hypoxia and the possibility of respiratory failure. A significant consequence is loculated empyema, which may develop resistance to treatment and necessitate surgical procedures such as video-assisted thoracoscopic surgery (VATS) or decortication (Shen-Wagner et al., 2023).

7. What is the worst problem/potential complication(s) to anticipate based on the patient's presentation today?

Based on the patient's current condition and lab results, the main worries are the empyema getting worse, the hypoxia getting worse, the possibility of sepsis, and the need for more chest drainage. The ongoing chest pain (6/10), shortness of breath, and opacities on both sides of the lungs suggest that the infection has not been completely cured, which may mean that another chest tube needs to be placed or antibiotics need to be increased (Shen-Wagner et al., 2023).The decrease in blood pressure and elevated heart rate indicate hemodynamic instability, potentially signifying early sepsis (Rhodes et al., 2017). Concerns about more pleural involvement are raised by persistent opacities in the right upper lobe and a new lateral fluid collection seen on the chest X-ray (1/13/25). This means that more imaging and possibly intervention are needed (McCauley & Dean, 2015).

8. What nursing assessments will you need to initiate to identify these complications if they develop?

To identify and avoid possible issues, various nursing assessments must be conducted. Regular respiratory evaluations are essential, encompassing auscultation of breath sounds, observation of respiratory rate and pattern, assessment of escalating work of breathing, and tracking of O2 saturation trends. Vigilant observation of the chest tube output is essential, as a sudden reduction may signify a blockage, whilst an escalation in sanguine drainage could imply vascular injury (Shen-Wagner et al., 2023).Vital signs must be evaluated every 2-4 hours, with specific focus on hypotension, tachycardia, and fever, since these may indicate sepsis or deteriorating infection (Rhodes et al., 2017). Pain assessment must be conducted often, as insufficient pain management might hinder deep breathing and pulmonary hygiene, elevating the risk of atelectasis and exacerbating pneumonia (McCauley & Dean, 2015). Because the albumin levels are so low (1.5 g/dL), it's important to check the patient's nutrition because that could make healing and immune system function worse.

9. How did the physical assessment change during the shift? How did they respond to any interventions? (evaluation)

Throughout the shift, the patient's respiratory function remained steady, with an O2 saturation of 94% on ambient air. Nonetheless, the patient persisted in reporting dyspnea and thoracic discomfort, indicating persistent pleural inflammation. The pain score of 6/10 stayed the same, which suggests that the current painkillers (Norco, acetaminophen) may need to be changed or replaced with other methods, like breathing and positioning exercises (*Pharmacology Review Module - for Students | ATI*, n.d.). Chest tube drained 240 mL of purulent fluid over 24 hours, indicating successful drainage; nevertheless, the CXR findings of a new suspected loculated pocket necessitate review and potential additional drainage (Shen-Wagner et al., 2023).

10. After reviewing the primary care provider's note (progress notes and consultation notes), what is the rationale for any new orders or changes made?

The cessation of vancomycin depended on the negative MRSA test, signifying that extensive MRSA coverage was unwarranted. We maintained Zosyn, intending to switch to Unasyn upon confirmation of culture susceptibilities. This action follows the principles of antibiotic stewardship by cutting down on the use of broad-spectrum antibiotics that aren't needed in order to prevent resistance (McCauley & Dean, 2015). The CXR results showing another pleural fluid pocket led to a discussion about the possibility of inserting an extra chest tube, which showed how important it is to keep checking on and helping patients (Shen-Wagner et al., 2023).

11. What educational/discharge needs have you identified and how will you address them?

The patient requires teaching on antibiotic compliance, respiratory hygiene, smoking cessation, and indicators of infection recurrence. He must comprehend the necessity of completing the 4-week treatment of Augmentin to avert recurrence or the development of antibiotic resistance (McCauley & Dean, 2015). Furthermore, continue to provide smoking cessation counseling and nicotine replacement medication, as smoking exacerbates respiratory ailments (*Fundamentals of Nursing - Nursing School Resources*, 2024). To prevent post-discharge pneumonia, the patient should receive instruction on incentive spirometry, deep breathing exercises, and early ambulation. Provide clear instructions regarding signs of a deteriorating illness, such as fever, heightened dyspnea, or purulent sputum production (Shen-Wagner et al., 2023).

12. What is the client likely experiencing/feeling right now in this situation?

The patient is probably experiencing frustration, anxiety, and fear concerning his condition and extended hospitalization. Respiratory distress is unsettling and may induce psychological strain, resulting in thoughts of hopelessness. Furthermore, pain from the chest tube and pleural effusion may exacerbate discomfort and emotional anguish. Nursing interventions must encompass reassurance, explicit communication of the treatment plan, and the promotion of active engagement in care to alleviate anxiety (*Fundamentals of Nursing - Nursing School Resources*, 2024).

13. What were the strengths and weaknesses in your nursing care? What went well? What can you improve?

A significant strength in nursing care was the proficient monitoring of respiratory function, oxygenation, and infection indicators, facilitating prompt intervention and the prevention of problems. Pain management measures were implemented, although modifications may be required to enhance comfort. Initial dialogues regarding discharge planning and smoking cessation were notable strengths, facilitating continuity of treatment following hospitalization (McCauley & Dean, 2015). Possible improvements include reassessing pain more often and quickly involving multidisciplinary teams, such as nutrition support, because the patient's albumin levels have dropped. Furthermore, the use of visual aids or organized instructional

sessions about pneumonia preventive techniques following discharge may improve patient education (*Fundamentals of Nursing - Nursing School Resources*, 2024).

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