

The GUARD Method™

CASE STUDY WITH ANSWERS

CASE STUDY



A 68-year-old man is admitted to the hospital with shortness of breath, fatigue, and swelling in his legs. He has a history of hypertension, coronary artery disease, and heart failure. His current medications include furosemide, lisinopril, and metoprolol.

Vital signs: BP 162/96 mm Hg, HR 104 beats/min, RR 24 breaths/min, SpO₂ 88% on room air, temperature 98.4 °F (36.9 °C).

Assessment: Bilateral crackles in the lungs, 2+ pitting edema in both legs, reports shortness of breath when lying flat.



GOAL

What are we trying to accomplish?

- Improve oxygenation and relieve shortness of breath.
- Decrease fluid volume (overload).
- Improve lung sounds and reduce edema.
- Lower blood pressure and heart rate to decrease cardiac workload.
- Stabilize the patient's condition and prevent further decompensation.
- **Success:** Improved breathing, SpO₂ > 92%, decreased edema, stable vital signs, and improved activity tolerance.

POSSIBLE QUESTIONS

- What is the primary goal for this patient?
- What therapeutic outcome are we trying to achieve?
- What should improve or be maintained?
- What does success look like?
- How will we know the goal has been met?



UNSAFE OUTCOMES

What could harm this patient?

- Worsening respiratory failure leading to intubation.
- Pulmonary edema.
- Decreased cardiac output.
- Dysrhythmias (e.g., atrial fibrillation).
- Acute kidney injury.
- Electrolyte imbalance (hypokalemia, hyponatremia).
- Hypotension (from overdiuresis).
- Falls due to weakness or dizziness.
- Myocardial ischemia from increased demand on the heart.

POSSIBLE QUESTIONS

- What are the most serious complications?
- What could cause this patient to worsen?
- What are the red flags or early warning signs?
- What findings require immediate attention?
- What situational or environmental factors could put the patient at risk?



AFFECTING FACTORS

What changes the situation?

- Age 68 (increased risk for complications).
- History of hypertension, coronary artery disease, and heart failure.
- Current medications: furosemide (risk for electrolyte imbalance), lisinopril (risk for hyperkalemia and renal effects), metoprolol (risk for bradycardia).
- Decreased mobility and activity tolerance.
- Sodium intake (not yet known; can add to fluid retention).
- Renal function (not yet known; check BUN/creatinine).

POSSIBLE QUESTIONS

- What patient-specific factors affect this patient's condition?
- What comorbidities are present?
- What medications could influence the outcome?
- What laboratory values, age, or lifestyle factors matter?
- What other factors (e.g., diet, activity, smoking) should be considered?

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RESULTS

What tells us what is actually happening?

- BP 162/96 mm Hg (elevated).
- HR 104 beats/min (tachycardia).
- RR 24 breaths/min (increased).
- SpO₂ 88% on room air (decreased).
- Bilateral crackles (fluid in lungs).
- 2+ pitting edema in legs (fluid overload).
- Reports orthopnea (shortness of breath when lying flat).
- Still needed: electrolytes (K⁺, Na⁺), BUN, creatinine, daily weights, and intake and output.
- Chest X-ray: not yet available.

POSSIBLE QUESTIONS

- What assessment findings support this patient's condition?
- Which vital signs are most concerning?
- What laboratory values are relevant?
- What diagnostic test results are important?
- What trends are we seeing over time?
- What tells us the treatment is working or not working?



DO OR DON'T

What should the nurse do or not do?

- Administer furosemide as prescribed.
 - Monitor vital signs, SpO₂, respiratory status, and lung sounds.
 - Monitor intake and output.
 - Monitor daily weights.
 - Monitor electrolyte levels (especially K⁺).
 - Assess for signs of overdiuresis (hypotension, dehydration, dizziness).
 - Place in high Fowler's position.
 - Provide oxygen as ordered.
 - Limit sodium intake and educate on a low-sodium diet.
 - Notify the provider for worsening respiratory distress, low potassium, decreased urine output, or dysrhythmias.
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- Avoid excessive IV fluids unless ordered.

POSSIBLE QUESTIONS

- What are the priority nursing actions?
- What interventions should be implemented?
- What should the nurse avoid?
- When should the nurse notify the provider?
- What patient education is needed?
- What follow-up or reassessment is required?



SUMMARY – CLINICAL JUDGMENT USING THE GUARD METHOD

- The patient is experiencing acute decompensated heart failure with fluid overload, as evidenced by hypertension, tachycardia, hypoxia, crackles, and peripheral edema.
- Priority actions include diuresis with furosemide, close monitoring of respiratory status and electrolytes, and patient education.
- Expected outcomes: improved oxygenation, decreased edema, stable vital signs, and increased activity tolerance.