Fluid Excess

Hypervolemia + Clinical Reasoning Walkthrough

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Part One.

Understanding What's Happening in the Body

Fluid Excess. Hypervolemia.

What is it and Why Does it happen?

Hypervolemia means the hallway is flooding. There is too much fluid in the body, and it is leaking into places it should not. But here is what makes hypervolemia tricky. The problem is not always that the body has too much fluid. Sometimes the problem is that the pump moving the fluid is not working properly.

That is exactly what happens in heart failure.

Picture the hallway again. The heart is the pump at the end of the hallway. Its job is to keep fluid moving. When the pump works well, fluid flows through the hallway, delivers oxygen and nutrients to the rooms, and continues to move. Nothing pools. Nothing backs up.

But when the heart fails, the pump weakens. It cannot move fluid forward the way it used to. So, fluid starts to back up. It builds up in the hallway. It seeps into the walls. It floods into the rooms. And eventually it finds its way into the lungs.

The body has too little effective volume reaching the organs, despite overall fluid overload. The pump is failing, and the fluid is going nowhere useful. The organs are still not getting what they need, even though the hallway is overflowing.

> **That is hypervolemia from heart failure. Too much fluid in the wrong places and not enough getting where it needs to go.**

Causes.

Heart failure. The pump weakens, and fluid backs up. The left side of the heart fails to pump blood forward into circulation. Fluid backs up into the lungs. The right side of the heart fails to pump blood into the lungs. Fluid backs up into the body. Swollen legs. Swollen abdomen. Distended neck veins.

Kidney failure. The kidneys cannot remove fluid the way they should. Fluid accumulates everywhere.

Cirrhosis. The liver produces albumin, which is a protein that helps hold fluid inside the body. When the liver fails, albumin drops, and fluid leaks out of the hallway into the walls and rooms. That is why patients with cirrhosis develop massive abdominal swelling called ascites.

Excessive IV fluid administration. Too much fluid given too fast can overwhelm even a healthy system. A postoperative patient who received aggressive fluid resuscitation may develop fluid overload.

Corticosteroids and certain medications. Some medications cause the body to retain sodium and, therefore, retain water. Where sodium goes, water follows.

Assessment Findings.

Your patient with hypervolemia is going to show you exactly what happens when fluid floods the wrong places. Unlike hypovolemia, where the hallway is empty, hypervolemia is the hallway overflowing and fluid seeping into the walls and the rooms.

Shortness of breath. This is your most urgent finding. When fluid backs up into the lungs, the alveoli fill with fluid instead of air. The patient cannot get oxygen in and cannot get CO_2 out. They will tell you they cannot catch their breath. They may be sitting straight up in bed because lying flat makes it worse. That position has a name. Orthopnea. If your patient cannot lie flat without feeling like they are drowning, that is a red flag.

Crackles in the lungs. When you listen to the bases of the lungs, you will hear a crackling sound like you are walking on fresh snow. That is fluid in the alveoli. The more crackles you hear and the higher up the lung fields they go, the worse the fluid overload.

Peripheral edema. Fluid seeping into the walls shows up as swelling. You will see it first in the feet and ankles because gravity pulls fluid down. Press your finger into the swelling and hold for a few seconds. If the indentation stays after you lift your finger, that is pitting edema.

Weight gain. One liter of fluid weighs about 2.2 pounds. A patient who gained five pounds in two days did not gain five pounds of fat. They retained fluid. A gain of more than two to three pounds in a day is significant.

Jugular venous distension. When the right side of the heart is failing and fluid is backing up, you can see it in the neck. The jugular veins will be visibly distended even when the patient is sitting up at a 45-degree angle.

Hypertension. More fluid in the hallway means more pressure against the walls. Blood pressure rises.

Bounding pulse. The opposite of the weak, thready pulse you saw with Porsha. Too much volume behind each heartbeat makes the pulse feel strong and bounding.

Decreased urine output. Even though there is too much fluid in the body, the kidneys may not be making adequate urine. In heart failure, the kidneys are not getting perfused effectively because the pump is failing.

Lab Findings.

The labs are going to tell you the same story your eyes already told you at the bedside. They just put numbers on it.

BNP or NT-proBNP will be elevated. This is the heart's distress signal. When the heart walls are being stretched and stressed from too much volume, they release this protein into the bloodstream. The higher the number, the harder the heart has to work just to keep up. When you see an elevated BNP in a patient with shortness of breath and swelling, you already know where this is going.

Sodium may be low. This one trip students up. If there is too much fluid in the body, why is sodium low? Here is the simple version. The body is holding onto so much water that the sodium gets diluted. The hallway is flooded, and the sodium is swimming in it. The sodium is not truly gone. It just looks low because there is too much water surrounding it.

BUN and creatinine may be elevated. Even though there is too much fluid overall, the kidneys may not be receiving enough. The failing heart cannot pump blood to the kidneys effectively, so they start to struggle. Elevated BUN and creatinine indicate the kidneys are experiencing the effects of a pump that is not doing its job.

Hematocrit may be low. The opposite of what you saw with Porsha. In hypervolemia, there is too much fluid in the blood, diluting it. The red blood cells are still there, but all that extra fluid makes the concentration look low.

Chest X-ray. Not a blood test, but it belongs here. The chest X-ray will show an enlarged heart and fluid backing up into the lungs. This is often what confirms what you already knew from the bedside.

Nursing Priorities.

Sit them up. Get Sutton upright immediately. High Fowler's position. Sitting up uses gravity to pull fluid away from the lungs and toward the lower body. This is the opposite of what you did for Porsha. A hypovolemic patient goes flat. A hypervolemic patient goes upright. Do not mix these up.

Hypovolemic patients go flat. Hypervolemic patients go upright. Do not mix these up.

Oxygen. Apply oxygen immediately. The lungs are full of fluid, and the patient is not receiving adequate oxygen. Depending on severity, this may be a simple nasal cannula, or it may require a non-rebreather mask or even BiPAP.

Do not give fluids. This sounds obvious, but it is a trap students fall into. A patient who is confused, has low urine output, and looks unwell triggers the instinct to give IV fluids. In a hypervolemic patient, that instinct will worsen the situation. Read the whole picture before reaching for IV fluids.

Restrict fluids and sodium. Sutton does not need more fluid coming in. Fluid restriction and sodium restriction are core parts of managing hypervolemia. Where sodium goes, water follows. Limiting sodium limits how much water the body holds onto.

Daily weights. Weigh Sutton every morning at the same time in the same amount of clothing before he eats or drinks anything. One liter of fluid is 2.2 pounds. A weight gain of two to three pounds overnight tells you fluid is accumulating faster than it is being removed.

Monitor respiratory status continuously. Listen to lung sounds in every assessment. Watch the respiratory rate and effort. A patient with pulmonary edema can deteriorate fast. If the crackles are climbing higher in the lung fields, the situation is getting worse, not better.

Strict intake and output. In hypervolemia, you want output to exceed intake. The goal is to remove fluid from the body.

Medical Treatment.

Treatment for hypervolemia is always aimed at two things. Remove the excess fluid and support the failing pump.

Diuretics.

This is your primary tool. Furosemide, also known as Lasix, is the most commonly used diuretic in heart failure. It works fast, sometimes within minutes of IV administration. Bumetanide and torsemide are also used depending on the patient and the clinical situation. When you give a diuretic, you are watching for a significant increase in urine output. That is how you know it is working.

Medications to Support the Heart.

ACE inhibitors like lisinopril and enalapril reduce the workload on the heart by relaxing the blood vessels, so the heart does not have to push as hard.

Beta blockers like carvedilol and metoprolol slow the heart rate and reduce the stress on the heart muscle over time.

Digoxin strengthens heart muscle contraction and slows the heart rate.

In severe cases, dobutamine or milrinone may be given intravenously to directly strengthen the heart's pumping ability.

Fluid and Sodium Restriction.

Limiting how much fluid and sodium come in while the diuretics pull fluid out. The goal is to create a negative fluid balance. More coming out than going in.

Oxygen and Ventilatory Support.

Supplemental oxygen for all patients. BiPAP for patients whose oxygen saturation is not responsive to standard oxygen therapy. Intubation and mechanical ventilation in the most severe cases.

Monitoring and Evaluation.

You are watching Sutton moving in the right direction. That means the excess fluid is coming off, the lungs are clearing, and the pump is getting some relief.

Watch the respiratory status. Breathing should be getting easier, not harder. The respiratory rate should be coming down. If the crackles are moving up instead of clearing, the fluid overload is winning, and you need to escalate.

Watch the urine output. After a diuretic is given, urine output should increase significantly. If urine output is not responding to diuretics, the provider needs to know.

Daily weights. A weight loss of one to two pounds per day tells you the fluid is coming off at a safe rate. Losing too much too fast can swing the patient into hypovolemia. You are watching both directions.

Watch the lung sounds. Crackles should begin to move down and eventually clear as fluid is removed from the lungs.

Watch the oxygen saturation. It should be climbing toward normal as the lungs clear. A saturation that is not improving despite oxygen and diuresis tells you the pulmonary edema is severe, and the patient may need a higher level of respiratory support.

Watch the blood pressure. As fluid comes off, the blood pressure should start to normalize. But watch for it dropping too low. Aggressive diuresis can pull too much volume out of the hallway and leave the patient hypotensive.

Watch the potassium. Diuretics like furosemide remove potassium from the body along with fluid. Hypokalemia is a common complication of diuretic therapy. Watch the labs and the cardiac monitor for flat T waves and U waves.

Watch the BNP trend. A decreasing BNP indicates the heart is under less stress. A BNP that is not moving tells you heart failure is not responding to treatment, and something needs to change.

Meet Sutton.

The Scenario

It is 2:15 PM on a Monday. You are the nurse in the emergency department.

A 48-year-old man is wheeled up to the triage window by his daughter. His name is Sutton. He could not walk from the parking lot. His daughter tells you he has been getting worse for about a week. She kept telling him to come in sooner. He kept saying he was fine.

Sutton tells you he has been short of breath. It started as if it were just feeling windy when he walked to the mailbox. Now he cannot make it from the bedroom to the bathroom without stopping to catch his breath. Last night, he woke up at 2 AM, unable to breathe, and had to sit up on the edge of the bed for an hour before it got better. He has been sleeping in his recliner for the past three nights because lying flat makes it worse.

He also mentions his shoes have not fit for the past four days. His ankles are so swollen that he had to wear sandals in the middle of winter. He thought it was just from being on his feet too much.

He has a history of hypertension, but has not seen a doctor in two years. He ran out of his blood pressure medication three months ago and did not refill it.

This is what you see at the triage window.

Sitting upright, leaning forward, hands on knees. Visibly working to breathe with every single breath.

Neck veins are visibly distended even sitting upright.

Ankles and lower legs are massively swollen. Deep pitting edema. Indentation stays when you press.

Respiratory rate 28. Labored with accessory muscle use.

Heart rate 102. Blood pressure 158/96. Oxygen saturation is 88% on room air. Temperature 98.6.

Lung sounds: Crackles from bases to mid lung fields bilaterally.

History of hypertension. No medications currently. No allergies.

That is everything you have right now. No labs yet. No imaging. No full chart. Just Sutton, this triage window, and what your eyes and your ears are telling you.

Before We Get into the Questions.

Let's Talk About How Nurses Actually Think.

There is a framework called the Clinical Judgment Measurement Model. CJMM. It is a map of how a good nurse thinks through a situation from start to finish. The NGN exam is built around this framework, so you need to understand it before you can answer these questions well.

There are six steps. Every single NGN question tests one of them.

Recognize Cues.

This is noticing. What are you seeing, hearing, and reading? Vital signs, lab values, what the patient looks like, and what they are telling you. You are not deciding anything yet.

Analyze Cues.

This is making meaning. Now that you have the information, what does it tell you? This step connects the dots between what you see and its clinical meaning.

Prioritize Hypotheses.

This is your best clinical guess. Based on everything you have recognized and analyzed, what do you think is most likely going on, and how serious is it?

Generate Solutions.

This is your action plan. What needs to happen to this specific patient based on your hypothesis?

Take Action.

This is doing. Carrying out the interventions.

Evaluate Outcomes.

This is checking. Did it work? Is the patient getting better or worse? Do you need to change your plan?

Here Is the Most Important Thing Nobody Tells You.

Each question stem tests one specific step. That means each question has a lane, and you have to stay in it. If the question is asking you to recognize cues, your job is to identify what is abnormal. Don't fix it. Do not diagnose it. Just see it.

The number one mistake students make on NGN is answering the wrong question. They see a sick patient and jump straight to interventions when the question is asking them to recognize cues. That answer is wrong even if the intervention is clinically correct. Stay in your lane.

NGN Stem 1.

CJMM Skill: Recognize Cues.

Which assessment findings require the nurse's priority attention?

Select all that apply.

- A. Oxygen saturation of 88% on room air
- B. Sutton has not seen a doctor in two years
- C. Respiratory rate of 28 with labored breathing and accessory muscle use
- D. Bilateral crackles from bases to mid lung fields
- E. Blood pressure of 158/96
- F. Pitting edema in the ankles and lower legs
- G. Sutton slept in his recliner for three nights
- H. Jugular venous distension while sitting upright

What Is This Question Actually Asking You?

This question is in the Recognize Cues Lane. Your only job right now is to identify which findings are clinically significant. You are not diagnosing Sutton. You are not treating him. You are simply looking at the data in front of you and deciding what stands out as important and what is background noise.

The trap here is treating every finding equally. Some of these findings are life-threatening right now. Some is important context. Some is background information. Know the difference.

Correct Answers: A, C, D, F, H.

Why Are These Correct?

A. Oxygen saturation of 88% on room air. Normal is 95% and above. An oxygen saturation of 88% indicates that Sutton's tissues are not receiving adequate oxygen right now. This is a critical finding that requires immediate intervention. This is your most urgent number.

C. Respiratory rate of 28 with labored breathing and accessory muscle use. Normally, it is 12 to 20. Sutton is significantly above that, and he is working hard with every single breath. Accessory muscle use indicates that the normal breathing muscles are not sufficient.

D. Bilateral crackles from bases to mid lung fields. Crackles in the lung bases alone are concerning. Crackles extending to the mid lung fields tell you the fluid overload is significant, and the pulmonary edema is severe. The higher the crackles, the worse the flooding.

F. Pitting edema in the ankles and lower legs. Fluid has been leaking from the hallway into the walls long enough to cause significant visible swelling. Deep pitting edema tells you this has been building for days.

H. Jugular venous distension while sitting upright. Visible neck vein distension at 45 degrees or more tells you fluid is backing up from the right side of the heart into the venous system. This is a direct sign that the pump is failing.

Why Are Others Wrong?

B. Sutton has not seen a doctor in the past 2 years. This is important history and context, but it is not a clinical finding requiring priority attention right now.

E. Blood pressure of 158/96. This is elevated and worth noting, but in the context of everything else happening to Sutton right now, it is not your priority. Oxygenation and respiratory status are far more urgent.

G. Sutton slept in his recliner for three nights. This is context. It tells you something about the progression of his symptoms, but it is not a clinical finding you are currently observing.

Common NGN Question Stems for This Skill.

- Which findings require immediate follow-up by the nurse?
- The nurse is reviewing the client's assessment data. Which findings are of most concern?
- Select the client findings that indicate the condition is worsening.
- Which assessment findings are consistent with the client's current condition?

> Notice what all of these have in common. They are asking you to look at data and identify what is significant. They are not asking what to do. They want to know you can see the picture before you start moving.

NGN Stem 2.

CJMM Skill: Analyze Cues.

The nurse is reviewing Sutton's assessment findings. Which statement best explains the clinical significance of his respiratory symptoms and physical examination findings?

- A. Sutton has developed pneumonia from sleeping in an upright position for several nights.
- B. Sutton's shortness of breath is caused by anxiety and deconditioning from not exercising regularly.
- C. Sutton's respiratory symptoms and physical findings indicate fluid accumulating in the lungs and body due to a failing cardiac pump.
- D. Sutton's hypertension is causing his blood vessels to constrict, making it harder for him to breathe.

What Is This Question Actually Asking You?

This question is in the Analyze Cues Lane. You have already identified the abnormal findings. Now the question is asking you to explain what they mean together as one clinical picture.

The trap here is picking the answer that explains the most dramatic symptom without connecting all the findings together. Sutton is not just short of breath. He is short of breath, has crackles throughout his lung fields, has massive pitting edema, has jugular venous distension, and cannot lie flat. All of those findings point to one mechanism.

Correct Answer: C.

Why This Is Correct.

C. Sutton's respiratory symptoms and physical findings indicate fluid accumulating in the lungs and body due to a failing cardiac pump. The heart is not pumping effectively. Fluid is backing up into the lungs, which is why he cannot breathe and why you hear crackles. It is backing up into the body, which is why his ankles are massively swollen. It is backing up into the venous system, which is why his neck veins are distended. He cannot lie flat because gravity makes the fluid in the lungs worse. Every single finding connects back to one failing pump.

Why Are Others Wrong?

A. Sutton has developed pneumonia from sleeping in an upright position. Pneumonia does not cause bilateral dependent edema, jugular venous distension, or the inability to lie flat. Sutton has bilateral crackles, massive swelling, and distended neck veins. This is not pneumonia.

B. Sutton's shortness of breath is caused by anxiety and deconditioning. Anxiety does not cause crackles in the lung fields, pitting edema, jugular venous distension, or an oxygen saturation of 88%.

D. Sutton's hypertension is causing his blood vessels to constrict, making it harder for him to breathe. Hypertension can contribute to heart failure over time, which is likely part of Sutton's story. But this answer identifies one contributing factor and ignores the full mechanism.

Common NGN Question Stems for This Skill.

- The nurse is analyzing the client's assessment findings. Which statement best explains the client's current condition?
- The nurse recognizes which finding is most consistent with the client's diagnosis?
- Which client finding requires the nurse to follow up based on the current clinical picture?
- The nurse determines that the client's symptoms are the result of which physiological process?

> Notice what all of these have in common. They are asking you to explain, not act. They want to know you understand what is happening inside the body before you move to the next step.

NGN Stem 3.

CJMM Skill: Prioritize Hypotheses.

The nurse is analyzing Sutton's assessment findings. Which condition should the nurse identify as the priority hypothesis?

- A. Pneumonia with sepsis
- B. Hypertensive emergency
- C. Acute decompensated heart failure with pulmonary edema
- D. Chronic obstructive pulmonary disease exacerbation
- E. Deep vein thrombosis with pulmonary embolism

What Is This Question Actually Asking You?

This question is in the Prioritize Hypotheses Lane. You have recognized the cues. You have analyzed what they mean. You are now being asked to commit. What is the most likely explanation for everything you see, and how urgent is it?

The trap here is getting distracted by one finding and building a hypothesis around it. Sutton has an elevated blood pressure. He is short of breath. His legs are swollen. Students who focus on one finding end up with the wrong hypothesis. You must look at all of it together.

Correct Answer: C.

Why This Is Correct.

C. Acute decompensated heart failure with pulmonary edema. Everything in Sutton's clinical picture points here. A week of progressive shortness of breath. Inability to lie flat. Waking up at 2 AM, unable to breathe. Bilateral crackles from the bases to the mid lung fields. Oxygen saturation of 88%. Massive pitting edema. Jugular venous distension. Hypertension from untreated high blood pressure for three months. All of it connects back to a failing heart and fluid that has nowhere to go.

Why Are Others Wrong?

A. Pneumonia with sepsis. Sutton has no fever, no productive cough, and no focal findings on lung exam. His crackles are bilateral and diffuse, not focal. Nothing in this clinical picture points to an infectious process.

B. Hypertensive emergency. Sutton's blood pressure is elevated, but a hypertensive emergency requires evidence of end-organ damage directly caused by the blood pressure itself. Sutton's presentation is most consistent with heart failure that has been driven in part by untreated hypertension. The blood pressure is a contributor, not the primary diagnosis.

D. Chronic obstructive pulmonary disease exacerbation. Sutton has no known history of COPD. COPD exacerbations present with wheezing and prolonged expiration in a patient with a known diagnosis. Sutton has crackles, not wheezes, pitting edema, and jugular venous distension. This is a cardiac picture, not a pulmonary one.

E. Deep vein thrombosis with pulmonary embolism. A. Pulmonary embolism can cause sudden shortness of breath and low oxygen saturation. But it does not cause bilateral pitting edema, jugular venous distension, bilateral crackles throughout both lung fields, or progressive worsening over a week.

Common NGN Question Stems for This Skill.

- The nurse is analyzing the client's assessment findings. Which condition is the client most likely experiencing?
- Based on the client's presentation, which hypothesis should the nurse prioritize?

- The nurse suspects the client is developing which complication?
- Which client finding is most concerning to the nurse at this time?
- The nurse determines that the client's condition is most consistent with which of the following?

Notice what all of these have in common. They are asking you to commit to a clinical conclusion. Not hedge. Not list possibilities. Pick the one that best explains the whole picture and own it.

NGN Stem 4.

CJMM Skill: Generate Solutions.

The nurse has identified acute decompensated heart failure with pulmonary edema as the priority hypothesis for Sutton. Which nursing actions should the nurse implement at this time? Select all that apply.

- A. Place Sutton in high Fowler's position immediately
- B. Administer a one-liter bolus of normal saline to improve perfusion
- C. Apply supplemental oxygen and monitor saturation continuously
- D. Prepare to administer furosemide as ordered
- E. Place Sutton flat with legs elevated to improve venous return
- F. Place Sutton on continuous cardiac monitoring
- G. Restrict fluid and sodium intake
- H. Notify the provider immediately

What Is This Question Actually Asking You?

This question is in the Generate Solutions lane. You have recognized the cues, analyzed their meaning, and committed to your hypothesis. Now you are being asked what to do about it. Every action you select must connect directly back to acute decompensated heart failure with pulmonary edema.

The trap here is reverting to hypovolemia interventions. Sutton has low oxygen saturation, low urine output, and an altered appearance. Every instinct will tell you to give fluids and lay him flat. Both of those actions will make him significantly worse.

Correct Answers: A, C, D, F, G, H.

Why Are These Correct?

A. Place Sutton in high Fowler's position immediately. Sitting upright uses gravity to pull fluid away from the lungs and toward the lower body. This is your first move. It costs nothing, and it works immediately to reduce the respiratory burden.

C. Apply supplemental oxygen and monitor saturation continuously. Sutton's oxygen saturation is 88%. His tissues are not getting adequate oxygen. Oxygen goes on immediately. You are watching for the saturation to climb to 95% or higher.

D. Prepare to administer furosemide as ordered. Furosemide tells the kidneys to excrete excess fluid through urine. This is the primary tool for removing the fluid that is flooding Sutton's lungs and body.

F. Place Sutton on continuous cardiac monitoring. Heart failure puts the heart under significant stress. Dysrhythmias are common. Hypokalemia from diuresis will increase that risk further.

G. Restrict fluid and sodium intake. You are not adding more to a system that is already overloaded. Fluid and sodium restriction are core to managing this patient from the moment he arrives.

H. Notify the provider immediately. Sutton has an oxygen saturation of 88% and is working hard to breathe. This is not a monitor-and-wait situation. The provider needs to know right now so orders can be placed and treatment can begin.

Why Are Others Wrong?

B. Administer a one-liter bolus of normal saline to improve perfusion. This is the most dangerous wrong answer on this stem. Sutton's lungs are already full of fluid. Adding a liter of saline to a patient with pulmonary edema will make his breathing significantly worse and could push him into respiratory failure. The instinct to give fluids when a patient looks unwell must be overridden by the clinical picture. Read the whole picture first.

E. Place Sutton flat with legs elevated to improve venous return. This is the correct position for hypovolemia. It is the wrong position for hypervolemia. Lying Sutton flat will cause fluid to redistribute from his legs into his lungs and make his respiratory status immediately worse. This is the position mix-up that costs patients their airway.

Common NGN Question Stems for This Skill.

- Which nursing interventions should the nurse implement first?
- The nurse is planning care for this client. Which actions are appropriate at this time? Select all that apply.
- Which action should the nurse take next?
- The nurse anticipates which provider orders for this client?

- Which intervention is the nurse's priority at this time?

Notice what all of these have in common. They are asking you to act, but with purpose. Every action must be tied to the clinical picture. Random good nursing care is not the right answer. Purposeful hypothesis-driven care is.

NGN Stem 5.

CJMM Skill: Evaluate Outcomes.

Sutton has received IV furosemide, supplemental oxygen via a non-rebreather mask, and has been sitting upright in high Fowler's position for two hours. Which findings indicate that Sutton's condition is improving? Select all that apply.

- A. Urine output of 600 mL over the last two hours
- B. Potassium level of 3.1
- C. Oxygen saturation of 94% on 4L nasal cannula
- D. Respiratory rate of 18 with decreased work of breathing
- E. Crackles are now present only at the bilateral bases
- F. Blood pressure of 178/102
- G. Sutton reports he feels like he can breathe a little easier
- H. Weight decreased by 2.4 pounds from admission weight

What Is This Question Actually Asking You?

This question is in the Evaluate Outcomes Lane. Treatment has been initiated. Now you are being asked to review the new data and determine which metrics are moving in the right direction and which are not.

The trap here is assuming that any improvement means everything is fine. Some values are moving in the right direction. One finding is a complication of the treatment itself. You have to evaluate each finding individually and know what is good news and what still needs attention.

Correct Answers: A, C, D, E, G, H.

Why Are These Correct?

A. Urine output of 600 mL over the last two hours. Sutton received furosemide. A urine output of 600 mL in 2 hours indicates the diuretic is working. Fluid is leaving the body. This is exactly what you want to see.

C. Oxygen saturation of 94% on 4L nasal cannula. Sutton arrived with an oxygen saturation of 88% on room air. An improvement to 94% on a 4L nasal cannula indicates the lungs are clearing and oxygenation is improving. He has also stepped down from a non-rebreather mask to a nasal cannula, which indicates his oxygen requirement has decreased.

D. Respiratory rate of 18 with decreased breathing. Sutton arrived breathing at 28 with accessory muscle use. A respiratory rate of 18 with decreased breathing indicates that pulmonary edema is improving.

E. Crackles are now present only at the bilateral bases. Sutton arrived with crackles from the bases to the mid lung fields. Crackles present only at the bases tell you fluid is clearing from the upper lung fields. This is one of your most direct indicators that the diuresis is working.

G. Sutton reports he feels like he can breathe a little easier. Subjective improvement from a patient in respiratory distress is meaningful. In combination with the objective findings, this confirms the treatment is working.

H. Weight decreased by 2.4 pounds from admission weight. One liter of fluid is 2.2 pounds. A weight decrease of 2.4 pounds tells you approximately one liter of excess fluid has been removed from Sutton's body. That is the diuresis working exactly the way it should.

Why Are Others Wrong?

B. Potassium level of 3.1. Normal potassium is 3.5 to 5.0. A level of 3.1 is low. Furosemide removes potassium from the body along with excess fluid. This is a known and common complication of diuretic therapy. This is not an improvement finding. This is a new problem created by the treatment. Potassium replacement needs to be addressed, and the cardiac monitor needs close attention.

F. Blood pressure of 178/102. Sutton arrived with a blood pressure of 158/96. His blood pressure has gone up, not down. This is not an improvement finding. As fluid is removed from the body, blood pressure should start to normalize. A rising blood pressure in this context needs to be reported to the provider.

Common NGN Question Stems for This Skill.

- The nurse is evaluating the client's response to treatment. Which findings indicate the interventions have been effective?
- Which assessment findings suggest the client's condition is improving?

- The nurse notes the following changes in the client's condition. Which findings require follow-up?
- After reviewing the updated laboratory values, the nurse determines which of the following indicates a therapeutic response?
- Which client finding indicates that the nurse should notify the provider?

Notice what all of these have in common. They are asking you to measure change. Not what to do. Not what is wrong. Is this patient getting better or not?+ And the answer requires you to know what normal looks like and compare it against what you are seeing right now.