Shadow Health

Shadow Health Faculty Debriefing Guide

Pediatrics DCE

This guide will provide comprehensive faculty debriefing resources for the Shadow Health Pediatrics DCE patient encounters. Debriefing resources will include key takeaways, customizable questions, and scripted prompts to facilitate discussion.

Contents in Shadow Health Faculty Debriefing Guide: Pediatrics DCE

Introduction and Utilization

Debriefing after a patient encounter is a crucial component of nursing education, offering students a structured opportunity to reflect on their clinical experiences. It allows them to process what occurred, analyze their clinical decision-making, and gain insight into their strengths and areas for improvement. The same is true after nursing students go through a Shadow Health patient encounter. Through guided discussion, students can connect theory to practice, reinforce clinical skills, and deepen their understanding of patient-centered care. Debriefing also fosters critical thinking, emotional intelligence, and professional development by encouraging open dialogue about challenges, ethical dilemmas, and interpersonal communication. Ultimately, it enhances learning outcomes and prepares nursing students for real-world practice by transforming experience into meaningful growth.

This document will go through each of the Pediatrics DCEs and give you some ideas on how to debrief with your students in a meaningful way. Pick and choose from a list of questions to customize the discussion for your students or follow our script to help create a meaningful discussion and learning opportunities for your students.

Debrief Focused Exam: Respiratory Syncytial Virus (Eden Wu)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What key assessment findings helped you identify Eden Wu was experiencing respiratory distress related to RSV? Describe both subjective and objective data you collected.
- How did you prioritize your nursing assessments for Eden? Explain your rationale for the order in which you gathered information.
- Explain the pathophysiology of RSV and how it caused Eden's specific symptoms (e.g., wheezing, increased work of breathing, hypoxemia). Connect the disease process to your clinical findings.
- Why are infants like Eden particularly vulnerable to severe RSV infections? Consider anatomical and physiological factors.
- What transmission-based precautions are required for RSV, and why are they critical in preventing hospital-acquired infections? Describe specific actions you would take as Eden's nurse.
- What nursing interventions did you implement to support Eden's breathing and hydration? Explain how each intervention addresses the underlying problem.
- How would you educate Eden's parents about suctioning, feeding strategies, and monitoring at home? Include specific techniques they should use.
- What findings would indicate Eden's condition is worsening and requires immediate intervention? Identify red flags that would prompt you to escalate care.
- Which patients are at highest risk for severe RSV complications? Consider comorbidities and age factors that increase vulnerability.
- What was the most challenging aspect of caring for Eden in this simulation? Reflect on what you learned and how you would approach a similar patient differently in the future.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. What transmission-based precautions are required for Eden, and why is hand hygiene critical?
    - Rationale: RSV spreads through direct contact with respiratory secretions and contaminated surfaces—not airborne transmission. The virus survives over 6 hours on hard surfaces and up to 2 hours on tissues and fabrics. Contact isolation precautions prevent spread to other vulnerable infants. Healthcare workers can be carriers, making meticulous hand hygiene before and after patient contact essential. Students should recognize that touching contaminated surfaces and then touching their eyes, nose, or mouth is a primary transmission route.
2. What assessment findings indicate Eden is developing respiratory distress, and which finding requires immediate intervention?
    - Rationale: Priority nursing diagnosis is ineffective breathing pattern. Students must recognize escalating signs: tachypnea, tachycardia (indicating hypoxemia), retractions, wheezing, crackles, and decreased oxygen saturation below 90-95%. Critical concept: A child who was wheezing but suddenly has a "quiet chest" on auscultation may be at risk for respiratory arrest—this is an emergency. Higher-pitched wheezes indicate more severe airway constriction. Students should understand that reporting vital sign changes and breath sound abnormalities is essential for preventing deterioration.
3. What interventions maintain Eden's hydration status, and how do you monitor for dehydration?
    - Rationale: Infants with RSV often have difficulty feeding due to respiratory distress and copious secretions. Monitoring IV fluids, recording strict intake and output, and ensuring minimum urine output of 1-2 mL/kg/hour are essential. Daily weights detect early dehydration. Parents can offer small amounts of oral rehydration solutions (5-10 mL every 10 minutes using a medication syringe). Suctioning with bulb syringe after

instilling normal saline drops before feedings helps infants breathe and eat more easily. Students should connect respiratory distress to decreased oral intake and the risk of dehydration.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection.

Opening

- Let's debrief the RSV case with Eden Wu. This is a critical scenario because RSV is the most common cause of bronchiolitis and pneumonia in children under 1 year and the leading cause of hospitalization in children under 5. Let's talk through your clinical reasoning and nursing priorities.

Question 1: Infection Control

- First, let's discuss transmission. What precautions did you implement for Eden, and why are they so critical in the hospital setting?
- Remember:
    - RSV spreads by direct contact with respiratory secretions—contaminated hands touching mucous membranes (eyes, mouth, nose)
    - The virus survives more than 6 hours on hard surfaces like countertops and up to 2 hours on tissues and fabrics
    - Contact and Standard Precautions are essential; some facilities add Droplet Precautions
    - Meticulous hand washing is the most important step to prevent hospital-acquired infections
    - Staff must avoid touching their own nasal mucosa or conjunctiva
    - Organize assignments so nurses caring for RSV patients aren't also caring for high-risk patients
    - Why does this matter? Hospital-acquired RSV infection is a major problem because caregivers may be carrying the organism to other vulnerable children.

Question 2: Respiratory and Nutritional Support

- What nursing interventions did you prioritize to address Eden's breathing difficulties and feeding challenges?
- Examples:
    - Airway clearance: Instill normal saline drops and suction with bulb syringe before feedings and bedtime
    - Hydration monitoring: Copious secretions interfere with breathing and feeding; offer small amounts (5-10 mL) frequently using a medication syringe
    - Monitor for complications: Coughing/vomiting from secretions settling in throat and stomach
    - Support breastfeeding: Encourage continuation or pumping/storing milk if feedings contraindicated
    - Ongoing assessment: Pulse oximetry, IV/NG fluids, fever monitoring, prescribed medications

Question 3: High-Risk Populations

- Which children are at highest risk for severe RSV disease, and how would that change your teaching to families?
- Key points:
    - Premature infants and children with cardiopulmonary disease (37% mortality in infants with congenital heart disease)

- Children with cystic fibrosis, bronchopulmonary dysplasia, or immunocompromised status
- Reinfection is common—infection doesn't create immunity

Closing

- Most infants recover quickly, but remember: children hospitalized for RSV are three times more likely to have lower lung dysfunction at age 6 and higher asthma rates later. Your infection control and supportive care truly matter.

Debrief Focused Exam: Asthma Exacerbation (Gabriel Martinez)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What key assessment findings indicated Gabriel was experiencing an asthma exacerbation? Describe both subjective symptoms (e.g., chest tightness, dyspnea) and objective data (e.g., wheezing, respiratory rate, oxygen saturation, use of accessory muscles).
- How did you determine the severity of Gabriel's asthma attack (mild, moderate, or severe)? What specific criteria guided your assessment?
- Explain the pathophysiology of an asthma exacerbation. How do bronchospasm, airway inflammation, and mucus production contribute to Gabriel's symptoms?
- Why is a "silent chest" considered an ominous sign during a severe asthma attack? What does this finding indicate about airflow and the patient's condition?
- What is the difference between "controller" and "reliever" medications in asthma management? Which type would you administer during Gabriel's acute exacerbation, and why?
- How would you assess whether Gabriel is using his inhaler correctly? What teaching points are essential for proper inhaler technique?
- What immediate nursing interventions did you implement to support Gabriel's breathing? Consider positioning, oxygen therapy, medication administration, and monitoring strategies.
- What objective measurements (PEFR, oxygen saturation, vital signs) would you monitor to evaluate Gabriel's response to treatment? What values indicate improvement versus deterioration?
- How would you educate Gabriel about recognizing early warning signs of an asthma exacerbation and when to seek help? Include the importance of an asthma action plan and adherence to controller medications.
- What assessment findings would indicate Gabriel needs immediate transfer to an acute care facility or ICU? Identify red flags such as altered mental status, inability to speak in sentences, severe hypoxemia, or signs of impending respiratory failure.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. What assessment findings indicate Gabriel is experiencing a severe asthma attack versus a mild-to-moderate attack, and what is the significance of a "silent chest"?
    - Rationale: Students must differentiate severity levels to prioritize interventions appropriately. Mild-to-moderate attacks present with O_2 saturation >90%, PEFR >50% of predicted, ability to speak in sentences, and audible wheezing. Severe attacks show respiratory rate >30 breaths/min, use of accessory muscles (sternocleidomastoid, intercostal, supraclavicular retractions), inability to speak in complete sentences (only 2-5 words per breath), agitation or confusion from hypoxemia, and sitting forward to maximize diaphragmatic movement. Critical concept: A "silent chest" with absent or severely diminished breath sounds is an ominous sign of life-threatening airflow obstruction and impending respiratory failure requiring immediate notification of the healthcare provider. Wheezing is unreliable. Patients with severe attacks may not wheeze due to insufficient airflow.
2. What is the priority nursing intervention for Gabriel during an acute asthma attack, and what medications would you anticipate administering?
    - Rationale: The priority is correcting hypoxemia and improving ventilation. Administer oxygen therapy to achieve PaO_2 ≥60 mm Hg or O_2 saturation >90%. Anticipate short-acting beta$_2$-agonists (SABAs) for bronchodilation and corticosteroids (oral if the patient can swallow; IV if not) to reduce airway inflammation. Continuously monitor vital signs, work of breathing, oxygen saturation with pulse oximetry, and serial PEFR

measurements (if obtainable) to assess response to therapy. Students should understand that symptoms may diminish after medication but often recur, requiring continued therapy even after clinical improvement.

3. What patient education would you provide Gabriel about his asthma action plan to prevent future exacerbations?
    - Rationale: Review Gabriel's asthma action plan, emphasizing trigger avoidance, proper inhaler technique, importance of daily controller medications (inhaled corticosteroids), and when to use rescue inhalers. Teach recognition of early warning signs (increased cough, chest tightness, decreased PEFR) and when to seek emergency care. Stress the importance of follow-up appointments with his healthcare provider after an acute attack.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection:

Opening

- Let's debrief Gabriel's asthma exacerbation. Understanding how to recognize severity and respond appropriately can prevent progression to status asthmaticus—a life-threatening emergency. Let's walk through your clinical reasoning.

Question 1: Recognizing Severity

- What assessment findings helped you determine the severity of Gabriel's asthma attack? What's the difference between mild/moderate versus severe exacerbation?
- Reinforce:
    - Mild/Moderate:
        - Alert, oriented, speaks in sentences
        - O_2 saturation >90% on room air
        - PEFR >50% of predicted or personal best
        - Respiratory rate elevated but manageable
    - Severe:
        - Respiratory rate >30 breaths/min
        - Speaks only 2-5 words between breaths
        - Accessory muscle use (sternocleidomastoid, intercostal, supraclavicular retractions)
        - Sitting upright, leaning forward
        - Agitated, restless, or confused from hypoxemia
        - PEFR <200 L/min or <50% predicted
- Here's the critical teaching point: What does a 'silent chest' mean?
    - Absence of wheezing doesn't mean improvement—it signals severe airflow obstruction and impending respiratory failure. The patient can't move enough air to produce sound. This is an ominous sign requiring immediate HCP notification.

Question 2: Pathophysiology and Interventions

- What's happening in Gabriel's airways during an acute attack, and how do our interventions address the pathophysiology?
- Key points:
    - Bronchospasm, mucosal edema, and mucus plugging narrow airways
    - Air trapping and hyperinflation occur—prolonged expiratory phase (I:E ratio 1:3 or 1:4 instead of normal 1:2)
    - Interventions: O_2 therapy (goal PaO_2 ≥60 mm Hg or SpO_2 >90%), inhaled corticosteroids, SABAs, continuous monitoring

- Position: Semi- to high-Fowler's to maximize chest expansion

Question 3: Anxiety Management

- Gabriel is likely anxious and panicking. What nursing strategies reduce anxiety during an acute attack?
- Key Points:
  - Stay with the patient
  - Use calm, reassuring presence
  - "Talking down" technique: Gain eye contact, use firm calm voice, coach pursed-lip breathing to keep airways open
  - Position comfortably (usually sitting upright)
  - Provide quiet, calm environment

Closing

- Remember: Symptoms may improve after medication but often recur. Recovery takes days—bronchospasm resolution, edema reduction, and mucus plug elimination don't happen immediately. Continue therapy even after clinical improvement.

Debrief Focused Exam: Traumatic Brain Injury (Damien Brooks)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What was the most important variable you assessed in Damien's neurological status, and why? Explain how changes in level of consciousness (LOC) serve as an early indicator of deterioration.
- Describe Damien's Glasgow Coma Scale (GCS) score and what each component revealed(eye opening, verbal response, motor response). What GCS change would require immediate notification of the provider?
- Explain the difference between primary and secondary brain injury. What factors can contribute to secondary brain injury, and how can nursing interventions prevent it?
- What is increased intracranial pressure (ICP), and why is it life-threatening after TBI? Describe the signs and symptoms you would monitor for in Damien.
- Why is airway management the first priority in TBI patients? What specific respiratory assessments and interventions are critical to prevent hypoxemia and hypercapnia?
- How do changes in carbon dioxide levels ($PaCO_2$) affect cerebral blood flow and ICP? What is the target $PaCO_2$ range for patients with TBI?
- What blood pressure parameters should be maintained in TBI patients, and why? Explain how hypotension or severe hypertension can worsen outcomes.
- What pupillary changes would indicate neurological deterioration or brain herniation? Describe what "blown pupils" signify and why this is a critical finding.
- What nursing interventions help prevent increases in ICP? Consider positioning, environmental modifications, preventing Valsalva maneuvers, and managing fever.
- What key teaching points would you provide to Damien's family about recovery expectations, behavioral changes, and home safety? Include the importance of structured routines and when to seek follow-up care.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. What is the most important assessment finding to monitor in Damien, and what changes would indicate neurologic deterioration requiring immediate intervention?
    - Rationale: Level of consciousness (LOC) is the most critical variable to assess with any brain injury—it's typically the first sign of deterioration. Students must recognize early indicators like behavioral changes (restlessness, irritability), disorientation, increased sleepiness, or increased combativeness. A decrease of 2 points or more on the Glasgow Coma Scale is clinically significant and requires immediate notification of the provider or Rapid Response Team. Pupillary changes are equally critical: asymmetric pupils, loss of light reaction, or dilated fixed pupils indicate potential brain herniation from increased ICP. Students should understand that "blown pupils" (fixed and dilated) are a poor prognostic sign requiring emergency intervention.
2. What vital sign parameters must be maintained to prevent secondary brain injury, and why is hypotension particularly dangerous for Damien?
    - Rationale: Preventing secondary brain injury requires maintaining adequate cerebral perfusion. Systolic blood pressure should be maintained >100 mm Hg (ages 50-69) or >110 mm Hg (ages 15-49 and >70) per Brain Trauma Foundation guidelines. Hypotension in TBI patients is rare and may indicate coexisting injuries requiring immediate investigation. ICP should be kept <20 mm Hg, and cerebral perfusion pressure (CPP) maintained between 60-70 mm Hg. Students must understand that hypoxemia (SpO_2 <90%) and hypercarbia ($PaCO_2$ >40-45 mm Hg) both cause cerebral vasodilation and worsen ICP, while hypocarbia from aggressive hyperventilation causes vasoconstriction and ischemia. Continuous monitoring of oxygen saturation and end-tidal CO_2 is essential.

3. What nursing interventions help prevent increased ICP, and which activities should be avoided?
    - Rationale: Students should identify interventions that minimize ICP elevations: maintaining head of bed at 30 degrees, keeping head midline to promote venous drainage, avoiding hip flexion >90 degrees, preventing coughing and straining, maintaining normothermia using targeted temperature management, and providing 100% oxygen before/after suctioning. Avoid aggressive hyperventilation during the first 24 hours post-injury. Recognize that fever increases metabolic demand and worsens outcomes—all fever sources must be investigated and treated.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection.

Opening

- Let's debrief Damien's TBI case. Brain injury management is time-sensitive—secondary brain injury from increased ICP is the leading cause of death in patients who reach the hospital alive. Let's discuss your priority assessments and interventions.

Question 1: ABCs and Neurologic Assessment

- What were your first priorities when assessing Damien, and why do we treat all head trauma patients as potential spinal cord injuries?
- Reinforce:
    - Airway, Breathing, Circulation first! Cervical spine precautions until radiography rules out injury—older adults are especially prone to C1-C2 injuries.
- What's the single most important variable to assess with any brain injury?
- Reinforce:
    - Level of consciousness (LOC)—it's typically the first sign of deterioration. Early indicators are subtle: restlessness, irritability, disorientation, increased sleepiness, or combativeness.
    - Glasgow Coma Scale:
        - Document baseline and reassess frequently
        - A 2-point drop is clinically significant—notify provider immediately
        - GCS ≤9 with abnormal CT may require ICP monitoring
    - Pupillary Assessment:
        - Asymmetric pupils, loss of light reaction, or dilated pupils = treat as herniation until proven otherwise
        - Fixed, dilated "blown" pupils = poor prognosis
        - Remember: pinpoint pupils indicate brainstem dysfunction at pons level

Question 2: Preventing Secondary Brain Injury

- What interventions prevent or detect secondary brain injury from increased ICP?
- Key points:
    - Vital Signs:
        - Monitor every 1-2 hours or more frequently
        - Cushing's triad (severe hypertension, widened pulse pressure, bradycardia) = imminent death—very late sign
    - Respiratory Management:
        - Maintain PaO_2 80-100 mm Hg; prevent hypoxemia
        - Avoid hyperventilation in first 24 hours—causes vasoconstriction and ischemia
        - CO_2 is a potent vasodilator that increases ICP
        - Provide 100% O_2 before/after suctioning; avoid aggressive hyperventilation

- Temperature:
  - Maintain normothermia using targeted temperature monitoring (TTM)
  - Fever increases morbidity/mortality
  - Manage shivering (increases metabolic demand)
- Positioning:
  - Prevent Valsalva maneuver—increases ICP
  - Plan 1-hour uninterrupted rest periods between activities

Question 3: Late Signs and Complications

- What are late signs of increased ICP you'd monitor for?
  - Severe headache, projectile vomiting, seizures
  - Papilledema (optic disc edema—always indicates increased ICP)
  - Abnormal posturing or flaccidity

Closing

- Normal ICP is 10-15 mm Hg; sustained pressure >20 mm Hg causes neuronal death. Cerebral edema peaks 3-4 days post-injury—remain vigilant throughout this critical period.

Debrief Focused Exam: Type 1 Diabetes (Chelsea Warren)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What signs and symptoms indicated Chelsea was experiencing hyperglycemia? Describe both subjective complaints (polydipsia, polyuria, polyphagia) and objective findings you assessed.
- How would you differentiate between hypoglycemia and hyperglycemia based on your assessment findings? What are the key distinguishing features of each condition?
- Explain why Chelsea's pancreas can no longer produce insulin and how this leads to her symptoms. Connect the autoimmune destruction of beta cells to the classic manifestations of Type 1 diabetes.
- What is diabetic ketoacidosis (DKA), and what assessment findings would indicate Chelsea is developing this life-threatening complication? Include signs like Kussmaul respirations, fruity breath odor, and altered mental status.
- When should Chelsea check her blood glucose levels, and what are the target ranges? Explain the importance of monitoring before meals, after meals, and during illness.
- What should Chelsea do if her blood glucose exceeds 250 mg/dL? Include checking for ketones and the importance of maintaining hydration and insulin therapy.
  Explain the difference between basal and bolus insulin. How do these work together to mimic normal pancreatic function and maintain glucose control?
- What factors affect insulin absorption and action? Consider injection site, technique, timing, and the impact of exercise and meals.
- What "sick-day rules" should Chelsea follow when she's ill? Why is it critical that insulin therapy never be omitted during illness, even if she's not eating normally?
- What are the most important survival skills Chelsea needs before discharge? Reflect on insulin administration technique, blood glucose monitoring, recognizing hypo/hyperglycemia, and when to contact her healthcare provider.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. What strategies did you use to assess Chelsea's health literacy and ability to manage her diabetes self-care? How would you modify your teaching approach if you discovered she had difficulty reading medication labels or understanding mathematical calculations for insulin dosing?
    - Rationale: Health literacy directly influences teaching strategies. Students should recognize the importance of assessing literacy through practical skills like reading labels back, explaining information, and demonstrating teach-back. Learning disabilities affecting math skills are particularly relevant for insulin dosing.
2. What did you identify as Chelsea's top learning priorities? How did you balance what she felt was most important with the clinical priorities for safe diabetes management?
    - Rationale: Patients are more receptive to learning when education addresses what they identify as most important. Students should practice allowing patients to guide priorities while ensuring essential safety education is included.
3. What potential barriers to learning or self-management did you identify for Chelsea (e.g., social support, financial resources, physical limitations, emotional factors)? How would you adapt your teaching plan to address these barriers?
    - Rationale: Comprehensive learner assessment includes identifying barriers like lack of social support, financial constraints, physical limitations (manual dexterity for injections), and emotional readiness. Students should consider age, developmental stage, and motivation when individualizing education plans.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection.

Opening

- Invite Reflection: Let's debrief your Shadow Health experience with Chelsea Warren. What were your initial impressions when you first met Chelsea? What stood out to you about her situation?

Assessment Discussion

- Health Literacy and Learning Needs:
    - How did you assess Chelsea's readiness to learn about managing her new Type 1 diabetes diagnosis?
    - What factors did you consider regarding her health literacy? Did you notice any barriers to learning?
    - Chelsea is newly diagnosed—what did you identify as her priority learning needs versus what can wait for follow-up?
    - Key Teaching Point: Patients who are acutely ill or newly diagnosed require basic survival skills first. Detailed education should be reserved for when they're ready to learn.

Patient Education Planning

- Explore Teaching Strategies:
    - What teaching methods did you use? How did you adapt your approach to Chelsea's learning style?
    - Did you assess her ability to perform psychomotor skills like blood glucose monitoring or insulin administration?
    - How did you verify her understanding? Did you use teach-back techniques?
- Address Common Pitfalls:
    - What challenges did you encounter when explaining complex concepts like insulin dosing or carbohydrate counting?
    - How did you ensure your instructions were clear and avoided medical jargon?
- Evaluation and Affective Domain:
    - How did you address the affective dimension—Chelsea's feelings about living with a chronic disease?
    - What factors might affect her adherence to the diabetes management plan?
    - Discuss barriers: lack of understanding, financial concerns, social support, motivation, and previous experiences.

Closing

- What would you do differently next time?
- What key takeaways will you apply to future patient education scenarios?

Debrief Focused Exam: Long Bone Fracture (Landon Smith)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What are the "6 P's" of neurovascular assessment, and what did each reveal about Landon's circulation and nerve function? Describe your findings for pain, pressure, paresthesia, pallor, paralysis, and pulselessness.
- Why is frequent neurovascular assessment critical for patients with long bone fractures? What timeframe is most important for detecting complications like compartment syndrome?
- What is compartment syndrome, and what assessment findings would indicate Landon is developing this complication? Explain why pain out of proportion to injury and pain with passive muscle stretch are early warning signs.
- If you suspected compartment syndrome, what immediate actions would you take? Consider positioning (do NOT elevate above heart level), notifying the provider, and potential interventions like cast bivalving or fasciotomy.
- What instructions would you provide Landon about cast care at home? Include elevation techniques, ice application, exercises for joints above and below the cast, and what to avoid (no scratching or inserting objects).
- What signs and symptoms should Landon report immediately to his healthcare provider? Focus on indicators of impaired circulation, infection, or cast complications like tightness, numbness, increased pain, or foul odor.
- How would you differentiate between expected post-fracture pain and pain that signals a complication? What characteristics of pain would prompt immediate provider notification?
- What weight-bearing restrictions and assistive devices might Landon need? How would you assess his understanding of safe ambulation and fall prevention?
- What other acute complications should you monitor for in patients with long bone fractures? Consider fat embolism syndrome (early signs: hypoxemia, dyspnea, tachypnea, confusion, petechial rash).
- What was most challenging about prioritizing Landon's care needs? Reflect on how you would recognize early versus late signs of complications and the importance of timely intervention.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. What did you identify as Landon's expectations and priorities for his recovery? How did his perspective on returning to activities (sports, school, daily life) influence what education you prioritized?
    - Rationale: Partnering with patients requires understanding their expectations for learning and what information they perceive as needed to maintain self-care and monitor recovery correctly. For an orthopedic patient, motivation often centers on return to function and independence.
2. What did Landon already know about fracture care and pain management? How did you build your teaching on his preexisting knowledge rather than starting from scratch? What new cognitive or psychomotor skills did he need to develop?
    - Rationale: Patients learn best when instruction builds on what they already know. Students should assess the patient's current understanding of the injury, healing process, and self-care, then layer new information (cast care, crutch walking, pain management) onto that foundation.
3. What barriers to learning or self-care did you identify for Landon (age, physical limitations from the fracture, social support, financial resources)? Did you assess whether family involvement was appropriate, and how would you include or exclude family caregivers in your teaching plan?

- Rationale: Comprehensive learner assessment includes identifying barriers like physical limitations affecting mobility, lack of social support, or financial constraints. Family caregivers often require as much education as patients, but nurses shouldn't assume family should be involved—assess the patient-family relationship first to avoid conflicts.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection:

Opening

- Invite Reflection: Let's debrief your Shadow Health experience with Landon Smith. What was your initial assessment when you encountered a patient with a long bone fracture? What safety concerns came to mind first?

Neurovascular Assessment

- Critical Monitoring:
  - Walk me through your neurovascular assessment. What specific findings did you document for circulation, motor function, and sensation?
  - How frequently did you perform these assessments, and why is timing so critical with fracture patients?
  - What signs would alert you to potential compartment syndrome?
- Key Teaching Point:
  - Pain unrelieved by medication and out of proportion to the injury, plus pain on passive muscle stretch, are early indicators of compartment syndrome. Pulselessness and paralysis are late signs.
- Address Common Pitfalls:
  - If you suspected compartment syndrome, would you elevate the extremity? Why or why not?
  - What's the rationale for avoiding elevation above heart level and cold compresses in suspected compartment syndrome?

Pain Management

- Explore Assessment:
  - How did you assess Landon's pain using a 0-10 scale? Did the pain level match the expected injury severity?
  - What comfort measures did you consider beyond medication—repositioning, splinting alignment, ice application?
  - How does proper alignment reduce pain in fracture patients?

Patient Education and Discharge Planning

- Cast Care and Complications:
  - What cast care instructions did you provide? How did you teach Landon to recognize complications?
  - What signs of impaired circulation or nerve function should he report immediately?
  - Did you discuss activity restrictions, elevation techniques, and exercises for joints above and below the cast?
- Common Misconceptions:
  - Why shouldn't patients stick objects inside casts to scratch? What alternatives did you suggest?

Closing

- Synthesize Learning:
  - What would you prioritize differently in your next fracture patient assessment?
  - What's your key takeaway about neurovascular monitoring?

Debrief Continuum of Care: Congestive Heart Failure (Isabella Burgel)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What key assessment findings indicated Isabella was experiencing heart failure exacerbation? Describe both subjective symptoms (dyspnea, orthopnea, fatigue) and objective data (crackles, edema, jugular vein distention, weight gain).
- How did you prioritize your cardiovascular and respiratory assessments for Isabella? Explain your rationale for assessing heart sounds, lung sounds, peripheral edema, and vital signs.
- Explain how left-sided heart failure leads to pulmonary congestion and the symptoms Isabella experienced. Connect decreased left ventricular function to increased pulmonary venous pressure and fluid accumulation in the lungs.
- What is the difference between left-sided and right-sided heart failure? How do the clinical manifestations differ, and can Isabella have both?
- What interventions help reduce fluid overload in heart failure patients? Consider diuretic therapy, fluid restriction, sodium restriction, and daily weight monitoring.
- Why is daily weight monitoring critical for Isabella? What amount of weight gain over what timeframe should prompt her to contact her healthcare provider?
- What medications are commonly prescribed for heart failure, and what is the purpose of each class? Consider diuretics, ACE inhibitors/ARBs, beta-blockers, and aldosterone antagonists.
- Before administering digoxin or beta-blockers, what vital sign must you assess and why? What parameters would cause you to hold the medication and notify the provider?
- What assessment findings would indicate Isabella is developing acute pulmonary edema? Include signs like severe dyspnea, use of accessory muscles, respiratory rate >30, frothy blood-tinged sputum, anxiety, and clammy skin.
- What are the most important self-management strategies Isabella needs to prevent rehospitalization? Reflect on medication adherence, dietary sodium restriction (1.5-2g/day), fluid management, daily weights, activity modification, and recognizing worsening symptoms.

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. How did you assess Isabella's health literacy and ability to understand her HF self-management plan? What specific teach-back questions did you use to confirm she could explain her medications, dietary restrictions, and daily weight monitoring in her own words?
    - Rationale: Health literacy is essential for HF self-management. Many HF patients are readmitted because they don't maintain their treatment plan. The teach-back method is associated with lower 30-day readmission rates. Students should assess whether Isabella can read medication labels correctly, explain instructions after a brief demonstration, and describe written handout information accurately.
2. Which components of the MAWDS self-management plan (Medications, Activity, Weight monitoring, Diet, Symptoms) did you prioritize for Isabella? How did you tailor your education to address her specific lifestyle challenges, such as diet modification, weight management, sleep patterns, stress reduction, and concerns about returning to work or daily activities?
    - Rationale: Standardized self-management plans like MAWDS provide structure, but learning needs assessment is critical to tailor education to the patient's particular needs to see behavior changes and improved outcomes. Cardiac education should address alterations in lifestyle, medication management, and concerns about return to normal activities.
3. What barriers to self-management did you identify for Isabella (financial resources for medications/diet, social support, physical limitations, emotional readiness)? How would you involve family or caregivers in her education plan, and what resources would you provide to support adherence after discharge?

- Rationale: Extensive discharge instructions are needed for HF patients. Medication reconciliation ensures similar drugs aren't duplicated. Students should identify barriers that might prevent Isabella from maintaining her treatment plan and consider whether group classes (offering peer support) or one-to-one teaching would be most effective.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection.

Opening

- Invite Reflection: Let's debrief your Shadow Health experience with Isabella Burgel. What were your initial concerns when you encountered a patient with heart failure? What assessment findings indicated fluid volume overload?

Fluid Volume Assessment

- Critical Monitoring:
  - Walk me through your assessment for fluid retention. Did you check for pedal edema, jugular vein distention, and lung crackles?
  - What questions did you ask about recent weight changes, clothing or ring tightness, and shortness of breath?
  - Did you assess for paroxysmal nocturnal dyspnea (PND) or nocturia? Why are these significant?
- Key Teaching Point:
  - Daily weights are the most reliable indicator of fluid status. A 2-3 pound gain in 24 hours or 5 pounds in a week signals fluid retention requiring intervention.
- Address Common Pitfalls:
  - If Isabella is on diuretics, what electrolyte imbalances should you monitor? What signs indicate hypokalemia—dysrhythmias, muscle weakness, cramps?
  - Why is urine output less than 30 mL/hour concerning?

Medication Management

- Explore Understanding:
  - What did you assess regarding medication compliance? Did you ask about side effects?
  - How did you explain the purpose of diuretics, ACE inhibitors, or beta blockers in managing heart failure?
  - What teaching did you provide about monitoring for adverse effects?

Dietary and Lifestyle Modifications

- Patient Education:
  - What sodium restriction did you discuss? How did you explain the 1.5 g sodium limit?
  - Did you provide practical tips—avoiding high-sodium foods, not adding salt, limiting milk products to two cups daily?
  - If fluid restriction was ordered, how did you help Isabella manage thirst? Small containers, frequent mouth care?

Activity and Symptom Management

- Daily Living:
  - How did you balance activity with rest to reduce oxygen demand?

- What discharge instructions did you prioritize—when to call the provider, daily weights, worsening symptoms?

Closing

- Synthesize Learning:
  - What would you assess first in your next heart failure patient?
  - What's your key takeaway about managing fluid overload?

Debrief Focused Exam: Cystic Fibrosis (Kyle Reeves)

10 Minutes or Less

If you have 10 minutes or less, choose a few key questions from this list to focus your debrief and highlight the most important takeaways for your students:

- What key respiratory findings indicated Kyle's CF was affecting his pulmonary function? Describe objective data like chest congestion, crackles, decreased oxygen saturation, use of accessory muscles, and sputum characteristics.
- How does the thick, sticky mucus in CF lead to Kyle's respiratory symptoms? Connect impaired chloride transport and mucus plugging to airway obstruction, reduced gas exchange, and chronic infections.
- What airway clearance therapies are essential for Kyle's daily management? Explain chest physiotherapy (CPT), high-frequency chest wall oscillation (HFCWO vest), postural drainage, and breathing exercises like huffing.
- When should chest physiotherapy be performed, and why is timing important? Consider performing CPT at least twice daily (morning and evening) and before or after nebulizer treatments.
- What is the purpose of bronchodilators, mucolytics (like dornase alfa/Pulmozyme), and pancreatic enzymes in Kyle's treatment plan? Explain how each medication addresses specific CF complications.
- What are CFTR modulators (like ivacaftor, lumacaftor/ivacaftor, or elexacaftor/tezacaftor/ivacaftor), and how do they differ from traditional CF treatments? Describe how these medications treat the underlying protein defect rather than just symptoms.
- Why are patients with CF at high risk for respiratory infections, particularly Pseudomonas aeruginosa and Burkholderia cepacia? What infection control measures protect Kyle from cross-contamination with other CF patients?
- What signs indicate Kyle is experiencing a pulmonary exacerbation requiring intensified treatment? Include increased sputum production, decreased activity tolerance, fever, weight loss, and decreased FEV_1.
- Why does Kyle require pancreatic enzyme replacement, and when should these enzymes be taken? Explain the connection between CF, pancreatic insufficiency, and malabsorption of fats and fat-soluble vitamins.
- What dietary modifications support optimal nutrition for Kyle? Discuss the need for high-calorie, high-protein intake and supplementation with fat-soluble vitamins (A, D, E, K).

If you're really short on time, we can suggest the following 3 questions as some of the most important takeaways from this scenario:

1. Kyle has lived with CF his entire life—how did you balance providing education with respecting his existing expertise in managing his condition? What strategies did you use to maintain his personal control over his therapeutic regimen while identifying any gaps in knowledge or new teaching needs?
   - Rationale: Adult patients with CF have managed their therapeutic regimen as a way of life. Nurses should allow patients to maintain as much personal control as possible and try to maintain usual routines. Rather than assuming what Kyle needs to learn, assess

his current self-management practices and partner with him to identify areas where he wants support.

2. What airway clearance techniques (ACTs) and infection prevention strategies did you discuss with Kyle? How did you assess his adherence to his complex treatment regimen, and what barriers (time demands, fatigue, motivation) might interfere with consistent self-management.
    - Rationale: Goals of nursing care include maintaining a patent airway and prevention or treatment of infection. Measures to clear the airway include administering prescribed medications, maintaining hydration, and performing chest physiotherapy. CF imposes significant emotional and financial burden, and the complexity of daily treatments can affect adherence.
3. What psychosocial concerns did you identify for Kyle (employment goals, relationships, anxiety/depression, financial burden of care)? How would you address issues like disclosing his CF diagnosis to employers or potential partners, and what community resources would you recommend?
    - Rationale: There is higher incidence of anxiety and depression among persons with CF. Life transitions include identifying employment goals, developing motivation, and coping with treatment demands. Disclosing CF diagnosis to friends, potential spouses, and employers poses significant emotional, social, and financial challenges. The Cystic Fibrosis Foundation can be a source of information and support.

30 Minutes or More

If you have 30 minutes or more to debrief with students, we recommend following our debriefing script to support a thoughtful and comprehensive reflection.

Opening

- Invite Reflection: Let's debrief your Shadow Health experience with Kyle Reeves. What were your first priorities when assessing a patient with cystic fibrosis? How did you approach his respiratory status?

Respiratory Assessment and Airway Clearance

- Critical Monitoring:
    - Walk me through your respiratory assessment. What breath sounds did you hear? How did you assess his work of breathing and oxygen saturation?
    - What airway clearance techniques (ACTs) did you discuss with Kyle? Did you explore which methods he prefers in his daily routine?
    - How did you assess the effectiveness of his chest physiotherapy regimen?
- Key Teaching Point:
    - No single ACT is superior to others. Patient preference and adherence are critical. Options include high-frequency chest wall oscillation (HFCWO vest), postural drainage with percussion, breathing exercises, and huff coughing.
- Address Common Pitfalls:
    - Why is timing important when performing chest physiotherapy? When should it be avoided?
    - How do bronchodilators and mucolytics work together to improve airway clearance?

Infection Prevention and Management

- Explore Understanding:
  - What infection control measures did you discuss? Why is preventing cross-contamination between CF patients critical?
  - What organisms commonly infect CF patients? How did you explain the importance of sputum cultures?
  - Did you assess Kyle's understanding of when to report signs of exacerbation—increased cough, purulent sputum, decreased activity tolerance, or 10% FEV_1 decline?

Nutrition and Medication Management

- Comprehensive Care:
  - How did you assess Kyle's nutritional status and pancreatic enzyme replacement therapy?
  - What education did you provide about taking enzymes with meals and monitoring stool characteristics?
  - Did you discuss the importance of high-calorie, high-protein diet and fat-soluble vitamin supplementation?

Psychosocial Support

- Holistic Approach:
  - CF is a lifelong condition. How did you address Kyle's emotional well-being, independence, and quality of life?
  - What resources did you identify for ongoing support?

Closing

- Synthesize Learning:
  - What would you prioritize in your next CF patient encounter?
  - What's your key takeaway about managing this complex chronic condition?