

# **PRACTICE EXAM 4: NBRC CLINICAL SIMULATION EXAMINATION PREPARATION (100 QUESTIONS)**

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*This original study exam contains 100 scenario-based multiple-choice questions organized from the NBRC Clinical Simulation Examination outline effective through December 31, 2027. The live CSE contains 22 branching clinical simulation problems and allows four hours; this study format does not reproduce the proprietary interface. Select the single best response for each item.*

1. In an outpatient-to-acute-care transition, an adult patient with severe asthma is speaking in one-word phrases, has a silent chest, and is becoming drowsy despite repeated nebulized bronchodilator therapy. Which option represents the best immediate management?

- A. Obtain complete pulmonary function testing before changing therapy
- B. Prepare for immediate endotracheal intubation and mechanical ventilation
- C. Begin routine postural drainage and chest percussion treatments
- D. Discharge the patient with an updated inhaled steroid prescription

2. After the therapist identifies a new respiratory concern, an adult patient with COPD exacerbation has pH 7.28, PaCO<sub>2</sub> 68 mm Hg, is alert, cooperative, and using accessory muscles. What intervention most directly corrects the ventilatory abnormality?

- A. Initiate bilevel noninvasive positive-pressure ventilation
- B. Apply a nonrebreather mask without reassessing ventilation
- C. Perform immediate bronchoscopy for retained secretions
- D. Start incentive spirometry as the only respiratory treatment

3. During bedside rounds with the critical-care team, an intubated patient with status asthmaticus develops hypotension, rising peak pressure, and expiratory flow that does not return to baseline. Which action should receive immediate priority?

- A. Increase the mandatory respiratory rate to improve carbon dioxide removal
- B. Increase tidal volume to recruit additional underventilated alveoli
- C. Disconnect briefly and allow complete exhalation before ventilator adjustment
- D. Add external PEEP equal to the measured peak inspiratory pressure

**4.** When objective monitoring shows a meaningful clinical change, a stable outpatient with COPD reports increased dyspnea and has resting SpO<sub>2</sub> 88% on room air. Which test best establishes eligibility and prescription needs for home oxygen?

- A. Order a sputum culture before measuring oxygenation status
- B. Perform a methacholine challenge to confirm reversible obstruction
- C. Measure maximal expiratory pressure as the primary assessment
- D. Document arterial oxygenation at rest and titrate oxygen to response

**5.** As part of an advanced respiratory-care simulation, an adult patient with asthma uses an albuterol inhaler several times every day and awakens with symptoms three nights weekly. What recommendation best addresses long-term control?

- A. Add or intensify inhaled corticosteroid-containing controller therapy
- B. Continue rescue albuterol alone because it relieves current symptoms
- C. Begin continuous home oxygen despite normal resting saturation
- D. Replace inhaled medication with routine antibiotic administration

**6.** In an outpatient-to-acute-care transition, an adult with established COPD receiving 2 L/min oxygen becomes somnolent. ABG shows pH 7.25, PaCO<sub>2</sub> 76 mm Hg, PaO<sub>2</sub> 58 mm Hg. What treatment is indicated next?

- A. Discontinue all oxygen until the carbon dioxide level normalizes
- B. Increase oxygen to 15 L/min without ventilatory assistance
- C. Schedule outpatient spirometry and reassess in several weeks
- D. Support ventilation with bilevel NPPV while carefully titrating oxygen

**7.** After the therapist identifies a new respiratory concern, during bronchodilator treatment for acute asthma, heart rate rises from 104 to 150/min and the patient reports chest pain. What should the therapist do?

- A. Continue the full dose because tachycardia always resolves spontaneously
- B. Stop the treatment, assess the patient, and notify the provider
- C. Double the dose to overcome severe bronchial smooth-muscle constriction
- D. Switch immediately to chest physiotherapy without further assessment

**8.** During bedside rounds with the critical-care team, an adult with established COPD has thick secretions, an ineffective cough, and coarse rhonchi that improve after coughing. Which plan best targets the underlying respiratory problem?

- A. Increase sedative medication to reduce the work of breathing
- B. Restrict fluids and discontinue humidification to limit sputum
- C. Provide directed cough training with hydration and airway-clearance assistance
- D. Use high oxygen concentration as the sole secretion treatment

**9.** When objective monitoring shows a meaningful clinical change, an adult patient with severe COPD is intubated. Plateau pressure is 22 cm H<sub>2</sub>O, peak pressure is 46 cm H<sub>2</sub>O, and wheezing is present. What does this pattern suggest?

- A. Severe loss of chest-wall compliance without airway obstruction
- B. Increased airway resistance rather than reduced lung compliance
- C. A disconnected ventilator circuit causing loss of delivered pressure
- D. Normal airway mechanics requiring no further assessment

**10.** As part of an advanced respiratory-care simulation, an adult with asthma has a personal-best peak expiratory flow of 500 L/min and a current value of 230 L/min with dyspnea. How should this result be classified?

- A. Red-zone airflow limitation requiring urgent action

- B. Green-zone control appropriate for routine maintenance only
- C. Normal variability that requires no treatment adjustment
- D. A restrictive defect confirmed without additional testing

**11.** In an outpatient-to-acute-care transition, a mechanically ventilated COPD patient has auto-PEEP and breath stacking. Which ventilator change most directly increases expiratory time?

- A. Increase the respiratory rate to shorten each respiratory cycle
- B. Lengthen inspiratory time by reducing the inspiratory flow setting
- C. Reduce the respiratory rate while maintaining appropriate minute ventilation
- D. Add an inspiratory pause to every mandatory breath

**12.** After the therapist identifies a new respiratory concern, an adult patient with an acute COPD exacerbation is improving on NPPV. Which finding most strongly supports continuing the current approach?

- A. Increasing somnolence with worsening respiratory acidosis
- B. Persistent vomiting with inability to protect the airway
- C. Progressive hypotension despite appropriate volume assessment
- D. Decreasing respiratory rate with improving pH and mental status

**13.** During bedside rounds with the critical-care team, an adult patient prescribed an inhaled corticosteroid reports hoarseness and oral white patches. Which instruction is most appropriate?

- A. Swallow water immediately before inhalation and avoid mouth rinsing
- B. Stop all controller medication whenever symptoms are absent
- C. Take the medication only during sudden severe bronchospasm
- D. Use a spacer when appropriate and rinse the mouth after each dose

**14.** When objective monitoring shows a meaningful clinical change, spirometry shows FEV1/FVC below the lower limit of normal with significant improvement in FEV1 after bronchodilator. What is the best interpretation?

- A. Restrictive ventilatory defect proven by spirometry alone
- B. Normal pulmonary function without evidence of airflow limitation
- C. Obstructive ventilatory defect with bronchodilator responsiveness
- D. Isolated diffusion impairment requiring no volume measurement

**15.** As part of an advanced respiratory-care simulation, an adult with established COPD completing a six-minute walk develops SpO<sub>2</sub> 83% and marked dyspnea. What should the therapist do next?

- A. Encourage faster walking to complete the full distance on time
- B. Stop or pause the test, ensure safety, and provide indicated oxygen
- C. Ignore saturation because only the final walking distance matters
- D. Place the patient supine and immediately begin chest percussion

**16.** In an outpatient-to-acute-care transition, an adult patient with asthma has worsening wheeze after taking a nonselective beta blocker. Which explanation is most likely?

- A. Beta-2 receptor blockade can provoke bronchoconstriction and blunt rescue therapy
- B. The drug directly increases surfactant production and airway diameter
- C. The medication causes isolated diffusion impairment without bronchospasm
- D. The finding proves bacterial pneumonia rather than medication effect

**17.** After the therapist identifies a new respiratory concern, an adult patient with emphysema needs instruction in pursed-lip breathing. What is the main therapeutic goal?

- A. Prolong exhalation and reduce dynamic airway collapse
- B. Increase inspiratory flow to shorten all phases of breathing
- C. Create high intrathoracic pressure during forced inspiration
- D. Replace prescribed oxygen during episodes of severe hypoxemia

**18.** During bedside rounds with the critical-care team, an adult with established COPD with chronic hypercapnia has SpO<sub>2</sub> 84% on room air. Which oxygen strategy is safest initially?

- A. Withhold oxygen because any increase will eliminate respiratory drive
- B. Begin controlled low-flow oxygen and titrate to an appropriate target
- C. Apply maximal oxygen indefinitely without monitoring gas exchange
- D. Use heliox as a substitute for oxygen in severe hypoxemia

**19.** When objective monitoring shows a meaningful clinical change, an adult with asthma receiving continuous albuterol develops tremor, tachycardia, and falling serum potassium. Which response is appropriate?

- A. Increase the albuterol dose because hypokalemia indicates undertreatment
- B. Add a second continuous beta agonist without cardiac monitoring
- C. Discontinue monitoring because these findings are unrelated to therapy
- D. Reassess treatment intensity and notify the provider of systemic toxicity

**20.** As part of an advanced respiratory-care simulation, an adult patient with COPD has increasing dyspnea, unilateral absent breath sounds, and sudden pleuritic pain. Which diagnostic study should be obtained urgently?

- A. Schedule routine overnight oximetry for suspected sleep apnea
- B. Perform a slow vital capacity test before any imaging
- C. Obtain immediate chest imaging to evaluate for pneumothorax
- D. Order only a sputum Gram stain for bacterial infection

**21.** In an outpatient-to-acute-care transition, a ventilated asthma patient has severe airflow obstruction. Which initial strategy best limits dynamic hyperinflation?

- A. Use a high rate, long inspiratory time, and large tidal volume
- B. Eliminate expiratory time by adding a prolonged inspiratory pause
- C. Use a lower rate, high inspiratory flow, and adequate expiratory time
- D. Target normal PaCO<sub>2</sub> immediately regardless of airway pressures

**22.** After the therapist identifies a new respiratory concern, an adult patient with COPD asks why pulmonary rehabilitation is recommended. Which benefit should the therapist emphasize?

- A. It permanently reverses emphysematous destruction of alveolar walls
- B. It improves exercise tolerance, symptom control, and self-management
- C. It eliminates the need for all maintenance inhaled medications
- D. It guarantees normal spirometry after a short training program

**23.** During bedside rounds with the critical-care team, an adult patient using a metered-dose inhaler actuates the device after completing inspiration. Which correction is most important?

- A. Begin a slow deep inhalation while actuating the canister once
- B. Inhale rapidly before actuation and exhale immediately afterward
- C. Spray several doses into the mouth before beginning to breathe
- D. Breathe normally through the nose while actuating the inhaler

**24.** When objective monitoring shows a meaningful clinical change, an adult patient with COPD and copious secretions becomes acutely dyspneic after eating. Breath sounds are markedly diminished on the right. What focused assessment is needed most urgently?

- A. Perform elective full pulmonary function testing immediately
- B. Begin long-term smoking cessation counseling before examination
- C. Measure overnight apnea-hypopnea index as the first action
- D. Evaluate airway patency and possible aspiration or mucus obstruction

**25.** As part of an advanced respiratory-care simulation, an adult patient with asthma improves after treatment. Which finding best demonstrates reduced airflow obstruction?

- A. Falling peak flow with increasing pulsus paradoxus
- B. Rising peak expiratory flow with less accessory-muscle use
- C. Increasing PaCO<sub>2</sub> with worsening drowsiness and fatigue
- D. Development of a silent chest despite less audible wheezing

**26.** In an outpatient-to-acute-care transition, an adult with established COPD with an artificial airway has dry, tenacious secretions. Which intervention most directly addresses this problem?

- A. Verify and optimize heated humidification of inspired gas
- B. Lower the humidifier temperature and discontinue water delivery
- C. Increase cuff pressure to prevent moisture reaching the trachea
- D. Replace humidification with routine sedative administration

**27.** After the therapist identifies a new respiratory concern, during an asthma exacerbation, PaCO<sub>2</sub> rises from 34 to 45 mm Hg while distress worsens. How should this trend be interpreted?

- A. Expected improvement because normal PaCO<sub>2</sub> proves adequate ventilation
- B. Isolated metabolic alkalosis unrelated to the respiratory condition
- C. Possible respiratory muscle fatigue and impending ventilatory failure
- D. Evidence that bronchodilator therapy has completely resolved obstruction

**28.** During bedside rounds with the critical-care team, an adult with established COPD is being evaluated for ventilator liberation. Which combination most supports a spontaneous breathing trial?

- A. Escalating vasopressor needs, severe hypoxemia, and deep sedation
- B. Untreated pneumothorax with rapidly increasing airway pressures
- C. Absent respiratory drive while receiving continuous paralysis
- D. Hemodynamic stability, adequate oxygenation, and ability to initiate breaths

**29.** When objective monitoring shows a meaningful clinical change, an adult patient with chronic bronchitis is prescribed an airway-clearance device. Which finding best indicates the therapy is effective?

- A. Greater sputum expectoration with improved breath sounds and dyspnea
- B. New hemoptysis with worsening oxygenation after every treatment

- C. Increasing fatigue with declining expiratory flow and consciousness
- D. No secretion movement despite correct technique and adequate effort

**30.** As part of an advanced respiratory-care simulation, an adult with asthma has inspiratory stridor rather than expiratory wheeze. What should the therapist suspect first?

- A. Diffuse lower-airway bronchospasm responsive only to albuterol
- B. Chronic emphysema with irreversible small-airway collapse
- C. Pleural effusion producing bilateral upper-airway narrowing
- D. Upper-airway obstruction requiring prompt airway evaluation

**31.** In an outpatient-to-acute-care transition, an adult with established COPD on volume ventilation has increasing peak pressure but unchanged plateau pressure. What should be checked first?

- A. Pulmonary edema as the only possible cause of the pressure change
- B. Airway secretions, tube patency, circuit kinking, and bronchospasm
- C. Tidal volume measurement because resistance cannot affect peak pressure
- D. Pleural fluid because plateau pressure must remain normal in stiffness

**32.** After the therapist identifies a new respiratory concern, an adult patient with asthma asks how to monitor control at home. Which plan is most appropriate?

- A. Rely only on yearly chest radiographs to detect every exacerbation
- B. Take antibiotics whenever peak flow falls slightly below personal best
- C. Use symptoms and peak-flow zones within a written action plan
- D. Stop controller therapy whenever the green zone is reached

**33.** During bedside rounds with the critical-care team, an adult with established COPD has chronic exertional dyspnea but normal resting SpO<sub>2</sub>. Which assessment best evaluates oxygen need during activity?

- A. Supervised exertional oximetry such as a six-minute walk test
- B. A single resting blood pressure measurement without exercise
- C. Routine bronchoscopy performed before any functional testing
- D. Sputum cytology as the primary measure of exertional oxygenation

**34.** When objective monitoring shows a meaningful clinical change, an adult patient with asthma has poor response to an inhaled bronchodilator. Inspection shows an empty canister. Which action is most defensible?

- A. Diagnose refractory asthma before checking medication availability
- B. Replace the inhaler and review dose tracking and technique
- C. Continue actuating the empty device until symptoms improve
- D. Add oxygen as a substitute for the missing bronchodilator dose

**35.** As part of an advanced respiratory-care simulation, an adult with established COPD with bullous disease suddenly deteriorates after aggressive manual ventilation. Which complication is most concerning?

- A. Improved collateral ventilation eliminating air trapping
- B. Resolution of bullae from positive-pressure ventilation
- C. Isolated upper-airway edema without pressure-related injury
- D. Barotrauma producing a pneumothorax

**36.** In an outpatient-to-acute-care transition, after blunt chest trauma, a patient has severe dyspnea, hypotension, distended neck veins, and absent left breath sounds. What should be recommended immediately?

- A. Routine spirometry to quantify the restrictive ventilatory defect
- B. Incentive spirometry followed by discharge if pain improves
- C. Emergency decompression for suspected tension pneumothorax
- D. Aerosolized bronchodilator as the definitive treatment

**37.** After the therapist identifies a new respiratory concern, a trauma patient has paradoxical chest-wall motion, hypoxemia, and severe pain. Which initial respiratory approach is most appropriate?

- A. Bind the chest tightly to eliminate all outward chest movement
- B. Provide oxygen, analgesia support, and ventilatory assistance as needed
- C. Delay oxygen until arterial blood gas results are available
- D. Use forceful chest percussion over the unstable segment

**38.** During bedside rounds with the critical-care team, following trauma, bubbling suddenly stops in a chest drainage system while the patient becomes dyspneic. Which action should receive immediate priority?

- A. Clamp the chest tube near the patient and leave it clamped
- B. Increase suction to the maximum setting without inspection
- C. Inspect the tubing for kinks, dependent loops, or obstruction
- D. Remove the tube immediately without notifying the provider

**39.** When objective monitoring shows a meaningful clinical change, a facial-trauma patient has gurgling respirations, blood in the mouth, and declining consciousness. Which step belongs first in the care sequence?

- A. Suction the airway and prepare for definitive airway management
- B. Obtain a complete smoking history before touching the airway
- C. Apply a nasal airway despite possible midface or basilar injury
- D. Begin incentive spirometry to prevent postoperative atelectasis

**40.** As part of an advanced respiratory-care simulation, a burn patient initially has normal oxygen saturation but soot around the mouth, hoarseness, and progressive stridor. Which response should be selected?

- A. Wait for severe desaturation because pulse oximetry excludes injury
- B. Begin routine chest physiotherapy as definitive airway treatment

- C. Give oral fluids and reassess the voice several hours later
- D. Recommend early intubation before upper-airway edema progresses

**41.** In an outpatient-to-acute-care transition, an adult patient with acute cardiogenic pulmonary edema has severe dyspnea, diffuse crackles, and adequate blood pressure. Which respiratory intervention is most appropriate?

- A. Begin postural drainage to remove fluid from the alveoli
- B. Apply CPAP or bilevel positive pressure with supplemental oxygen
- C. Administer a mucolytic to dissolve pulmonary edema fluid
- D. Withhold positive pressure because it always worsens cardiac function

**42.** After the therapist identifies a new respiratory concern, an adult patient develops sudden dyspnea, pleuritic pain, tachycardia, and unexplained hypoxemia after surgery. Which diagnostic study should be recommended?

- A. Prompt evaluation for pulmonary embolism with appropriate imaging
- B. Routine methacholine challenge for exercise-induced asthma
- C. A sleep study as the first assessment of acute hypoxemia
- D. Sputum induction to diagnose bacterial bronchitis

**43.** During bedside rounds with the critical-care team, an adult patient with heart failure receives CPAP. Which change most strongly indicates benefit?

- A. Worsening hypotension with increasing confusion and cool extremities
- B. Increasing crackles with falling saturation despite maximal support
- C. Reduced respiratory effort with improved oxygenation and blood pressure stability
- D. New inability to protect the airway with repeated vomiting

**44.** When objective monitoring shows a meaningful clinical change, a pulmonary artery catheter shows elevated pulmonary capillary wedge pressure in a patient with bilateral crackles. What is the most likely mechanism?

- A. Primary bronchospasm causing isolated elevation of airway resistance
- B. Low-pressure permeability edema with normal cardiac filling pressure
- C. Upper-airway obstruction causing negative intravascular volume
- D. Hydrostatic pulmonary edema from left-sided cardiac dysfunction

**45.** As part of an advanced respiratory-care simulation, an adult patient with myocardial ischemia develops hypoxemia and increased work of breathing. Which oxygen approach is appropriate?

- A. Give maximal oxygen indefinitely regardless of saturation
- B. Titrate supplemental oxygen to correct documented hypoxemia
- C. Withhold oxygen even when saturation remains dangerously low
- D. Use heliox because it treats coronary artery obstruction directly

**46.** In an outpatient-to-acute-care transition, an adult patient with pulmonary hypertension becomes severely hypoxemic after interruption of inhaled nitric oxide. Which step belongs first in the care sequence?

- A. Permanently discontinue all pulmonary vasodilator therapy
- B. Substitute room air because nitric oxide commonly causes hypoxemia
- C. Perform chest percussion before restoring specialty gas delivery
- D. Restore the prescribed therapy and assess for rebound pulmonary hypertension

**47.** After the therapist identifies a new respiratory concern, an adult patient with acute pulmonary edema is on NPPV but becomes hypotensive and obtunded. What should the therapist recommend?

- A. Increase mask pressure indefinitely without evaluating circulation
- B. Continue unchanged because mental status does not affect NPPV safety
- C. Discontinue reliance on NPPV and prepare for invasive airway support
- D. Remove all ventilatory support and schedule outpatient follow-up

**48.** During bedside rounds with the critical-care team, an adult patient has an irregularly irregular tachycardia and acute dyspnea. Which bedside procedure should be obtained promptly?

- A. Acquire a 12-lead ECG while assessing oxygenation and stability
- B. Perform a methacholine challenge during the active arrhythmia
- C. Delay rhythm evaluation until outpatient spirometry is complete
- D. Begin postural drainage as the primary cardiac diagnostic test

**49.** When objective monitoring shows a meaningful clinical change, an adult patient with massive pulmonary embolism has hypotension and escalating oxygen requirements. Which finding makes this high risk?

- A. Hemodynamic instability indicating obstructive circulatory compromise
- B. Normal blood pressure with resolving symptoms during observation
- C. Stable oxygenation on room air without respiratory distress
- D. An isolated chronic cough without acute cardiopulmonary change

**50.** As part of an advanced respiratory-care simulation, an adult patient with cardiogenic pulmonary edema improves after diuresis and CPAP. Which finding supports weaning CPAP?

- A. Persistent severe distress and inability to tolerate any pressure reduction
- B. Progressive hypercapnia with worsening alertness and weak effort
- C. Stable oxygenation with reduced work of breathing on lower support
- D. Falling blood pressure and recurrent frothy secretions during trials

**51.** In an outpatient-to-acute-care transition, an adult patient with Guillain-Barré syndrome has declining vital capacity and maximal inspiratory pressure with weak cough. Which step belongs first in the care sequence?

- A. Wait for profound hypoxemia because mechanics do not predict failure
- B. Use a bronchodilator as the sole treatment for muscle weakness
- C. Begin a methacholine challenge to confirm airway hyperreactivity

D. Prepare for ventilatory support before overt respiratory arrest

**52.** After the therapist identifies a new respiratory concern, an adult patient with myasthenia gravis has shallow breathing, weak voice, and difficulty handling secretions. Which assessment is most useful for trending respiratory weakness?

- A. A single diffusion-capacity test after full clinical recovery
- B. Serial vital capacity and maximal inspiratory pressure measurements
- C. Routine peak flow alone without evaluating inspiratory strength
- D. Chest circumference as the primary measure of ventilation

**53.** During bedside rounds with the critical-care team, an adult patient with a high spinal cord injury has absent cough and recurrent mucus plugging. Which therapy best supports secretion clearance?

- A. Sedation to suppress coughing and reduce secretion movement
- B. Fluid restriction with removal of all airway humidification
- C. Continuous high oxygen concentration without airway clearance
- D. Mechanical insufflation-exsufflation with assisted coughing

**54.** When objective monitoring shows a meaningful clinical change, a stroke patient coughs and desaturates during oral feeding. What should the therapist recommend to the care team?

- A. Continue feeding rapidly to complete nutrition before reassessment
- B. Begin incentive spirometry while the patient continues swallowing
- C. Stop feeding and request a formal swallowing and aspiration evaluation
- D. Increase oxygen and ignore the recurrent cough during meals

**55.** As part of an advanced respiratory-care simulation, a sedated patient has slow shallow respirations after opioid administration. Which immediate actions are appropriate?

- A. Administer additional opioid to normalize the respiratory rate

- B. Support ventilation and recommend opioid reversal when indicated
- C. Perform elective spirometry before providing ventilatory assistance
- D. Use a dry-powder bronchodilator as the only intervention

**56.** In an outpatient-to-acute-care transition, a septic patient has bilateral infiltrates, severe hypoxemia, and no evidence of left atrial hypertension. Which ventilator strategy is preferred?

- A. Use lung-protective tidal volume based on predicted body weight
- B. Use very large tidal volumes to normalize PaCO<sub>2</sub> immediately
- C. Base tidal volume on actual body weight in an edematous patient
- D. Avoid monitoring plateau pressure during volume ventilation

**57.** After the therapist identifies a new respiratory concern, a ventilated patient with ARDS has a plateau pressure of 34 cm H<sub>2</sub>O. Which action should be considered?

- A. Reduce tidal volume while maintaining lung-protective ventilation goals
- B. Increase tidal volume until carbon dioxide reaches a normal value
- C. Ignore plateau pressure because peak pressure is the only concern
- D. Eliminate PEEP regardless of the patient's oxygenation response

**58.** During bedside rounds with the critical-care team, a postoperative patient has low-grade hypoxemia, bibasilar crackles, shallow breathing, and pain-limited inspiration. Which intervention is most appropriate?

- A. Begin long-term noninvasive ventilation without reassessing pain
- B. Restrict mobility and maintain continuous supine positioning
- C. Provide analgesia support, mobilization, deep breathing, and lung expansion
- D. Administer antibiotics solely because atelectasis is always infectious

**59.** When objective monitoring shows a meaningful clinical change, an adult patient with pneumonia has copious purulent secretions and worsening oxygenation. Which diagnostic information is most useful before narrowing antimicrobial therapy?

- A. Perform routine methacholine challenge during acute respiratory distress
- B. Obtain an appropriate respiratory specimen for culture and sensitivity
- C. Measure only peak expiratory flow and omit microbiologic testing
- D. Schedule an outpatient sleep study before treating infection

**60.** As part of an advanced respiratory-care simulation, an intubated patient suddenly desaturates. Peak pressure rises, breath sounds are absent on the right, and the tube marking has changed. What should be suspected?

- A. Isolated metabolic acidosis without an airway complication
- B. Pulmonary embolism proven solely by the tube depth marking
- C. Normal tube position requiring no immediate intervention
- D. Right mainstem intubation from excessive tube advancement

**61.** In an outpatient-to-acute-care transition, a ventilated patient triggers a high-pressure alarm. A suction catheter cannot pass through the endotracheal tube. Which clinical response is indicated?

- A. Silence the alarm permanently and continue unchanged ventilation
- B. Increase the high-pressure limit without assessing tube patency
- C. Treat the tube as obstructed and prepare for urgent replacement
- D. Decrease oxygen concentration while waiting for routine rounds

**62.** After the therapist identifies a new respiratory concern, an adult patient with ARDS remains severely hypoxemic despite appropriate lung-protective ventilation and PEEP. Which adjunct may improve oxygenation?

- A. Place the patient in the prone position with a trained team
- B. Increase tidal volume substantially above protective targets
- C. Remove all PEEP to minimize mean airway pressure
- D. Begin routine chest percussion over every dependent region

**63.** During bedside rounds with the critical-care team, an adult patient has fever, productive cough, focal crackles, and a new lobar infiltrate. Which diagnosis is most consistent?

- A. Isolated obstructive sleep apnea without lower-airway disease
- B. Community-acquired pneumonia with focal consolidation
- C. Stable emphysema without an acute infectious process
- D. Tension pneumothorax causing diffuse bilateral infiltrates

**64.** When objective monitoring shows a meaningful clinical change, an immunocompromised patient develops diffuse infiltrates and escalating oxygen needs. Which approach is most appropriate?

- A. Delay all diagnostic testing until the patient becomes asymptomatic
- B. Assume bacterial infection and ignore opportunistic pathogens
- C. Perform only outpatient spirometry despite acute deterioration
- D. Promptly obtain targeted diagnostic studies while supporting oxygenation

**65.** As part of an advanced respiratory-care simulation, an adult patient with septic shock is tachypneic with metabolic acidosis. Why should the therapist avoid suppressing ventilation without support?

- A. Tachypnea always indicates primary respiratory alkalosis requiring sedation
- B. Reducing ventilation will reliably correct the underlying lactic acidosis
- C. The high minute ventilation may be compensating for metabolic acidemia
- D. Compensatory breathing has no effect on arterial pH during shock

**66.** In an outpatient-to-acute-care transition, an adult patient receiving mechanical ventilation has new fever, purulent secretions, and a new infiltrate. Which action supports evaluation for ventilator-associated pneumonia?

- A. Replace the ventilator solely because infection cannot occur in the patient
- B. Discontinue humidification to prevent all future respiratory infections
- C. Perform a methacholine challenge to diagnose airway hyperresponsiveness
- D. Obtain an appropriate lower-respiratory specimen before targeted antibiotics when feasible

**67.** After the therapist identifies a new respiratory concern, a tracheostomy patient suddenly has respiratory distress and no airflow through the tube. What is the first action?

- A. Remove the inner cannula and assess for obstruction while oxygenating
- B. Increase cuff pressure without checking the tube lumen
- C. Begin oral feeding to stimulate cough and clear the airway
- D. Wait for radiography before taking any airway action

**68.** During bedside rounds with the critical-care team, an adult patient with cystic fibrosis has increased sputum, declining spirometry, and fever. Which treatment plan is most appropriate?

- A. Stop airway clearance because it spreads infection within the lungs
- B. Increase airway clearance and obtain cultures to guide antimicrobial therapy
- C. Use oxygen alone as definitive treatment for the exacerbation
- D. Discontinue hydration and mucolytic therapy during thick secretions

**69.** When objective monitoring shows a meaningful clinical change, a ventilated patient has PaO<sub>2</sub> 60 mm Hg on FiO<sub>2</sub> 0.80. What is the P/F ratio?

- A. 48 mm Hg
- B. 133 mm Hg
- C. 480 mm Hg
- D. 75 mm Hg

**70.** As part of an advanced respiratory-care simulation, an adult patient has pH 7.30, PaCO<sub>2</sub> 30 mm Hg, and HCO<sub>3</sub><sup>-</sup> 15 mEq/L. Which interpretation is best?

- A. Primary respiratory acidosis with renal overcompensation
- B. Primary metabolic acidosis with respiratory compensation
- C. Primary metabolic alkalosis with respiratory compensation

D. Normal acid-base status without a primary disturbance

71. In an outpatient-to-acute-care transition, during a spontaneous breathing trial, a patient becomes diaphoretic, tachypneic, and tachycardic with falling saturation. Which clinical response is indicated?

- A. Terminate the trial and return to prior support while identifying the cause
- B. Continue the trial until severe hypotension or cardiac arrest occurs
- C. Extubate immediately because distress demonstrates adequate respiratory drive
- D. Remove all oxygen to determine whether desaturation is clinically important

72. After the therapist identifies a new respiratory concern, an adult patient receiving tube feeding develops sudden cough, hypoxemia, and new coarse crackles. What should the therapist suspect?

- A. Improved airway clearance from normal feeding tolerance
- B. Isolated upper-airway dryness without pulmonary involvement
- C. Aspiration of enteral feeding into the lower respiratory tract
- D. Resolution of pneumonia caused by increased gastric volume

73. During bedside rounds with the critical-care team, an adult patient with a pleural effusion has dyspnea and markedly diminished basilar breath sounds. Which procedure may be both diagnostic and therapeutic?

- A. Methacholine challenge performed during severe resting dyspnea
- B. Thoracentesis performed with appropriate imaging and monitoring
- C. Routine bronchodilator administration as definitive fluid removal
- D. Incentive spirometry to aspirate fluid from the pleural space

74. When objective monitoring shows a meaningful clinical change, an adult patient with carbon monoxide exposure has headache and confusion despite a normal pulse oximeter reading. Which test is required?

- A. Rely on standard pulse oximetry to exclude poisoning
- B. Perform peak-flow testing as the definitive diagnostic study
- C. Measure carboxyhemoglobin using CO-oximetry
- D. Measure only serum bicarbonate and ignore hemoglobin species

75. As part of an advanced respiratory-care simulation, an adult patient with suspected methemoglobinemia has cyanosis and saturation near 85% that changes little with oxygen. Which assessment is most appropriate?

- A. Obtain CO-oximetry to measure methemoglobin directly
- B. Diagnose asthma solely from the fixed saturation reading
- C. Perform a six-minute walk before evaluating dyshemoglobinemia
- D. Use capnography as the only measurement of hemoglobin saturation

76. In an outpatient-to-acute-care transition, an adult patient with severe obesity develops postoperative hypoventilation after sedatives. Which intervention is the immediate priority?

- A. Encourage unsupported ambulation despite declining consciousness
- B. Give additional sedative medication to reduce respiratory effort
- C. Delay assessment until routine morning pulmonary function testing
- D. Support ventilation and evaluate for medication-related respiratory depression

77. After the therapist identifies a new respiratory concern, an adult patient on volume ventilation has tidal volume 500 mL, plateau pressure 25 cm H<sub>2</sub>O, and total PEEP 10 cm H<sub>2</sub>O. What is static compliance?

- A. 20 mL/cm H<sub>2</sub>O
- B. 33 mL/cm H<sub>2</sub>O
- C. 50 mL/cm H<sub>2</sub>O
- D. 75 mL/cm H<sub>2</sub>O

**78.** During bedside rounds with the critical-care team, an intubated patient has a persistent cuff leak and cannot maintain tidal volume. What should be assessed first?

- A. Increase ventilator volume indefinitely without checking the airway
- B. Pack the mouth tightly with gauze as definitive cuff repair
- C. Cuff pressure, pilot balloon integrity, tube position, and cuff failure
- D. Ignore the leak if oxygen saturation is temporarily acceptable

**79.** When objective monitoring shows a meaningful clinical change, an adult patient has sudden severe hypoxemia after central-line placement with absent breath sounds on one side. Which step belongs first in the care sequence?

- A. Schedule outpatient pulmonary rehabilitation before imaging
- B. Begin a sleep study while continuing the line procedure
- C. Assume atelectasis and delay assessment until the next day
- D. Evaluate immediately for an iatrogenic pneumothorax

**80.** As part of an advanced respiratory-care simulation, an adult patient recovering from anesthesia has upper-airway obstruction with snoring and paradoxical chest movement. What is the first intervention?

- A. Reposition the airway and apply a jaw thrust with oxygen support
- B. Administer oral medication while the airway remains obstructed
- C. Begin chest percussion to eliminate the upper-airway blockage
- D. Delay intervention until an arterial blood gas is obtained

**81.** In an outpatient-to-acute-care transition, a pediatric patient with acute asthma has severe retractions, minimal air movement, and declining alertness. Which option represents the best immediate management?

- A. Send the child home with instructions to use medication as needed
- B. Perform elective pulmonary function testing before treating distress
- C. Begin routine chest percussion as the sole asthma intervention

D. Prepare for advanced airway support while continuing urgent bronchodilator therapy

**82.** After the therapist identifies a new respiratory concern, an infant with bronchiolitis has copious nasal secretions, moderate retractions, and poor feeding. Which initial respiratory intervention is most appropriate?

- A. Administer routine antibiotics because bronchiolitis is always bacterial
- B. Provide gentle nasal suction, oxygen as indicated, and supportive monitoring
- C. Begin forceful deep suctioning at fixed hourly intervals regardless of need
- D. Use an inhaled corticosteroid as guaranteed definitive treatment

**83.** During bedside rounds with the critical-care team, a pediatric patient with croup has stridor at rest and marked retractions. Which treatment is indicated?

- A. Administer nebulized epinephrine and systemic corticosteroid therapy
- B. Perform chest percussion to remove lower-airway secretions
- C. Give a mucolytic because croup is caused by thick bronchial mucus
- D. Delay treatment until complete spirometry can be performed

**84.** When objective monitoring shows a meaningful clinical change, a pediatric patient with epiglottitis is sitting forward, drooling, and has inspiratory stridor. What should the therapist avoid?

- A. Preparing controlled airway management with an experienced team
- B. Providing calm oxygen support while minimizing distress
- C. Agitating the child with an unplanned throat examination
- D. Keeping emergency airway equipment immediately available

**85.** As part of an advanced respiratory-care simulation, a pediatric patient on mechanical ventilation suddenly desaturates. The endotracheal tube is at a shallower depth than documented. What should be suspected?

- A. Partial extubation or tube displacement
- B. Stable tube position with isolated metabolic acidosis
- C. Normal variation requiring no airway assessment
- D. Improved lung compliance causing tube migration outward

**86.** In an outpatient-to-acute-care transition, a pediatric patient with asthma has a personal-best peak flow of 300 L/min and currently measures 180 L/min. Which zone is this?

- A. Green zone indicating at least 80% of personal best
- B. Red zone because every value below personal best is under 50%
- C. Yellow zone requiring action according to the asthma plan
- D. Normal zone that never requires medication adjustment

**87.** After the therapist identifies a new respiratory concern, a pediatric patient with pneumonia has increasing oxygen need and lethargy. What is the best next step?

- A. Continue routine care because lethargy is expected during recovery
- B. Delay reassessment until the next scheduled outpatient appointment
- C. Stop oxygen to determine whether the child can compensate independently
- D. Escalate respiratory assessment and support while notifying the care team

**88.** During bedside rounds with the critical-care team, a pediatric patient with a tracheostomy has sudden distress, and suction cannot pass through the tube. Which step belongs first in the care sequence?

- A. Increase cuff pressure and wait for the obstruction to dissolve
- B. Remove and replace the obstructed tracheostomy tube per emergency protocol
- C. Administer oral fluids through the mouth to thin secretions
- D. Perform spirometry before changing the artificial airway

**89.** When objective monitoring shows a meaningful clinical change, an infant with congenital heart disease has abrupt cyanosis during crying. Which initial action may help during a hypercyanotic spell?

- A. Encourage prolonged crying to increase pulmonary blood flow
- B. Place the infant flat with legs fully extended and withhold oxygen
- C. Calm the infant, provide oxygen, and use knee-chest positioning
- D. Begin forceful chest percussion over the precordium

**90.** As part of an advanced respiratory-care simulation, a pediatric patient receiving albuterol develops significant tremor and tachycardia. What should the therapist do?

- A. Double every subsequent dose because systemic effects prove effectiveness
- B. Reassess severity, dose, delivery, and treatment response before continuing
- C. Stop all monitoring because these are unrelated to beta agonists
- D. Replace bronchodilator therapy with routine chest percussion

**91.** In an outpatient-to-acute-care transition, a preterm newborn has grunting, retractions, diffuse ground-glass opacities, and increasing oxygen need. Which condition is most likely?

- A. Neonatal respiratory distress syndrome from surfactant deficiency
- B. Transient upper-airway obstruction caused only by nasal secretions
- C. Meconium aspiration in a clear-fluid preterm delivery by definition
- D. Isolated congenital heart disease without pulmonary involvement

**92.** After the therapist identifies a new respiratory concern, a newly delivered infant remains apneic after initial warming, positioning, drying, stimulation, and airway assessment. Heart rate is 80/min. Which step belongs first in the care sequence?

- A. Start chest compressions before providing ventilation
- B. Observe without intervention because the heart rate exceeds 60/min
- C. Administer routine aerosolized bronchodilator treatment
- D. Begin effective positive-pressure ventilation

**93.** During bedside rounds with the critical-care team, during neonatal positive-pressure ventilation, the heart rate remains 70/min and the chest is not moving. What should be completed before the remaining choices?

- A. Begin chest compressions despite ineffective ventilation
- B. Increase oxygen alone without correcting mask seal or airway position
- C. Perform ventilation corrective steps to achieve visible chest movement
- D. Stop ventilation and wait for spontaneous respiratory recovery

**94.** When objective monitoring shows a meaningful clinical change, after effective ventilation, a newborn's heart rate remains 50/min. What intervention is indicated?

- A. Begin coordinated chest compressions with ventilation and appropriate oxygen
- B. Continue stimulation alone because ventilation has already been attempted
- C. Perform postural drainage before starting circulatory support
- D. Stop positive-pressure ventilation while compressions are delivered

**95.** As part of an advanced respiratory-care simulation, a premature neonate on CPAP has worsening oxygen need, recurrent apnea, and rising PaCO<sub>2</sub>. What is the best response?

- A. Reduce monitoring because apnea is expected and never clinically important
- B. Discontinue all distending pressure despite worsening gas exchange
- C. Begin oral feeding to stimulate spontaneous ventilation
- D. Escalate ventilatory support and evaluate for surfactant and other causes

**96.** In an outpatient-to-acute-care transition, a newly delivered infant delivered through meconium-stained fluid is vigorous with good tone and respirations. Which approach is appropriate?

- A. Perform routine tracheal suctioning despite vigorous status
- B. Provide routine initial care and ongoing clinical observation
- C. Begin chest compressions before assessing the heart rate
- D. Administer surfactant solely because meconium is present

**97.** After the therapist identifies a new respiratory concern, a newly delivered infant has preductal SpO<sub>2</sub> persistently higher than postductal SpO<sub>2</sub> with severe hypoxemia. What condition should be considered?

- A. Isolated upper-airway dryness without circulatory involvement
- B. Persistent pulmonary hypertension with right-to-left ductal shunting
- C. Normal transitional circulation requiring no further evaluation
- D. Simple nasal congestion as the sole cause of differential saturation

**98.** During bedside rounds with the critical-care team, a ventilated preterm infant suddenly deteriorates with asymmetric chest movement and decreased breath sounds on one side. Which step belongs first in the care sequence?

- A. Evaluate immediately for pneumothorax and prepare for decompression
- B. Increase feeding volume and reassess after the next scheduled meal
- C. Perform elective pulmonary function testing before chest evaluation
- D. Assume normal ventilator adaptation without changing management

**99.** When objective monitoring shows a meaningful clinical change, a premature neonate receiving oxygen requires ongoing adjustment. What principle should guide therapy?

- A. Use 100% oxygen continuously regardless of measured saturation
- B. Withhold oxygen during documented severe hypoxemia
- C. Use blended oxygen and titrate to the prescribed saturation target
- D. Estimate oxygen need only from skin color without monitoring

**100.** As part of an advanced respiratory-care simulation, a newly delivered infant on nasal CPAP has increasing work of breathing because the prongs are displaced and a large leak is present. Which clinical response is indicated?

- A. Increase set pressure without correcting the displaced interface

- B. Remove monitoring because a large leak improves pressure delivery
- C. Begin chest compressions solely because the CPAP seal is poor
- D. Reposition the interface and reassess seal, pressure delivery, and response

## Practice Exam 4: Answer Key and Explanations

1. **B** — A silent chest with declining consciousness indicates critically reduced airflow and impending respiratory arrest, so definitive airway control cannot be delayed. This makes prepare for immediate endotracheal intubation and mechanical ventilation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.
2. **A** — Acute hypercapnic acidosis with preserved cooperation is a classic indication for bilevel noninvasive ventilation and close reassessment. This makes initiate bilevel noninvasive positive-pressure ventilation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.
3. **C** — The waveform and hemodynamic change indicate severe dynamic hyperinflation; allowing exhalation promptly reduces trapped gas and intrathoracic pressure. This makes disconnect briefly and allow complete exhalation before ventilator adjustment the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.
4. **D** — Objective resting oxygenation measurement and titration establish the severity of hypoxemia and the flow needed to correct it safely. This makes document arterial oxygenation at rest and titrate oxygen to response the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.
5. **A** — Frequent rescue use and nocturnal symptoms indicate poor control and airway inflammation requiring controller therapy rather than reliance on short-acting relief. This makes add or intensify inhaled corticosteroid-containing controller therapy the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.
6. **D** — The immediate problem is acute ventilatory failure with acidemia plus hypoxemia; ventilatory support and controlled oxygen address both threats. This makes support ventilation with bilevel nppv while carefully titrating oxygen the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**7. B** — Marked tachycardia with chest pain is a potentially serious adverse response requiring treatment termination, assessment, and prompt communication. This makes stop the treatment, assess the patient, and notify the provider the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**8. C** — Findings indicate retained mobile secretions, so cough optimization, hydration, and appropriate clearance techniques target the underlying problem. This makes provide directed cough training with hydration and airway-clearance assistance the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**9. B** — A large peak-to-plateau gradient localizes the pressure increase to resistive airways, consistent with bronchospasm or tube obstruction. This makes increased airway resistance rather than reduced lung compliance the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**10. A** — The current value is 46% of personal best, placing it below 50% in the red zone and indicating severe obstruction. This makes red-zone airflow limitation requiring urgent action the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**11. C** — Reducing frequency lengthens the total cycle and allows more time for exhalation, helping limit dynamic hyperinflation. This makes reduce the respiratory rate while maintaining appropriate minute ventilation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**12. D** — Improving ventilation, work of breathing, and alertness show effective noninvasive support; deterioration would favor intubation. This makes decreasing respiratory rate with improving pH and mental status the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**13. D** — Local steroid deposition can cause dysphonia and candidiasis; proper delivery technique and mouth rinsing reduce exposure. This makes use a spacer when appropriate and rinse the mouth after each dose the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**14. C** — A reduced ratio identifies airflow obstruction, while meaningful post-bronchodilator improvement demonstrates reversible airflow limitation. This makes obstructive ventilatory defect with bronchodilator responsiveness the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**15. B** — Severe desaturation with symptoms requires safety intervention, clinical assessment, and oxygen titration rather than continued exertion. This makes stop or pause the test, ensure safety, and

provide indicated oxygen the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**16. A** — Nonselective beta blockade can constrict airways and reduce the effectiveness of beta-agonist bronchodilators in susceptible patients. This makes beta-2 receptor blockade can provoke bronchoconstriction and blunt rescue therapy the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**17. A** — Pursed-lip breathing creates mild expiratory back-pressure and slows exhalation, which helps splint collapsible airways open. This makes prolong exhalation and reduce dynamic airway collapse the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**18. B** — Clinically important hypoxemia requires oxygen; controlled titration and reassessment reduce the risk of excessive oxygen while correcting danger. This makes begin controlled low-flow oxygen and titrate to an appropriate target the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**19. D** — High-dose beta agonists can cause systemic effects including tachycardia and intracellular potassium shift, requiring reassessment. This makes reassess treatment intensity and notify the provider of systemic toxicity the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**20. C** — Sudden unilateral findings and pleuritic pain suggest pneumothorax, which needs rapid imaging and potential pleural intervention. This makes obtain immediate chest imaging to evaluate for pneumothorax the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**21. C** — Permissive hypercapnia with longer expiration reduces breath stacking and pressure injury while obstruction is treated. This makes use a lower rate, high inspiratory flow, and adequate expiratory time the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**22. B** — Pulmonary rehabilitation improves functional status and coping through exercise, education, and behavior change without reversing structural lung damage. This makes it improves exercise tolerance, symptom control, and self-management the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**23. A** — Coordinating actuation with a slow deep breath improves lower-airway deposition and reduces medication loss. This makes begin a slow deep inhalation while actuating the canister once the most

appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**24. D** — The acute unilateral change after eating raises concern for aspiration or obstruction, so airway assessment comes before nonurgent testing. This makes evaluate airway patency and possible aspiration or mucus obstruction the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**25. B** — Objective flow improvement paired with reduced effort indicates response; quiet breath sounds with fatigue can signal deterioration. This makes rising peak expiratory flow with less accessory-muscle use the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**26. A** — Bypassing the upper airway removes natural conditioning, so adequate heated humidification helps preserve secretion mobility. This makes verify and optimize heated humidification of inspired gas the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**27. C** — A rising or normalizing PaCO<sub>2</sub> during severe asthma can be ominous when effort and fatigue worsen, indicating declining ventilation. This makes possible respiratory muscle fatigue and impending ventilatory failure the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**28. D** — Readiness requires improvement of the precipitating problem, stable gas exchange and circulation, and spontaneous respiratory capability. This makes hemodynamic stability, adequate oxygenation, and ability to initiate breaths the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**29. A** — Effective clearance mobilizes secretions and improves ventilation; adverse or absent response requires reassessment. This makes greater sputum expectoration with improved breath sounds and dyspnea the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**30. D** — Stridor localizes obstruction to the upper airway and warrants rapid assessment rather than assuming typical bronchospasm. This makes upper-airway obstruction requiring prompt airway evaluation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**31. B** — An isolated rise in peak pressure reflects increased resistance between the ventilator and alveoli, so airway and circuit causes come first. This makes airway secretions, tube patency, circuit

kinking, and bronchospasm the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**32. C** — A written plan linking symptoms and personal-best peak flow to specific actions supports early recognition and appropriate escalation. This makes use symptoms and peak-flow zones within a written action plan the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**33. A** — Exercise testing directly reveals exertional desaturation and permits titration under the conditions that provoke symptoms. This makes supervised exertional oximetry such as a six-minute walk test the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**34. B** — Device and medication availability must be verified before labeling treatment failure; education prevents recurrence. This makes replace the inhaler and review dose tracking and technique the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**35. D** — Fragile bullae and excessive pressure increase pneumothorax risk, so sudden deterioration requires immediate evaluation. This makes barotrauma producing a pneumothorax the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**36. C** — The combination indicates obstructive shock from tension pneumothorax; decompression must not wait for routine testing. This makes emergency decompression for suspected tension pneumothorax the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**37. B** — Flail chest care prioritizes oxygenation, pain control, pulmonary hygiene, and support based on ventilatory status. This makes provide oxygen, analgesia support, and ventilatory assistance as needed the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**38. C** — Abrupt loss of expected drainage with deterioration suggests obstruction; rapidly checking the system can identify a reversible cause. This makes inspect the tubing for kinks, dependent loops, or obstruction the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**39. A** — Contamination and reduced consciousness threaten airway patency, making suction and a secured airway the immediate priorities. This makes suction the airway and prepare for definitive airway management the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**40. D** — Inhalation injury can cause rapidly progressive edema; early airway control is safer than attempting intubation after obstruction develops. This makes recommend early intubation before upper-airway edema progresses the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**41. B** — Noninvasive positive pressure improves oxygenation and reduces preload and work of breathing in suitable alert patients. This makes apply cpap or bilevel positive pressure with supplemental oxygen the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**42. A** — The acute postoperative pattern raises concern for pulmonary embolism, requiring timely diagnostic evaluation rather than unrelated pulmonary testing. This makes prompt evaluation for pulmonary embolism with appropriate imaging the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**43. C** — Improved gas exchange and work of breathing without hemodynamic compromise supports continuation; instability requires escalation. This makes reduced respiratory effort with improved oxygenation and blood pressure stability the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**44. D** — Elevated left-sided filling pressure supports cardiogenic hydrostatic edema rather than isolated airway or permeability disease. This makes hydrostatic pulmonary edema from left-sided cardiac dysfunction the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**45. B** — Documented hypoxemia should be corrected with titrated oxygen while the cardiac cause receives definitive treatment. This makes titrate supplemental oxygen to correct documented hypoxemia the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**46. D** — Abrupt withdrawal can cause rebound elevation of pulmonary vascular resistance and rapid deterioration, so therapy restoration and assessment are urgent. This makes restore the prescribed therapy and assess for rebound pulmonary hypertension the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**47. C** — Hemodynamic instability and inability to protect the airway are major signs of noninvasive support failure. This makes discontinue reliance on nppv and prepare for invasive airway support the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**48. A** — A 12-lead ECG identifies the rhythm and helps guide urgent management while respiratory stability is supported. This makes acquire a 12-lead ecg while assessing oxygenation and stability the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**49. A** — Shock or hypotension signals severe pulmonary vascular obstruction and requires immediate multidisciplinary escalation. This makes hemodynamic instability indicating obstructive circulatory compromise the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**50. C** — Support can be reduced when the underlying process and gas exchange improve without recurrent distress. This makes stable oxygenation with reduced work of breathing on lower support the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**51. D** — Serial decline in strength and cough predicts ventilatory failure; early airway planning is safer than waiting for collapse. This makes prepare for ventilatory support before overt respiratory arrest the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**52. B** — Bedside respiratory mechanics and secretion handling reveal progression toward neuromuscular ventilatory failure. This makes serial vital capacity and maximal inspiratory pressure measurements the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**53. D** — Cough-assist techniques create expiratory flow when respiratory muscle weakness prevents an effective natural cough. This makes mechanical insufflation-exsufflation with assisted coughing the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**54. C** — Cough and desaturation during feeding suggest aspiration; stopping exposure and evaluating swallowing protects the airway. This makes stop feeding and request a formal swallowing and aspiration evaluation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**55. B** — Opioid-induced hypoventilation requires immediate ventilatory support and consideration of naloxone while monitoring for recurrence. This makes support ventilation and recommend opioid reversal when indicated the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**56. A** — ARDS management emphasizes lung-protective ventilation to limit overdistension and ventilator-induced injury. This makes use lung-protective tidal volume based on predicted body weight the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**57. A** — Excess plateau pressure indicates high alveolar distending pressure; reducing tidal volume can limit injury. This makes reduce tidal volume while maintaining lung-protective ventilation goals the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**58. C** — The pattern suggests postoperative atelectasis, best addressed by pain control, mobility, and coached lung expansion. This makes provide analgesia support, mobilization, deep breathing, and lung expansion the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**59. B** — Culture data can identify the pathogen and guide targeted antimicrobial therapy while supportive care continues. This makes obtain an appropriate respiratory specimen for culture and sensitivity the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**60. D** — Tube migration with unilateral ventilation and a changed depth mark strongly suggests mainstem intubation. This makes right mainstem intubation from excessive tube advancement the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**61. C** — Failure to pass a catheter indicates critical tube obstruction requiring immediate airway intervention. This makes treat the tube as obstructed and prepare for urgent replacement the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**62. A** — Prone positioning can improve ventilation-perfusion matching and recruit dorsal lung regions in severe ARDS. This makes place the patient in the prone position with a trained team the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**63. B** — The acute infectious symptoms and focal radiographic consolidation support pneumonia over chronic or pleural disorders. This makes community-acquired pneumonia with focal consolidation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**64. D** — Immunocompromise broadens the differential, so early targeted evaluation and respiratory support are essential. This makes promptly obtain targeted diagnostic studies while supporting oxygenation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**65. C** — Ventilatory compensation lowers PaCO<sub>2</sub> and helps defend pH; suppressing it can precipitate severe acidemia. This makes the high minute ventilation may be compensating for metabolic acidemia the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**66. D** — Lower-airway sampling helps identify pathogens and guide therapy while infection-prevention measures remain important. This makes obtain an appropriate lower-respiratory specimen before targeted antibiotics when feasible the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**67. A** — A blocked inner cannula is rapidly reversible; immediate removal and airway assessment take priority. This makes remove the inner cannula and assess for obstruction while oxygenating the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**68. B** — A pulmonary exacerbation requires intensified clearance, microbiologic assessment, antibiotics, and supportive care. This makes increase airway clearance and obtain cultures to guide antimicrobial therapy the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**69. D** — The P/F ratio equals arterial oxygen tension divided by inspired oxygen fraction: 60 divided by 0.80 equals 75 mm Hg, indicating severe oxygenation impairment. This makes 75 mm hg the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**70. B** — Low bicarbonate and acidemia identify metabolic acidosis; the reduced PaCO<sub>2</sub> reflects compensatory hyperventilation. This makes primary metabolic acidosis with respiratory compensation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**71. A** — The patient shows intolerance; returning to support prevents exhaustion while reversible causes are evaluated. This makes terminate the trial and return to prior support while identifying the cause the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**72. C** — The abrupt respiratory change during feeding suggests aspiration, requiring immediate airway and oxygenation assessment. This makes aspiration of enteral feeding into the lower respiratory tract the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**73. B** — Thoracentesis samples and removes pleural fluid, potentially relieving compression while clarifying the cause. This makes thoracentesis performed with appropriate imaging and monitoring the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**74. C** — Conventional pulse oximetry cannot distinguish oxyhemoglobin from carboxyhemoglobin; CO-oximetry directly measures the abnormal species. This makes measure carboxyhemoglobin using co-oximetry the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**75. A** — CO-oximetry separates hemoglobin species and confirms methemoglobinemia when pulse oximetry is misleading. This makes obtain co-oximetry to measure methemoglobin directly the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**76. D** — Sedative-related hypoventilation threatens ventilation and airway protection, requiring immediate support and reversal consideration. This makes support ventilation and evaluate for medication-related respiratory depression the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**77. B** — Static compliance equals tidal volume divided by plateau pressure minus total PEEP:  $500 \text{ divided by } 15 \text{ is approximately } 33 \text{ mL/cm H}_2\text{O}$ . This makes 33 ml/cm h<sub>2</sub>o the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**78. C** — A systematic airway assessment identifies underinflation, system failure, malposition, or cuff damage before unsafe compensation. This makes cuff pressure, pilot balloon integrity, tube position, and cuff failure the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**79. D** — Unilateral findings after line placement strongly suggest pneumothorax and require urgent confirmation and treatment. This makes evaluate immediately for an iatrogenic pneumothorax the most appropriate response in this situation. The alternative choices either address unsupported physiology,

delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**80. A** — Basic positioning and manual airway opening are immediate, reversible measures while further airway support is prepared. This makes reposition the airway and apply a jaw thrust with oxygen support the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**81. D** — Minimal air movement with neurologic decline signals impending respiratory failure and requires immediate escalation. This makes prepare for advanced airway support while continuing urgent bronchodilator therapy the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**82. B** — Supportive care and gentle secretion removal address common physiologic problems without unnecessary or traumatic interventions. This makes provide gentle nasal suction, oxygen as indicated, and supportive monitoring the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**83. A** — Stridor at rest indicates significant upper-airway obstruction; epinephrine provides rapid improvement while steroids reduce edema. This makes administer nebulized epinephrine and systemic corticosteroid therapy the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**84. C** — Unplanned pharyngeal manipulation can precipitate complete obstruction; airway management should occur in a controlled setting. This makes agitating the child with an unplanned throat examination the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**85. A** — A changed depth marking with deterioration strongly suggests displacement and requires immediate airway evaluation. This makes partial extubation or tube displacement the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. The therapist should verify the response with objective measurements and escalate care if deterioration continues.

**86. C** — The value is 60% of personal best, which lies in the usual 50% to 79% yellow range. This makes yellow zone requiring action according to the asthma plan the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**87. D** — Rising support needs and altered mental status indicate deterioration and possible respiratory failure. This makes escalate respiratory assessment and support while notifying the care team the most appropriate response in this situation. The alternative choices either address unsupported physiology,

delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**88. B** — An impassable tracheostomy with distress indicates obstruction; restoring a patent airway is urgent. This makes remove and replace the obstructed tracheostomy tube per emergency protocol the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**89. C** — Calming, oxygen, and knee-chest positioning can improve systemic resistance and pulmonary blood flow while definitive care is mobilized. This makes calm the infant, provide oxygen, and use knee-chest positioning the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**90. B** — Systemic beta-agonist effects require reassessment of benefit, dose, and safety rather than automatic continuation or escalation. This makes reassess severity, dose, delivery, and treatment response before continuing the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**91. A** — Prematurity, respiratory distress, and diffuse reticulogranular imaging strongly support surfactant-deficient respiratory distress syndrome. This makes neonatal respiratory distress syndrome from surfactant deficiency the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**92. D** — Apnea with heart rate below 100/min requires effective positive-pressure ventilation; ventilation is the key neonatal resuscitation step. This makes begin effective positive-pressure ventilation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**93. C** — An ineffective breath must be corrected before compressions because neonatal bradycardia is commonly caused by inadequate ventilation. This makes perform ventilation corrective steps to achieve visible chest movement the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**94. A** — A heart rate below 60/min after effective ventilation requires coordinated compressions and ventilation. This makes begin coordinated chest compressions with ventilation and appropriate oxygen the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**95. D** — Worsening ventilation, oxygenation, and apnea indicate CPAP failure and require prompt escalation and diagnostic reassessment. This makes escalate ventilatory support and evaluate for

surfactant and other causes the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.

**96. B** — A vigorous newborn does not require routine tracheal suctioning; standard care and observation are appropriate. This makes provide routine initial care and ongoing clinical observation the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**97. B** — A meaningful preductal-postductal difference suggests ductal right-to-left shunting and elevated pulmonary vascular resistance. This makes persistent pulmonary hypertension with right-to-left ductal shunting the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**98. A** — Sudden unilateral findings during positive-pressure ventilation strongly suggest an air leak requiring urgent evaluation. This makes evaluate immediately for pneumothorax and prepare for decompression the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**99. C** — Blended, monitored oxygen corrects hypoxemia while limiting unnecessary hyperoxia and related injury. This makes use blended oxygen and titrate to the prescribed saturation target the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm. Clear team communication helps maintain a safe treatment sequence.

**100. D** — Correct interface position and seal first so prescribed distending pressure reaches the patient effectively. This makes reposition the interface and reassess seal, pressure delivery, and response the most appropriate response in this situation. The alternative choices either address unsupported physiology, delay essential stabilization, or expose the patient to avoidable harm.