

Lab Equipment Aligns with the 2027 NBRC Respiratory Therapy Examination Detailed Content Outline

This document is intended as a practical guide for laboratory and instructional use. Items are grouped according to major exam content domains (Patient Data, Device Management, Interventions, and Special Procedures).

I. Patient Data & Diagnostics

- Arterial blood gas sampling kits (syringes, needles, safety devices)
- Point-of-care blood gas analyzer
- Hemoximeter / CO-oximeter
- Pulse oximeters (portable and tabletop)
- Capnography monitors (mainstream and sidestream)
- Transcutaneous monitoring devices
- ECG machines (12-lead and bedside monitors)
- Peak flow meters
- Spirometers (portable and lab-based)
- DLCO testing system
- Body plethysmograph or lung volume measurement system
- Respiratory muscle strength testing equipment (MIP/MEP, MVV)
- Imaging viewing systems (CXR, CT, ultrasound, V/Q scan access)
- Sleep study (polysomnography) equipment or demonstration system
- Exercise testing equipment (treadmill or cycle ergometer, with SpO₂ and ECG monitoring)
- 6-minute walk test supplies (pulse oximeter, stopwatch, marked course)
- Sputum induction nebulizers
- Mini-BAL and BAL kits for simulation
- Laboratory specimen collection supplies (CBC, electrolytes, cultures, biomarkers)

II. Management of Devices & Patient Safety

2.18.26

***Disclaimer statement:** This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

- Oxygen delivery devices (nasal cannula, simple mask, partial/non-rebreather, air-entrainment masks)
- Heated high-flow nasal cannula system
- Air-oxygen blenders and analyzers
- Flowmeters, regulators, gas cylinders, concentrators, liquid oxygen system
- Humidifiers (heated and bubble)
- Small-volume nebulizers, large-volume nebulizers
- MDIs, DPIs, SMIs with spacers and valved holding chambers
- Resuscitation equipment (self-inflating bag, flow-inflating bag, T-piece resuscitator, defibrillator)
- Mechanical ventilators (adult, pediatric, neonatal)
- Noninvasive ventilators (CPAP, BiPAP, home and hospital grade)
- High-frequency ventilator (demonstration or simulation)
- Artificial airways (oral, nasal, supraglottic, ETTs, tracheostomy tubes, laryngectomy tubes, speaking valves)
- Cuff manometers
- Video laryngoscope and traditional laryngoscopes
- Flexible fiberoptic bronchoscope
- Suctioning equipment (regulators, canisters, tubing, closed/open catheters)
- Chest drainage system
- Hyperinflation devices (manual resuscitator, incentive spirometer, IPPB if available)
- Secretion clearance devices (oscillatory PEP, high-frequency chest wall oscillation, cough assist device)
- Specialty gas delivery devices (nitric oxide, heliox, epoprostenol delivery system)
- Inhaled gas analyzers
- Breathing circuits and test lungs
- Infection control supplies (PPE, isolation supplies, disinfection systems)
- Quality assurance testing devices for analyzers and ventilators

III. Interventions & Therapeutics

2.18.26

***Disclaimer statement:** This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

- Postural drainage tables and percussion/vibration devices
- Airway clearance adjuncts (PEP, flutter, vest system)
- Inspiratory muscle trainers
- CPAP/NPPV titration equipment
- Lung recruitment maneuver simulation tools
- Medication delivery systems (nebulizers, MDIs, DPIs, IV access simulation)
- Specialty gas delivery systems (NO, He/O₂, aerosolized vasodilators)
- Emergency airway management kits (bougies, tube exchangers, supraglottic devices)
- Intubation trainers/manikins
- Tracheostomy care kits
- Extubation and airway exchange simulation equipment

IV. Special Procedures & Support

- Thoracentesis trainer or kit (simulation)
- Chest tube insertion trainer
- Arterial and venous line insertion trainer
- Moderate sedation monitoring equipment
- Cardioversion/defibrillation training system
- Patient transport equipment (portable ventilator, portable O₂, monitoring)
- Simulation equipment for neonatal and pediatric resuscitation (NRP-compatible)
- Pulmonary rehabilitation equipment (treadmill, ergometer, resistance devices)
- Home care equipment (oxygen concentrators, portable O₂ systems, home ventilators, suction units)

PATIENT ASSESSMENT

Electronic medical record

Stethoscopes

Breath Sounds Generator? (Manikin)

Blood Pressure Cuffs

12-lead Electrocardiograph

2.18.26

***Disclaimer statement:** This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

Capnograph

Pulse Oximeters

Transcutaneous monitor

ABG arms

ABG kits

Spirometer

3-L calibrating syringe

Peak flowmeters

MIP/MEP devices

Personal protective equipment

AIRWAY CARE

Colorimetric detector (EZ Caps)

Oropharyngeal airways

Nasopharyngeal airways

Intubation mannikins (adult & neonatal)

Laryngoscope handles

Laryngoscope blades

Laryngoscope blade video device (GlideScope®)

Stylets

Magill forceps

Endotracheal tubes (adult, pediatric, neonatal, CASS tubes, Double-lumen tubes)

Laryngeal mask airways

Tracheostomy tubes

Tracheal buttons

Tracheal speaking devices

Cuff pressure monitor

Endotracheal tube changers

2.18.26

***Disclaimer statement:** This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

Tracheostomy care kits

Suction regulator & collection bottle

Open suction kits

Closed/inline suction catheters

Lukens/suction traps

Sputum containers

Bodai adaptors

HYPERINFLATION THERAPY

Incentive Spirometers

IPPB Machine & Circuits

BRONCHIAL HYGIENE

Adjustable patient bed

Mechanical percussors

PEP Devices

External percussive devices

Intrapulmonary percussive ventilation device

Insufflation/exsufflation device / cough-assist device

HUMIDITY & AEROSOL THERAPY

Bubble humidifiers

Heat moisture exchangers

Heated wick humidifiers

Heated wire circuits

Small volume nebulizers

Unit dose saline solution

Large volume nebulizers

Electronic nebulizers (ultrasonic, vibrating mesh)

Metered dose inhaler

2.18.26

Disclaimer statement: *This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

Spacers & holding chambers

Dry powder inhalers

Aerosol masks

Trach collars

Face masks

OXYGEN DELIVERY DEVICES

Oxygen cylinders (H/K and E)

Cylinder regulators

Flowmeters (Thorpe tube & Bourdon gauge)

Nasal cannula

Simple masks

Partial rebreather masks

Non-rebreather masks

Air entrainment /Venti masks

High flow nasal cannula device with circuit

Oxygen hood

Oxygen blenders

Oxygen analyzers

CPAP circuits

ENVIRONMENTAL CONTROL DEVICES

Isolette

Radiant warmer

VENTILATORY SUPPORT

Self-inflating manual resuscitation bags

Flow-inflating manual resuscitation bags

Adult and infant mechanical ventilators

Bi-level ventilators & circuits

2.18.26

Disclaimer statement: *This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.*

Ventilator circuits

Mechanical lungs / lung simulators

SPECIAL PROCEDURES

Disposable chest drainage systems

2.18.26

Disclaimer statement: This guidance document is intended to support compliance with the CoARC Standards. It is not exhaustive and does not prescribe the only means of demonstrating compliance. Programs may demonstrate compliance in other ways, provided they meet the intent and requirements of the Standards.