

Pediatric Learning Solutions

Pediatric Learning Solutions' course alignment with the Neonatal/Pediatric Specialty Examination Detailed Content Outline.

The following Pediatric Learning Solutions courses align to focus areas of the Certified Pediatric Neonatal/Pediatric Specialty (NPS®) exam content outline. These courses support candidates by delivering foundational content and are an additional respected preparatory resource for candidates to consider prior to their NPS exam. Go to [The National Board for Respiratory Care](#) site for more information on the NPS exam.



Competencies Shared Between Critical and General Care

Assess Patient Information

- Patient History/Exam
 - Pediatric Assessment:
 - The Cardiovascular System
 - The Gastrointestinal System
 - The Genitourinary System
 - The Integumentary System
 - The Musculoskeletal System
 - The Neurological System
 - The Respiratory System
 - Comprehensive Assessment of the Neonate
 - Assessment of the Critically Ill Child
 - Age-Specific Care for:
 - Adolescents
 - Adults
 - Infants
 - Toddlers
 - Newborns
 - Preschoolers
 - School-Age Children
 - Developmental Care of the Newborn
 - Child Abuse and Neglect
 - Domestic Violence
 - Glucose Homeostasis in the Neonate
 - Introduction to Pediatric Pressure Injuries
 - Pressure Injuries in the Pediatric Population: Staging and Care
 - Pressure Injuries Staging Assessment
 - Caring for the Behaviorally Challenged Patient
 - Care of the Pediatric Patient with Suicidal Ideation
 - Attention-Deficit/Hyperactivity Disorder (ADHD)
 - Autism Spectrum Disorder (ASD)
 - Oppositional Defiant Disorder (ODD)
- Anxiety Disorders and Obsessive-Compulsive Disorder
- Pediatric Mood Disorders
- Psychotic Disorders
- Trauma- and Stressor-related Disorders
- Pain Management: Assessment of Pain
- Laboratory
 - Fluid and Electrolyte Management: Laboratory Assessment
 - Introduction to Arterial Blood Gas Interpretation
 - Management of MDROs in the Health Care Setting (Clinical)
 - Understanding Abnormal Blood Gases
- Imaging
 - Chest X-ray Interpretation
 - Cardiovascular Laboratory Procedures: Diagnostic and Interventional
- Respiratory Physiology/Mechanics
 - Pediatric Assessment: The Respiratory System
 - Advanced Concepts in Respiratory Physiology
 - Lower Airway Diseases
- Neurologic
 - Pediatric Assessment: The Neurological System
 - Hydrocephalus
 - Lower Airway Diseases
 - Intracranial Pressure Monitoring
 - Hypoxic Ischemic Encephalopathy
 - Advanced Concepts in Respiratory Physiology
 - Neonatal Cranial Hemorrhage
 - Craniotomy
- Cardiovascular
 - Pediatric Assessment: The Cardiovascular System
 - Acquired Heart Disease in Children
 - Hemodynamic Monitoring
 - Pulmonary Arterial Hypertension
 - Congenital Heart Disease: Acyanotic Defects
 - Congenital Heart Disease: Cyanotic Defects
 - Congenital Heart Disease: An Overview
 - Extrauterine Life: Fetal to Neonatal Circulation
- Respiratory Failure Mechanisms
 - Lower Airway Diseases
 - Status Asthmaticus
 - Acute Respiratory Distress Syndrome
 - Apnea of Prematurity
- Renal/Metabolic/Endocrine/Nutrition
 - Diabetes Mellitus
 - Diabetes Insipidus and SIADH
 - Renal Failure in the Pediatric Patient
 - Pediatric Nutritional Overview
 - Nutrition in the Critically Ill Child
 - Glucose Homeostasis in the Neonate
 - Metabolic Disorders of the Newborn
 - Fluid and Electrolyte Management: Physical Assessment
 - Fluid and Electrolyte Management: Physiological Differences
- Gastrointestinal
 - Pediatric Assessment: The Gastrointestinal System
 - Gastroschisis and Omphalocele
 - Necrotizing Enterocolitis
 - Nutrition in the Critically Ill Child
 - Comprehensive Assessment of the Neonate
 - Abdominal Emergencies

Competencies Shared Between Critical and General Care

Evaluate Pulmonary Status

- Introduction to Arterial Blood Gas Interpretation
- Understanding Abnormal Blood Gases
- Lower Airway Diseases
- Mechanical Ventilation: Introduction to Pediatric Practices

Assess and Manage Airways

- Caring for a child with a Tracheostomy
- Management of the Difficult Airway
- Comprehensive Assessment of the Neonate

Select and Manage Equipment

- Mechanical Ventilation: Introduction to Pediatric Practices
- Respiratory Inhalation Medications
- Caring for a Child with a Tracheostomy
- Lower Airway Diseases

Facilitate Procedures and Evaluate Efficacy

- Introduction to Arterial Blood Gas Interpretation
- Understanding Abnormal Blood Gases

Manage and/or Anticipate Effects of Medication Administration

- Respiratory Inhalation Medications
- Procedural Sedation in the Pediatric Patient
- Sedation and Analgesia in the ICU
- Congestive Heart Failure
- Caring for the Pediatric Patient in Shock
- Neonatal Sepsis
- Pediatric Sepsis
- Vasoactive Medications
- Neonatal Pharmacokinetics

Anticipate Care Based on Lab Results

- Disseminated Intravascular Coagulation
- Management of MDROs in the Health Care Setting (Clinical)
- Pediatric Toxicology Exposure
- Introduction to Arterial Blood Gas Interpretation

Anticipate Care Based on Imaging and/or Reports of Imaging

- Chest X-ray Interpretation
- Cardiovascular Laboratory Procedures: Diagnostic and Interventional

Manage Care Based on Nutritional Status

- Pediatric Nutritional Overview
- Neonatal Nutrition
- Nutrition in the Critically Ill Child
- Pediatric Nutritional Overview

Prepare for Disaster and Mass Casualty Events

- Emergency Management Operations
- Fire Safety
- Hazardous Chemicals
- Infectious Waste

Assist With or Perform Resuscitation

- Emergency Response for the Non-ALS Provider

Interact with Members of an Interdisciplinary Team

- Therapeutic Relationships and Professional Behavior
- Trauma-Informed Practice: Concepts, Goals and Principles
- Implementing Trauma-Informed Sensitive Practice
- Crisis Prevention through Verbal and Nonverbal De-escalation Strategies

Evaluate Patient and Family Understanding of Education

- Caring for the Complex Patient
- Respiratory Inhalation Medications

Competencies Specific to Critical Care

Evaluate Pertinent Information

- Maternal Factors Affecting the Newborn
- Comprehensive Assessment of the Neonate
- Meconium Aspiration Syndrome
- Extrauterine Life: Assessment of the Neonate's Transition

Assess and Manage Airways

- Emergency Response for the Non-ALS Provider
- Caring for a Child with a Tracheostomy
- Management of the Difficult Airway

Manage Specialty Gas Administration

- Basic Principles of Oxygen Therapy, Specialty Gases and Noninvasive Ventilation
- Meconium Aspiration Syndrome
- Mechanical Ventilation: Introduction to Pediatric Practices

Manage Ventilation and Oxygenation

- Emergency Response for the Non-ALS Care Provider
- Mechanical Ventilation: Introduction to Pediatric Practices
- High-Frequency Ventilation

- Introduction to ECMO
- Meconium Aspiration Syndrome
- Advanced Concepts in Respiratory Physiology
- Preventing Ventilator-Associated Infections
- Introduction to Arterial Blood Gas Interpretation
- Understanding Abnormal Blood Gases

Facilitate Procedures and Evaluate Efficacy

- Nursing Management of Chest Tubes
- Pneumothorax in the Neonate
- Central Lines in the Neonate
- Hypoxic Ischemic Encephalopathy

Manage and/or Anticipate Effects of Medication Administration

- Respiratory Inhalation Medications

Manage End-of-Life Care

- Care of the Dying Child:
 - Care Issues
 - Grief
 - Dying Process
- Health Care Advance Directive: Communicating Wishes
- Organ and Tissue Donation: The Gift of Life

Prevent Hospital-Acquired Conditions

- Preventing Ventilator-Associated Pneumonia
- Mechanical Ventilation: Introduction to Pediatric Practices

- Introduction to Pediatric Pressure Injuries
- Pressure Injuries in the Pediatric Population: Staging and Care

Additional Specifications by Patient

Condition or Disorder

- General
 - Introduction to Ethics
 - Family-Centered Care in the ICU
 - Family-Centered Care in the NICU
 - Caring for the Complex Patient
- Neo Pulmonary
 - Transient Tachypnea of the Newborn (TTNB)
 - Persistent Pulmonary Hypertension of the Newborn (PPHN)
 - Extruterine Life: Assessment of the Neonate's Transition
 - Meconium Aspiration Syndrome
- Infectious Disease
 - Management of MDROs in the Health Care Setting (Clinical)
 - Anthrax: What Clinicians Need to Know
 - Tuberculosis
- Chronic Lung
 - Bronchopulmonary Dysplasia
 - Lower Airway Diseases
- II. Asthma
 - Lower Airway Diseases
- Status Asthmaticus
- Prematurity
 - Respiratory Inhalation Medications
 - Apnea of Prematurity
 - Retinopathy of Prematurity
 - Bronchopulmonary Dysplasia
- Bronchiolitis
 - Lower Airway Diseases
- Congenital Defects (requiring surgical correction)
 - Congenital Diaphragmatic Hernia
 - Gastroschisis and Omphalocele
- Congenital Heart Disease
 - Congenital Heart Disease: An Overview
 - Congenital Heart Disease: Acyanotic Defects
 - Congenital Heart Disease: Cyanotic Defects
- Neurologic
 - Status Epilepticus
 - Meningitis and Encephalitis
 - Neonatal Cranial Hemorrhage
 - Neonatal Seizures
- Pediatric Airway
 - Neonatal Respiratory Distress Syndrome
- Esophageal Atresia and Tracheoesophageal Fistula
- Management of the Difficult Airway
- Shock
 - Pediatric Sepsis
 - Neonatal Sepsis
 - Caring for the Pediatric Patient in Shock
- Trauma
 - Pediatric Abdominal Trauma
 - Pediatric Orthopedic Trauma
 - Pediatric Thoracic Trauma
 - Pediatric Traumatic Brain Injury
 - The Deadly Triad of Trauma
 - Pediatric Spinal Column/Cord Injuries
- Heart Failure
 - Congestive Heart Failure
- Cystic Fibrosis
 - Cystic Fibrosis
- Inhalation
 - Pediatric Burns