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.
## 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
- Extraterine 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
  - Gastrochisis and Omphalocele
  - Necrotizing Enterocolitis
  - Nutrition in the Critically Ill Child
  - Comprehensive Assessment of the Neonate
  - Abdominal Emergencies
## Competencies Shared Between Critical and General Care

<table>
<thead>
<tr>
<th><strong>Evaluate Pulmonary Status</strong></th>
<th><strong>Assess and Manage Airways</strong></th>
<th><strong>Select and Manage Equipment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Arterial Blood Gas Interpretation</td>
<td>Caring for a child with a Tracheostomy</td>
<td>Mechanical Ventilation: Introduction to Pediatric Practices</td>
</tr>
<tr>
<td>Understanding Abnormal Blood Gases</td>
<td>Management of the Difficult Airway</td>
<td>Respiratory Inhalation Medications</td>
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<td>Lower Airway Diseases</td>
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<tr>
<th><strong>Facilitate Procedures and Evaluate Efficacy</strong></th>
<th><strong>Manage and/or Anticipate Effects of Medication Administration</strong></th>
<th><strong>Prepare for Disaster and Mass Casualty Events</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Arterial Blood Gas Interpretation</td>
<td>Caring for the Pediatric Patient in Shock</td>
<td>Emergency Management Operations</td>
</tr>
<tr>
<td>Understanding Abnormal Blood Gases</td>
<td>Neonatal Sepsis</td>
<td>Fire Safety</td>
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<td>Pediatric Sepsis</td>
<td>Hazardous Chemicals</td>
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<td>Vasoactive Medications</td>
<td>Infectious Waste</td>
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<td></td>
<td>Neonatal Pharmacokinetics</td>
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<tr>
<th><strong>Anticipate Care Based on Lab Results</strong></th>
<th><strong>Anticipate Care Based on Imaging and/or Reports of Imaging</strong></th>
<th><strong>Manage Care Based on Nutritional Status</strong></th>
</tr>
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<tr>
<td>Disseminated Intravascular Coagulation</td>
<td>Chest X-ray Interpretation</td>
<td>Pediatric Nutritional Overview</td>
</tr>
<tr>
<td>Management of MDROs in the Health Care Setting (Clinical)</td>
<td>Cardiovascular Laboratory Procedures: Diagnostic and Interventional</td>
<td>Neonatal Nutrition</td>
</tr>
<tr>
<td>Pediatric Toxicology Exposure</td>
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<td>Nutrition in the Critically Ill Child</td>
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<tr>
<th><strong>Assist With or Perform Resuscitation</strong></th>
<th><strong>Interact with Members of an Interdisciplinary Team</strong></th>
<th><strong>Evaluate Patient and Family Understanding of Education</strong></th>
</tr>
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<tr>
<td>Emergency Response for the Non-ALS Provider</td>
<td>Therapeutic Relationships and Professional Behavior</td>
<td>Caring for the Complex Patient</td>
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<td>Trauma-Informed Practice: Concepts, Goals and Principles</td>
<td>Respiratory Inhalation Medications</td>
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<td>Implementing Trauma-Informed Sensitive Practice</td>
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<td>Crisis Prevention through Verbal and Nonverbal De-escalation Strategies</td>
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### Competencies Specific to Critical Care

<table>
<thead>
<tr>
<th>Category</th>
<th>Competencies</th>
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</table>
| 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 | - 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 |
| Prevent Hospital-Acquired Conditions | - Preventing Ventilator-Associated Pneumonia  
- Mechanical Ventilation: Introduction to Pediatric Practices |
| Manage End-of-Life Care | - Care of the Dying Child:  
  o Care Issues  
  o Grief  
  o Dying Process  
- Health Care Advance Directive: Communicating Wishes  
- Organ and Tissue Donation: The Gift of Life |
| | - Introduction to Pediatric Pressure Injuries  
- Pressure Injuries in the Pediatric Population: Staging and Care |
### Additional Specifications by Patient

<table>
<thead>
<tr>
<th>Condition or Disorder</th>
<th>Details</th>
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</table>
| **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)  
• Extraterine 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**| • 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 |
| **Pediatric**         | • 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 |