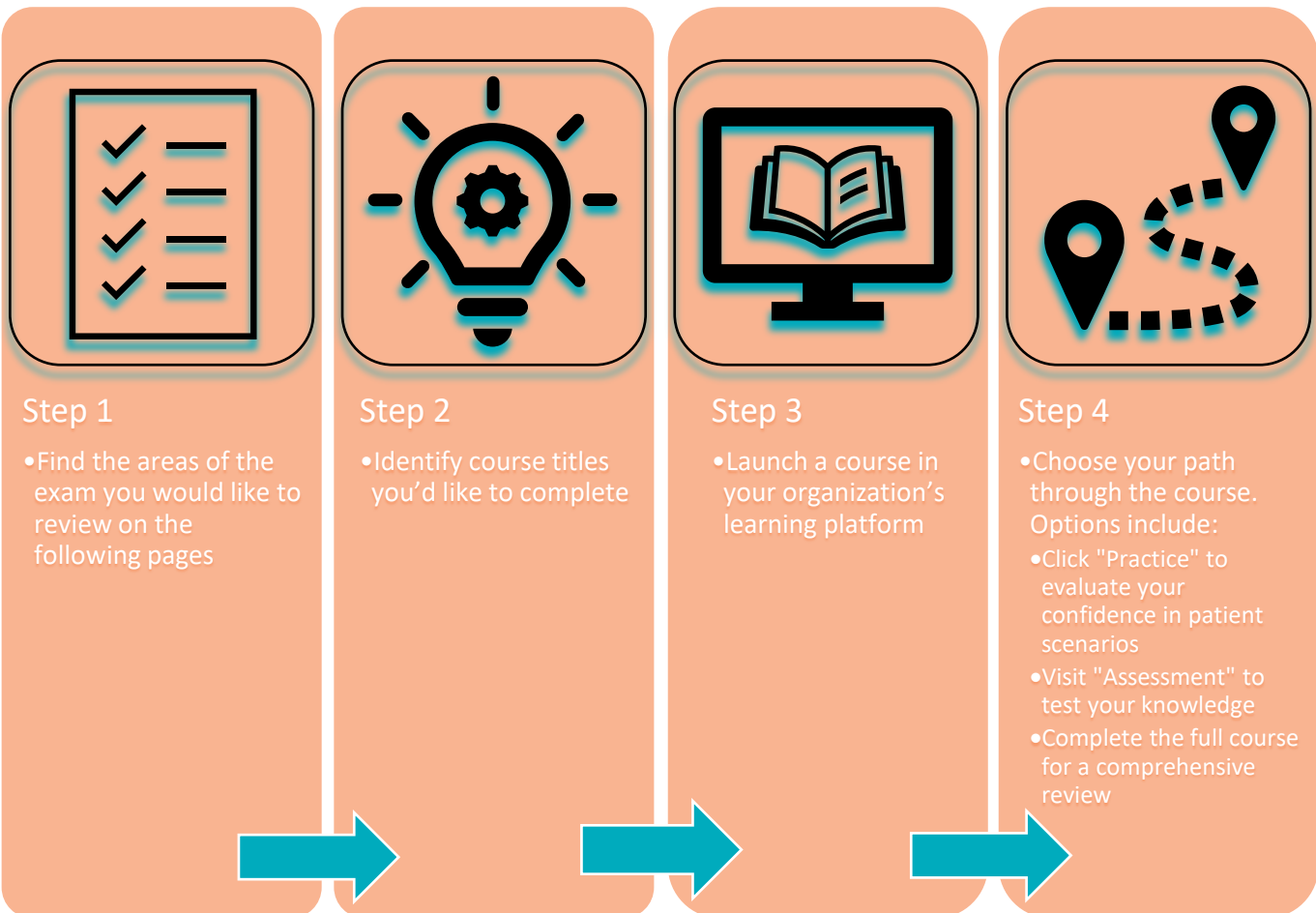


# Pediatric Learning Solutions

## Pediatric Learning Solutions' Course Alignment with the Neonatal/Pediatric Specialty Examination 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 a respected preparatory resource to consider prior to their exam. Go to [The National Board for Respiratory Care site](#) for more information on the NPS® exam.

### Steps to Using this Study Guide



As you review this study guide, please note:

- ✓ It may not be necessary to complete every course on the list—Focus on areas in which learning reinforcement is needed and desired.
- ✓ Some courses apply to multiple exam content focus areas and are therefore listed multiple times.

# Competencies Shared Between Critical and General Care

## Access Patient Information

### Content Patient History/Exam

- ✓ Pediatric Assessment: The Cardiovascular System
- ✓ Pediatric Assessment: The Gastrointestinal System
- ✓ Pediatric Assessment: The Genitourinary System
- ✓ Pediatric Assessment: The Integumentary System
- ✓ Pediatric Assessment: The Musculoskeletal System
- ✓ Pediatric Assessment: The Neurological System
- ✓ Pediatric Assessment: The Respiratory System
- ✓ Comprehensive Assessment of the Neonate
- ✓ Assessment of the Critically Ill Child
- ✓ Age-Specific Care for: Adolescents
- ✓ Age-Specific Care for: Adults
- ✓ Age-Specific Care for: Infants
- ✓ Age-Specific Care for: Toddlers
- ✓ Age-Specific Care for: Newborns
- ✓ Age-Specific Care for: Preschoolers
- ✓ Age-Specific Care for: School-Age Children
- ✓ Developmental Care of the Newborn
- ✓ Child Abuse and Neglect
- ✓ Intimate Partner 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
- ✓ Intracranial Pressure Monitoring and Management
- ✓ Hypoxic Ischemic Encephalopathy
- ✓ Advanced Concepts in Respiratory Physiology
- ✓ Neonatal Cranial Hemorrhage
- ✓ Craniotomy
- ✓ Pediatric Stroke

### 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
- ✓ Arrhythmia Recognition; Just the Basics for the Pediatric Clinician

### Respiratory Failure Mechanisms

- ✓ Lower Airway Diseases
- ✓ Status Asthmaticus
- ✓ Acute Respiratory Distress Syndrome
- ✓ Apnea of Prematurity
- ✓ Pediatric Drowning

### Renal/Metabolic/Endocrine/Nutrition

- ✓ Diabetic Ketoacidosis
- ✓ Diabetes Mellitus
- ✓ Diabetes Insipidus and SIADH
- ✓ Renal Failure in the Pediatric Patient
- ✓ Pediatric Nutritional Overview
- ✓ Nutrition in the Critically Ill Child
- ✓ Neonatal Nutrition
- ✓ 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

## Evaluate Pulmonary Status

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

## Assess and Manage Airways

- ✓ Caring for a Child with a Tracheostomy
- ✓ Management of the Difficult Airway
- ✓ Respiratory Inhalation Medications

## Select and Manage Equipment

- ✓ Basic Principles of Oxygen Therapy, Specialty Gases and Noninvasive Ventilation
- ✓ Mechanical Ventilation: Introduction to Pediatric Practices
- ✓ Caring for a Child with a Tracheostomy

## 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
- ✓ Vasoactive Medications
- ✓ Neonatal Pharmacokinetics
- ✓ Status Asthmaticus

## 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

## Prepare for Disaster and Mass Casualty Events

- ✓ Healthcare Emergency Management
- ✓ Fire Safety
- ✓ Hazardous Chemicals
- ✓ Infectious Waste

## Assist With or Perform Resuscitation

- ✓ Emergency Response for the Deteriorating Pediatric Patient
- ✓ Management of the Difficult Airway
- ✓ Caring for the Perianesthesia Patient

## 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
- ✓ Vicarious Trauma and Self Care

## Evaluate Patient and Family Understanding of Education

- ✓ Caring for the Complex Patient
- ✓ Respiratory Inhalation Medications
- ✓ Caring for a Child with a Tracheostomy
- ✓ Status Asthmaticus

# Competencies Specifics 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 Deteriorating Pediatric Patient
- ✓ Caring for a Child with a Tracheostomy
- ✓ Management of the Difficult Airway
- ✓ Caring for the Perianesthesia Patient

## 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 Deteriorating Pediatric Patient
- ✓ Mechanical Ventilation: Introduction to Pediatric Practices
- ✓ High-Frequency Ventilation
- ✓ Introduction to ECMO
- ✓ Meconium Aspiration Syndrome
- ✓ Advanced Concepts in Respiratory Physiology
- ✓ Preventing Ventilator-Associated Pneumonia
- ✓ Introduction to Arterial Blood Gas Interpretation
- ✓ Understanding Abnormal Blood Gases

## Facilitate Procedures and Evaluate Efficacy

- ✓ Nursing Management of Chest Tubes
- ✓ Central Lines in the Neonate
- ✓ Pediatric Peripheral IV Care and Management
- ✓ Mechanical Ventilation: Introduction to Pediatric Practices

## Manage and/or Anticipate Effects of Medication Administration

- ✓ Respiratory Inhalation Medications
- ✓ Caring for the Perianesthesia Patient

## Manage End-of-Life Care

- ✓ Care of the Dying Child: Care Issues
- ✓ Care of the Dying Child: Grief
- ✓ Care of the Dying Child: 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
- ✓ Preventing Central Line-Associated Bloodstream Infections

# Competencies Specifics to Critical Care

## 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 (TTN)
- ✓ Persistent Pulmonary Hypertension of the Newborn (PPHN)
- ✓ Extrauterine Life: Assessment of the Neonate's Transition
- ✓ Meconium Aspiration Syndrome

### Infectious Disease

- ✓ Management of MDROs in the Health Care Setting (Clinical)
- ✓ Tuberculosis

### Chronic Lung

- ✓ Bronchopulmonary Dysplasia
- ✓ Lower Airway Diseases

### 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 Stroke

### 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
- ✓ Pediatric Drowning
- ✓ Pediatric Toxicology Exposure

### Heart Failure

- ✓ Congestive Heart Failure

### Cystic Fibrosis

- ✓ Cystic Fibrosis

### Inhalation

- ✓ Pediatric Burns