

PEDIATRIC CCRN TEST PLAN

I. Clinical Judgment (80%)

A. Cardiovascular (14%)

1. Acute pulmonary edema
2. Cardiac surgery (e.g., Norwood, BT shunt, TOF repair, arterial switch)
3. Cardiogenic shock
4. Cardiomyopathies (e.g., hypertrophic, dilated, restrictive, idiopathic)
5. Dysrhythmias
6. Heart failure
7. Hypovolemic shock
8. Interventional cardiology (e.g., catheterization)
9. Myocardial conduction system defects
10. Structural heart defects (acquired and congenital, including valvular disease)

B. Pulmonary (18%)

1. Acute lung injury (e.g., ARDS, RDS)
2. Acute pulmonary embolus
3. Acute respiratory failure
4. Acute respiratory infections (e.g., acute pneumonia, croup, bronchiolitis)
5. Air-leak syndromes (e.g., pneumothorax, pneumopericardium)
6. Aspiration (e.g., aspiration pneumonia, foreign-body, meconium)
7. Asthma, chronic bronchitis
8. Broncopulmonary dysplasia
9. Congenital anomalies (e.g., diaphragmatic hernia, tracheoesophageal fistula, choanal atresia, pulmonary hypoplasia, tracheal malacia, tracheal stenosis)
10. Pulmonary hypertension
11. Status asthmaticus
12. Thoracic surgery
13. Thoracic trauma (e.g., fractured ribs, lung contusions, tracheal perforation)

C. Endocrine (5%)

1. Acute hypoglycemia
2. Diabetes insipidus
3. Diabetic ketoacidosis
4. Inborn errors of metabolism
5. Syndrome of inappropriate secretion of antidiuretic hormone (SIADH)

D. Hematology/Immunology (3%)

1. Coagulopathies (e.g., ITP, DIC, HIT)
2. Oncologic complications

E. Neurology (14%)

1. Acute spinal cord injury
2. Brain death (irreversible cessation of whole brain function)
3. Congenital neurological abnormalities (e.g., myelomeningocele, encephalocele, AV malformation)
4. Encephalopathy (e.g., anoxic, hypoxic-ischemic, metabolic, infectious)
5. Head trauma (e.g., blunt, penetrating, skull fractures)
6. Hydrocephalus
7. Intracranial hemorrhage/intraventricular hemorrhage (e.g., subarachnoid, epidural, subdural)
8. Neurologic infectious disease (e.g., congenital, viral, bacterial)
9. Neuromuscular disorders (e.g., muscular dystrophy, Guillian-Barré, myasthenia gravis)
10. Neurosurgery
11. Seizure disorders
12. Space-occupying lesions (e.g., brain tumors)
13. Spinal fusion
14. Stroke (e.g., ischemic, hemorrhagic)

F. Gastrointestinal (6%)

1. Acute abdominal trauma
2. Acute GI hemorrhage
3. Bowel infarction/obstruction/perforation (e.g., necrotizing enterocolitis, mesenteric ischemia, adhesions)
4. Gastro-esophageal reflux
5. GI abnormalities (e.g., omphalocele, gastrochisis, volvulus, Hirshsprung's disease, malrotation, intussusception)
6. GI surgeries
7. Hepatic failure/coma (e.g., portal hypertension, cirrhosis, esophageal, varices, biliary atresia)
8. Malnutrition and malabsorption

G. Renal (6%)

1. Acute renal failure
2. Chronic renal failure
3. Life-threatening electrolyte imbalances

PEDIATRIC CCRN TEST PLAN (CONTINUED)

H. Multisystem (11%)

1. Asphyxia
2. Distributive shock (e.g., anaphylaxis)
3. Hemolytic uremic syndrome
4. Multi-organ dysfunction syndrome (MODS)
5. Multisystem trauma
6. Near-drowning
7. Sepsis/septic shock
8. Systemic inflammatory response syndrome (SIRS)
9. Toxic ingestions/inhalations (e.g., drug/alcohol overdose)
10. Toxin/drug exposure

I. Behavioral/Psychosocial (3%)

1. Abuse/neglect
2. Developmental delays
3. Failure to thrive

II. Professional Caring and Ethical Practice (20%)

A. Advocacy/Moral Agency (3%)

B. Caring Practices (4%)

C. Collaboration (4%)

D. Systems Thinking (2%)

E. Response to Diversity (2%)

F. Clinical Inquiry (2%)

G. Facilitation of Learning (3%)

**AACN Certification Corporation
PEDIATRIC CCRN TEST PLAN**

TESTABLE NURSING ACTIONS

Cardiovascular
<ul style="list-style-type: none"> ▪ Identify and monitor normal and abnormal physical assessment findings
<ul style="list-style-type: none"> ▪ Apply leads for cardiac monitoring
<ul style="list-style-type: none"> ▪ Identify, interpret, and monitor cardiac rhythms
<ul style="list-style-type: none"> ▪ Monitor hemodynamic status and recognize signs and symptoms of hemodynamic instability
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients requiring: <ul style="list-style-type: none"> ○ 12-lead ECG ○ arterial line ○ cardiac catheterization ○ cardioversion ○ central venous access ○ central venous pressure monitoring ○ defibrillation ○ PA catheter ○ cardiocentesis ○ SvO₂ monitoring ○ transthoracic pacing ○ transvenous pacing
<ul style="list-style-type: none"> ▪ Manage patients receiving cardiovascular medications (e.g., thrombolytics, vasoactive agents, platelet inhibitors, anti-arrhythmic medications) and monitor: <ul style="list-style-type: none"> ○ patients and follow protocols for cardiac surgery
<ul style="list-style-type: none"> ▪ Recognize signs and symptoms of cardiovascular emergencies, initiate interventions, and seek assistance as needed
Pulmonary
<ul style="list-style-type: none"> ▪ Identify and monitor normal and abnormal physical assessment findings
<ul style="list-style-type: none"> ▪ Interpret ABGs
<ul style="list-style-type: none"> ▪ Monitor patient for response to pulmonary medications (e.g., bronchodilators, mucolytics)
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients requiring: <ul style="list-style-type: none"> ○ artificial airway ○ bronchoscopy ○ chest tubes ○ conventional modes of mechanical ventilation ○ high-frequency mechanical ventilation ○ non-invasive positive pressure ventilation (e.g., BIPAP, CPAP, high-flow nasal cannula) ○ oxygen therapy delivery devices ○ prevention of complications related to mechanical ventilation (e.g., barotraumas, VAP) ○ pulmonary therapeutic interventions (e.g., airway clearance, intubation, weaning, extubation) ○ respiratory monitoring devices (e.g., SPO₂, SvO₂, ETCO₂) and report values ○ therapeutic gases (e.g., nitric, heliox, CO₂) ○ thoracentesis

Effective for testing starting January 13, 2010.

TESTABLE NURSING ACTIONS (CONTINUED)

- Recognize signs and symptoms of respiratory emergencies, initiate interventions, and seek assistance as needed
- Monitor patient and follow protocols for thoracic and ENT surgery

Endocrine

- Recognize normal and abnormal physical assessment findings
- Recognize signs and symptoms of endocrine emergencies, initiate interventions, and seek assistance as needed
- Identify and monitor normal and abnormal diagnostic test results
- Implement treatment modalities for acute hypo/hyperglycemia (e.g., insulin therapy)
- Monitor patient and follow protocols for surgery related to the endocrine system
- Manage patients receiving medications and monitor response

Hematology/Immunology

- Recognize normal and abnormal physical assessment findings of patients with:
 - hematologic problems
 - immunologic problems
- Identify and monitor normal and abnormal diagnostic test results (e.g., PT/INR, PTT, fibrinogen, CBC)
- Manage patients receiving medications (e.g., IVIG, steroids, chemotherapy) and monitor response
- Recognize and manage complications associated with transfusion of blood products
- Monitor patient and follow protocols pre-, intra-, and post-procedure (e.g., plasmapheresis, exchange transfusion, autotransfusion)
- Recognize signs and symptoms of hematologic/immunologic emergencies, initiate interventions, and seek assistance as needed

Neurology

- Identify and monitor normal and abnormal physical assessment findings
- Recognize and monitor normal and abnormal neurological diagnostic test results (e.g., ICP, head CT scan, lumbar puncture)
- Recognize indications for and monitor/manage patients requiring neurological monitoring devices and drains
- Manage patients receiving medications (e.g., mannitol, hypertonic saline, sedation, neuromuscular blockade, anticonvulsants) and monitor response
- Recognize signs and symptoms of neurological emergencies (e.g., increased intracranial pressure, herniation, decreased LOC, seizure), initiate interventions, and seek appropriate consultation
- Monitor patient and follow protocols pre-, intra-, and post-procedure (e.g., ICP insertion, lumbar puncture)
- Monitor patient and follow protocols for neurosurgery

Gastrointestinal

- Identify and monitor normal and abnormal physical assessment findings
- Recognize and monitor normal and abnormal gastrointestinal diagnostic test results

TESTABLE NURSING ACTIONS (CONTINUED)
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients with gastrointestinal: <ul style="list-style-type: none"> ○ monitoring devices (e.g., intra-abdominal compartment pressure) ○ drains ○ complications of enteral and parenteral nutrition
<ul style="list-style-type: none"> ▪ Manage patients receiving gastrointestinal medications and monitor response
<ul style="list-style-type: none"> ▪ Monitor patient and follow protocols, pre-, intra-, and post-procedure (e.g., EGD, PEG placement)
<ul style="list-style-type: none"> ▪ Monitor patients and follow protocols for gastrointestinal surgery
<ul style="list-style-type: none"> ▪ Recognize signs and symptoms of emergencies (e.g., GI bleed, ischemic bowel), initiate interventions, and seek assistance as needed
Renal
<ul style="list-style-type: none"> ▪ Recognize normal and abnormal physical assessment findings
<ul style="list-style-type: none"> ▪ Identify and monitor normal and abnormal diagnostic test results
<ul style="list-style-type: none"> ▪ Manage patients receiving renal medications and monitor response
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients requiring renal therapeutic intervention (e.g., CRRT, peritoneal dialysis)
<ul style="list-style-type: none"> ▪ Monitor patients and follow protocols for: <ul style="list-style-type: none"> ○ renal surgery ○ pre-, intra-, and post-procedure (e.g., renal biopsy, ultrasound)
<ul style="list-style-type: none"> ▪ Recognize signs and symptoms of renal emergencies, initiate interventions, and seek assistance as needed
Multisystem
<ul style="list-style-type: none"> ▪ Recognize and monitor normal and abnormal diagnostic test results (e.g., lab, radiology)
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients undergoing: <ul style="list-style-type: none"> ○ continuous sedation ○ procedural sedation ○ therapeutic hypothermia
<ul style="list-style-type: none"> ▪ Assess patient's pain
<ul style="list-style-type: none"> ▪ Manage patients receiving: <ul style="list-style-type: none"> ○ medications (e.g., pain medications, reversal agents) and monitor response ○ non-pharmacologic methods for pain relief and monitor response
<ul style="list-style-type: none"> ▪ Recognize signs and symptoms of multisystem emergencies (e.g., shock states, trauma), initiate interventions, and seek assistance as needed
Behavioral/Psychosocial
<ul style="list-style-type: none"> ▪ Recognize normal and abnormal: <ul style="list-style-type: none"> ○ physical and psychosocial assessment findings ○ developmental assessment findings and provide developmentally appropriate care
<ul style="list-style-type: none"> ▪ Recognize the need for and manage patients requiring restraints
<ul style="list-style-type: none"> ▪ Recognize indications for and manage patients requiring behavioral therapeutic interventions
<ul style="list-style-type: none"> ▪ Identify and monitor normal and abnormal diagnostic test results
<ul style="list-style-type: none"> ▪ Manage patients receiving medications (e.g., antipsychotics, antidepressants) and monitor response
<ul style="list-style-type: none"> ▪ Recognize signs and symptoms of behavioral/psychosocial emergencies, initiate interventions, and seek assistance as needed