ADULT CCRN TEST PLAN

I. CLINICAL JUDGMENT (80%)

A. Cardiovascular (20%)
1. Acute coronary syndromes (including unstable angina)
2. Acute myocardial infarction/ischemia (including papillary muscle rupture)
3. Acute peripheral vascular insufficiency (e.g., acute arterial occlusion, carotid artery stenosis, endartectomy, peripheral stents, Fem-Pop bypass)
4. Acute pulmonary edema
5. Cardiac surgery (e.g., valve replacement, CABG)
6. Cardiac trauma
7. Cardiogenic shock
8. Cardiomyopathies (e.g., hypertrophic, dilated, restrictive, idiopathic)
9. Dysrhythmias
10. Heart failure
11. Hypertensive crisis
12. Hypovolemic shock
13. Interventional cardiology (e.g., catheterization)
14. Myocardial conduction system defects
15. Ruptured or dissecting aneurysm (e.g., thoracic, abdominal, thoraco-abdominal)
16. 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, bronchitis)
5. Air leak syndromes (e.g., pneumothorax, pneumopericardium)
6. Aspirations (e.g., aspiration pneumonia, foreign body)
7. COPD, asthma, chronic bronchitis, emphysema
8. Pulmonary hypertension
9. Status asthmaticus
10. Thoracic surgery
11. Thoracic trauma (e.g., fractured ribs, lung contusions, tracheal perforation)

C. Endocrine (5%)
1. Acute hypoglycemia
2. Diabetes insipidus
3. Diabetic ketoacidosis
4. Hyperglycemic hyperosmolar nonketototic syndrome (HHNK)
5. Syndrome of inappropriate secretion of antidiuretic hormone (SIADH)

D. Hematology/Immunology (2%)
1. Coagulopathies (e.g., ITP, DIC, HIT)

E. Neurology (12%)
1. Aneurysm
2. Brain death (irreversible cessation of whole brain function)
3. Congenital neurological abnormalities (e.g., 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., viral, bacterial)
9. Neuromuscular disorders (e.g., muscular dystrophy, Guillain-Barré, myasthenia gravis)
10. Neurosurgery
11. Seizure disorders
12. Space-occupying lesions (e.g., brain tumors)
13. Stroke (e.g., ischemic, hemorrhagic)

Continued
ADULT CCRN TEST PLAN (CONTINUED)

F. Gastrointestinal (6%)
   1. Acute abdominal trauma
   2. Acute GI hemorrhage
   3. Bowel infarction obstruction/perforation (e.g., mesenteric ischemia, adhesions)
   4. GI surgeries
   5. Hepatic failure/coma (e.g., portal hypertension, cirrhosis, esophageal varices)
   6. Malnutrition and malabsorption
   7. Pancreatitis

G. Renal (6%)
   1. Acute renal failure
   2. Chronic renal failure
   3. Life-threatening electrolyte imbalances

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

I. Behavioral/Psychosocial (4%)
   1. Abuse/neglect
   2. Antisocial behaviors, aggression, violence
   3. Delirium and dementia
   4. Developmental delays
   5. Failure to thrive
   6. Mood disorders and depression
   7. Substance dependence (e.g., withdrawal, drug-seeking behavior, chronic alcohol or drug dependence)
   8. Suicidal behavior

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%)

The sum of these percentages is not 100 due to rounding.

Order of content does not necessarily reflect importance.
ADULT CCRN TESTABLE NURSING ACTIONS

Cardiovascular
• Identify/monitor normal and abnormal physical assessment findings
• Apply leads for cardiac monitoring
• Identify, interpret and monitor cardiac rhythms
• Monitor hemodynamic status and recognize signs and symptoms of hemodynamic instability
• Recognize indications for and manage patients requiring:
  * 12-lead ECG
  * arterial line
  * cardiac catheterization
  * cardiocentesis
  * cardioversion
  * central venous access
  * central venous pressure monitoring
  * defibrillation
  * PA catheter
  * SvO₂ monitoring
  * transesophageal pacing
  * transvenous pacing
• Manage patients receiving cardiovascular medications (e.g., thrombolytics, vasoactive agents, platelet inhibitors, anti-arrhythmic medications)
• Monitor patients and follow protocols for cardiac surgery
• Recognize signs and symptoms of cardiovascular emergencies, initiate interventions and seek assistance as needed
• Recognize indications for and manage patients requiring:
  * IABP
  * percutaneous coronary interventions

Pulmonary
• Identify and monitor normal and abnormal physical assessment findings
• Interpret ABGs
• Monitor patient for response to pulmonary medications (e.g., bronchodilators, mucolytics)
• Recognize indications for and manage patients requiring:
  * 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
• Recognize signs and symptoms of respiratory emergencies, initiate interventions and seek assistance as needed
• Monitor patient and follow protocols for thoracic and ENT surgery

continued
ADULT CCRN TESTABLE NURSING ACTIONS (CONTINUED)

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 patients 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
- Recognize indications for and manage patients requiring gastrointestinal:
  * monitoring devices (e.g., intra-abdominal compartment pressure)
  * drains
- Manage patients receiving gastrointestinal medications and monitor response
- Monitor patient and follow protocols, pre-, intra- and post-procedure (e.g., EGD, PEG placement)
- Recognize indications for and complications of enteral and parenteral nutrition
- Monitor patients and follow protocols for gastrointestinal surgery
- Recognize signs and symptoms of emergencies (e.g., GI bleed, ischemic bowel), initiate interventions and seek assistance as needed

continued
ADULT CCRN TESTABLE NURSING ACTIONS (CONTINUED)

Renal
- Recognize normal and abnormal physical assessment findings
- Identify and monitor normal and abnormal diagnostic test results
- Manage patients receiving renal medications and monitor response
- Recognize indications for and manage patients requiring renal therapeutic intervention (e.g., CRRT, peritoneal dialysis)
- Monitor patients and follow protocols for:
  - renal surgery
  - pre-, intra- and post-procedure (e.g., renal biopsy, ultrasound)
- Recognize signs and symptoms of renal emergencies, initiate interventions and seek assistance as needed

Multisystem
- Recognize and monitor normal and abnormal diagnostic test results (e.g., lab, radiology)
- Recognize indications for and manage patients undergoing:
  - continuous sedation
  - procedural sedation
  - therapeutic hypothermia
- Assess patient's pain
- Manage patients receiving:
  - medications (e.g., pain medications, reversal agents) and monitor response
  - non-pharmacologic methods for pain relief and monitor response
- Recognize signs and symptoms of multisystem emergencies (e.g., shock states, trauma), initiate interventions and seek assistance as needed

Behavioral/Psychosocial
- Recognize normal and abnormal:
  - physical and psychosocial assessment findings
  - developmental assessment findings and provide developmentally appropriate care
- Recognize the need for and manage patients requiring restraints
- Recognize indications for and manage patients requiring behavioral therapeutic interventions
- Identify and monitor normal and abnormal diagnostic test results
- Manage patients receiving medications (e.g., antipsychotics, antidepressants) and monitor response
- Recognize signs and symptoms of behavioral/psychosocial emergencies, initiate interventions and seek assistance as needed