

CRITICAL CARE MEDICINE

Certification Examination (CERT)



High Relevance: Topics are very likely to appear on the assessment.

Medium Relevance: Topics are moderately likely to appear on the assessment.

Low Relevance: Topics will not appear on the assessment.

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
1 Shock	15%				
1.1 Cardiogenic shock	4%	HIGH	HIGH	HIGH	HIGH
1.1.1 Medical management					
1.1.2 Mechanical support					
1.2 Distributive shock	5%	HIGH	HIGH	HIGH	HIGH
1.2.1 Septic shock					
1.2.2 Anaphalactic shock					
1.2.3 Neurogenic shock					
1.3 Hypovolemic shock	3%	HIGH	HIGH	HIGH	HIGH
1.3.1 Hemorrhagic shock					
1.3.2 Non-hemorrhagic shock					
1.4 Obstructive shock	3%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
1.4.1 Cardiac tamponade					
1.4.2 Pneumothorax					
1.4.3 Pulmonary embolism					
2 Renal, Endocrine, and Metabolic Disorders	13%				
2.1 Sodium-water balance	<2%	HIGH	HIGH	MEDIUM	MEDIUM
2.1.1 Hyponatremia					
2.1.1.1 Syndrome of inappropriate antidiuretic hormone secretion					
2.1.1.2 Cerebral salt wasting					
2.1.1.3 Psychogenic polydipsia					
2.1.1.4 Hypothyroidism					
2.1.1.5 Iatrogenic					
2.1.1.6 Exercise-induced					
2.1.2 Hypernatremia					
2.1.2.1 Central diabetes insipidus					
2.1.2.2 Nephrogenic diabetes insipidus					
2.1.2.3 Osmotic diuresis					
2.1.2.4 Primary hypodipsia					
2.1.2.5 Dehydration					
2.1.2.6 Gastrointestinal fluid losses					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
2.1.3 Hypervolemia					
2.1.4 Hypovolemia					
2.2 Potassium disorders	<2%	HIGH	HIGH	MEDIUM	MEDIUM
2.2.1 Hyperkalemia					
2.2.1.1 Pseudohyperkalemia					
2.2.1.2 Drug-induced					
2.2.1.3 Adrenal insufficiency					
2.2.2 Hypokalemia					
2.2.2.1 Vomiting					
2.2.2.2 Diarrhea					
2.2.2.3 Renal losses					
2.3 Acid-base disorders	3%	HIGH	HIGH	HIGH	HIGH
2.3.1 Metabolic acidosis					
2.3.1.1 Increased anion gap					
2.3.1.2 Normal anion gap					
2.3.1.3 Decreased anion gap in multiple myeloma					
2.3.2 Metabolic alkalosis					
2.3.2.1 Diuretic-induced (contraction alkalosis)					
2.3.2.2 Other metabolic alkalosis topics (parenteral nutrition-induced, complications of citrate anticoagulation)					
2.3.3 Mixed acid-base disorders					
2.3.4 Respiratory acidosis					
2.3.5 Respiratory alkalosis					
2.4 Acute kidney injury	3%	HIGH	HIGH	HIGH	MEDIUM
2.4.1 Pre-renal disease					
2.4.2 Intrinsic disease					
2.4.2.1 Glomerulonephritis					
2.4.2.2 Interstitial nephritis					
2.4.2.3 Acute tubular necrosis					
2.4.3 Renal replacement therapy					
2.5 Metabolic abnormalities of toxic ingestions	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.5.1 High osmolar gap					
2.5.1.1 Ethanol					
2.5.1.2 Methanol					
2.5.1.3 Isopropyl alcohol					
2.5.1.4 Ethylene glycol					
2.5.1.5 Propylene glycol					
2.5.2 Normal osmolar gap					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
2.5.2.1 Salicylates					
2.6 Calcium, phosphate, and magnesium disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.6.1 Hyperphosphatemia					
2.6.2 Hypophosphatemia					
2.6.3 Hypercalcemia					
2.6.4 Hypocalcemia					
2.6.5 Hypermagnesemia					
2.6.6 Hypomagnesemia					
2.7 Hyperammonemia	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.8 Hyperglycemia	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.9 Hypoglycemia	<2%	HIGH	HIGH	MEDIUM	MEDIUM
2.9.1 Hypothyroidism					
2.9.2 Hyperthyroidism					
2.10 Thyroid disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.10.1 Thyroid storm					
2.10.2 Myxedema coma					
2.11 Adrenal disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
2.11.1 Adrenal insufficiency					
2.11.1.1 Relative adrenal insufficiency in critical illness					
2.11.2 Adrenal excess					
2.12 Pituitary disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
3 Cardiovascular Disorders	13%				
3.1 Coronary artery disease	2%	HIGH	HIGH	MEDIUM	MEDIUM
3.1.1 Non-ST-segment elevation myocardial infarction (NSTEMI)					
3.1.2 ST-segment-elevation myocardial infarction (STEMI)					
3.1.3 Complications of ischemia (arrythmia, valvular rupture, free wall rupture)					
3.1.4 Demand/ischemia/non-coronary chest pain					
3.2 Rhythm and conduction abnormalities	2.5%	HIGH	HIGH	MEDIUM	MEDIUM
3.2.1 Atrial					
3.2.2 Atrial fibrillation/ flutter					
3.2.3 SVT					
3.2.4 Ventricular					
3.2.4.1 Ventricular tachycardia					
3.2.4.2 Ventricular fibrillation					
3.2.4.3 Long QT syndrome					
3.2.5 Conduction abnormalities					
3.2.6 Bradycardias					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
3.2.7 Implanted cardiac rhythm devices					
3.2.8 AICDs					
3.2.9 Pacemakers					
3.3 Heart failure	2.5%	HIGH	HIGH	MEDIUM	MEDIUM
3.3.1 Heart failure with reduced ejection fraction (HFrEF)					
3.3.1.1 Peripartum cardiomyopathy					
3.3.1.2 Stress cardiomyopathy					
3.3.2 Heart failure with preserved ejection fraction (HFpEF)					
3.3.3 Right ventricular failure and PH					
3.4 Hemodynamic monitoring	3%	HIGH	HIGH	MEDIUM	LOW
3.4.1 Interpretation of arterial catheterization					
3.4.2 Pulmonary arterial catheterization					
3.4.3 Central venous catheterization					
3.4.4 Non-invasive hemodynamic monitoring					
3.5 Vascular diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
3.5.1 Aortic dissection and aneurysm					
3.5.2 Hypertension					
3.6 Structural and valvular heart disease	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
3.6.1 Aortic					
3.6.2 Mitral					
3.6.3 Tricuspid					
3.6.4 Pulmononic					
3.7 Pericardial diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
3.8 Myocardial diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
3.8.1 Myocarditis					
3.8.2 Hypertrophic cardiomyopathy					
3.9 Mechanical circulatory support	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
4 Pulmonary Disease	17%				
4.1 Respiratory failure	2.5%	HIGH	HIGH	HIGH	HIGH
4.1.1 Hypoxemic					
4.1.2 Hypercapnic					
4.2 Mechanical ventilation	6%	HIGH	HIGH	HIGH	HIGH
4.2.1 Initiation and maintenance of mechanical ventilation					
4.2.1.1 Endotracheal intubation and tracheostomy					
4.2.1.2 Modes					
4.2.1.3 Oxygenation					
4.2.1.4 Ventilation (CO2)					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
4.2.1.5 Waveforms					
4.2.2 Complications of mechanical ventilation					
4.2.2.1 Bronchopleural fistula					
4.2.2.2 Ventilator-induced lung injury					
4.2.2.4 Dynamic hyperinflation (auto-PEEP)					
4.2.2.5 Intracardiac shunt					
4.2.2.6 Complications of endotracheal tubes and tracheostomy					
4.2.3 Liberation from mechanical ventilation					
4.2.4 Noninvasive ventilation					
4.3 Airway disease	2%	HIGH	HIGH	HIGH	MEDIUM
4.3.1 Upper airway disease					
4.3.1.1 Upper airway obstruction					
4.3.1.2 Tracheoesophageal fistula					
4.3.1.3 Airway management					
4.3.2 Asthma					
4.3.3 Chronic obstructive pulmonary disease (COPD)					
4.4 Parenchymal lung disease	3%	HIGH	HIGH	MEDIUM	MEDIUM
4.4.1 Acute respiratory distress syndrome (ARDS)					
4.4.2 Pneumonia					
4.4.2.1 Community-acquired pneumonia (CAP)					
4.4.2.2 Hospital-acquired pneumonias					
4.4.3 Noncardiogenic pulmonary edema					
4.4.3.1 Neurogenic					
4.4.3.2 Tocolytic					
4.4.3.3 Negative-pressure					
4.4.3.4 High-altitude					
4.4.4 Interstitial lung disease					
4.4.5 Diffuse alveolar hemorrhage					
4.4.6 Atelectasis					
4.5 Pulmonary vascular disorders	2%	HIGH	HIGH	MEDIUM	MEDIUM
4.5.1 Pulmonary thromboembolism					
4.5.1.1 Deep venous thrombosis (DVT)					
4.5.1.2 Pulmonary embolism (PE)					
4.5.2 Nonthrombotic embolism					
4.5.2.1 Air					
4.5.2.2 Tumor					
4.5.2.3 Septic					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
4.5.3 Pulmonary hypertension					
4.5.4 Acute chest syndrome in sickle cell disease					
4.5.5 Pulmonary vasculitis					
4.6 Hemoptysis	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
4.6.1 Massive					
4.6.2 Submassive					
4.7 Pleural disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
4.7.1 Pleural effusion					
4.7.1.1 Infectious (empyema)					
4.7.1.2 Noninfectious					
4.7.2 Pneumothorax					
4.7.3 Hemothorax					
5 Infectious Disease	10%				
5.1 Systemic infections	<2%	HIGH	HIGH	HIGH	MEDIUM
5.1.1 Sepsis and septic shock					
5.1.2 Bacterial infections (typical and atypical)					
5.1.2.1 Tuberculosis					
5.1.2.2 Atypical mycobacterial infections					
5.1.2.3 Plague					
5.1.2.4 Rickettsial or Rickettsial-like infections					
5.1.2.5 Spirochetal infections					
5.1.3 Fungal infections					
5.1.4 Viral infections					
5.1.5 Parasitic diseases					
5.1.5.1 Malaria					
5.1.5.2 Babesiosis					
5.1.5.3 Strongyloides hyperinfection syndrome					
5.2 Central nervous system infections	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.2.1 Meningitis					
5.2.1.1 Bacterial					
5.2.1.2 Fungal					
5.2.1.3 Mycobacterial					
5.2.2 Encephalitis					
5.2.2.1 Viral					
5.2.2.2 Parasitic					
5.2.3 Brain abscess					
5.2.4 Epidural abscess					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
5.3 Head, neck, and upper airway infections	<2%	HIGH	HIGH	MEDIUM	MEDIUM
5.3.1 Eye and orbit					
5.3.2 Septic cavernous sinus thrombosis					
5.3.3 Soft tissue infections of the head and neck					
5.3.4 Sinusitis					
5.3.5 Epiglottitis					
5.4 Cardiovascular infections	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.4.1 Pericarditis					
5.4.2 Endocarditis					
5.4.3 Device-related infections					
5.4.4 Catheter-related infections (peripheral, central venous, arterial, pulmonary artery)					
5.5 Gastrointestinal, hepatobiliary, and intra-abdominal infections	<2%	HIGH	HIGH	MEDIUM	MEDIUM
5.5.1 Esophageal					
5.5.2 Liver					
5.5.3 Gallbladder and biliary					
5.5.4 Pancreatitis					
5.5.4.1 Necrotizing (infected)					
5.5.4.2 Pancreatic abscess					
5.5.5 Acute lower gastrointestinal infections					
5.5.5.1 Acute gastroenteritis and colitis					
5.5.5.2 Clostridioides difficile infection					
5.5.5.3 Diverticulitis					
5.5.6 Parasitic					
5.5.7 Necrotizing enterocolitis (typhlitis)					
5.5.8 Cytomegalovirus colitis					
5.5.9 Peritonitis					
5.5.10 Small intestine and appendix					
5.6 Genitourinary tract infections	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.6.1 Cystitis, including catheter-related					
5.6.2 Pyelonephritis					
5.6.3 Perinephric abscess					
5.7 Bone and joint infections	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.7.1 Bites					
5.7.2 Septic arthritis					
5.8 Catheter- and device-associated infections	<2%	HIGH	HIGH	HIGH	MEDIUM
5.9 Antimicrobial therapy and resistance	<2%	HIGH	HIGH	HIGH	MEDIUM
5.9.1 Nonallergic toxicity					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
5.9.2 Allergic reactions					
5.9.3 Resistant organisms					
5.9.3.1 Gram-positive organisms					
5.9.3.2 Gram-negative organisms					
5.9.3.3 Fungi and inherent susceptibility patterns and resistance					
5.10 Antimicrobial pharmacokinetics and pharmacodynamics	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.11 Infections in immunocompromised hosts	<2%	HIGH	HIGH	HIGH	MEDIUM
5.11.1 Opportunistic infections in human immunodeficiency virus					
5.11.2 Neutropenia					
5.11.3 Transplantation					
5.11.3.1 Solid organ					
5.11.3.2 Hematopoietic cell					
5.11.4 Asplenia					
5.11.5 Corticosteroid immunosuppression					
5.12 Skin and soft tissue infections	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
5.12.1 Toxic shock					
5.12.2 Necrotizing fasciitis					
5.13 Bioterrorism	<2%	MEDIUM	MEDIUM	MEDIUM	LOW
5.14 Infection prevention and antimicrobial stewardship	<2%	HIGH	HIGH	MEDIUM	LOW
6 Gastrointestinal Disorders	5%				
6.1 Esophagus disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
6.1.1 Corrosive injury					
6.1.2 Perforation and rupture					
6.1.3 Fistula					
6.2 Stomach disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
6.2.1 Peptic ulcer disease					
6.2.2 Non-peptic ulcer disease					
6.2.3 Perforation					
6.2.4 Mechanical disorders					
6.3 Small intestine disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
6.3.1 Perforation					
6.3.2 Mechanical and motility disorders					
6.4 Large intestine disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
6.4.1 Perforation					
6.4.2 Mechanical and motility disorders					
6.4.3 Colonic ischemia					
6.5 Hepatobiliary disorders	2%	HIGH	MEDIUM	MEDIUM	MEDIUM

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
6.5.1 Hepatitis					
6.5.1.1 Autoimmune					
6.5.1.2 Alcohol- and drug-induced					
6.5.1.3 Toxin and solvent exposure					
6.5.1.4 Ischemic (shock liver)					
6.5.1.5 Budd-Chiari syndrome					
6.5.2 Portal hypertension					
6.5.2.1 Esophageal variceal hemorrhage					
6.5.2.2 Gastric variceal hemorrhage					
6.5.2.3 Hepatorenal syndrome					
6.5.2.4 Hepatopulmonary syndrome					
6.5.2.5 Portopulmonary hypertension					
6.5.3 Fulminant hepatic failure					
6.5.3.1 Infection					
6.5.3.2 Alcohol- and drug-induced					
6.5.3.3 Tumor					
6.5.3.4 Infiltrative diseases and nonalcoholic steatohepatitis (NASH)					
6.5.3.5 Toxin exposure					
6.5.3.6 Encephalopathy					
6.5.3.7 Cerebral edema					
6.5.3.8 Hypotension					
6.6 Pancreas	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
6.6.1 Pancreatitis					
6.6.1.1 Gallbladder disease					
6.6.1.2 Tumor					
6.6.1.3 Alcohol- and drug-induced					
6.6.1.4 Toxin exposure					
6.6.1.5 Hypertriglyceridemia-induced					
6.6.1.6 Complications					
7 Neurologic Disorders	9%				
7.1 Brain death/death by neurologic criteria (physiology)	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.2 Cerebrovascular disease	3%	HIGH	HIGH	HIGH	MEDIUM
7.2.1 Ischemic stroke					
7.2.2 Intracerebral hemorrhage					
7.2.3 Reversible cerebral vasoconstriction syndrome					
7.2.4 Posterior reversible encephalopathy syndrome					
7.2.5 Subarachnoid hemorrhage and aneurysm					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
7.2.6 Cerebral vein and sinus thrombosis					
7.3 Seizures and status epilepticus	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.3.1 Seizures complicating critical illness					
7.3.2 Status epilepticus					
7.4 Neuromuscular diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.4.1 Guillain-Barre syndrome					
7.4.2 Critical illness myopathy					
7.4.3 Critical illness polyneuropathy					
7.4.4 Tetanus					
7.4.5 Myasthenia gravis					
7.4.6 Botulism					
7.4.7 Tick paralysis					
7.5 Intracranial hypertension	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.6 Head trauma	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.6.1 Paroxysmal sympathetic hyperactivity syndrome					
7.7 Spinal cord injury	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
7.7.1 Autonomic dysreflexia					
7.7.2 Spinal shock					
7.8 Coma, encephalopathy, and delirium	<2%	HIGH	HIGH	HIGH	HIGH
7.8.1 Anoxic/hypoxic brain injury					
7.8.2 Metabolic encephalopathy					
7.8.3 Drug-induced encephalopathy					
7.8.3.1 CAR T-cell-associated neurotoxicity					
7.8.3.2 Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS)					
7.8.4 Drug and alcohol withdrawal					
7.8.5 ICU-related delirium					
7.8.6 Targeted temperature control					
7.9 Analgesia, sedation, and neuromuscular junction blockade	<2%	HIGH	HIGH	HIGH	HIGH
7.9.1 Analgesia					
7.9.2 Sedation					
7.9.3 Neuromuscular junction blockade					
8 Hematologic and Oncologic Disorders	5%				
8.1 Red blood cell diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.1.1 Anemias					
8.1.2 Polycythemias					
8.1.3 Hemoglobinopathies					
8.2 White blood cell diseases	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
8.2.1 Leukopenia (immune, drug-related)					
8.2.2 Hematologic malignancy					
8.2.3 Leukemias					
8.2.4 Lymphoma					
8.2.5 Multiple myeloma					
8.3 Platelet disorders	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.3.1 Thrombocytosis					
8.3.2 Thrombocytopenia					
8.3.3 Platelet dysfunction					
8.4 Coagulopathies	<2%	HIGH	HIGH	MEDIUM	MEDIUM
8.4.1 Disseminated intravascular coagulation (DIC)					
8.4.2 Factor deficiencies					
8.4.3 Anticoagulant-associated coagulopathy					
8.4.4 Hypothermia					
8.5 Hypercoagulable states	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.5.1 Proteins C and S, and antithrombin deficiency					
8.5.2 Factor V Leiden mutation					
8.5.3 Malignancy					
8.5.4 Hormone replacement therapy and oral contraceptives					
8.5.5 Antiphospholipid antibody syndrome					
8.6 Transfusion medicine	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.6.1 Blood products					
8.6.2 Apheresis					
8.6.3 Adverse effects of transfusion					
8.7 Solid tumors	<2%	MEDIUM	MEDIUM	MEDIUM	LOW
8.8 Oncologic syndromes	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.8.1 Superior vena cava syndrome					
8.8.2 Tumor lysis syndrome					
8.8.3 Spinal cord compression					
8.8.4 Hyperviscosity syndrome					
8.9 Hematopoietic cell transplantation	<2%	LOW	MEDIUM	LOW	LOW
8.9.1 Thrombotic microangiopathy					
8.9.2 Hepatic sinusoidal obstruction syndrome (veno-occlusive disease)					
8.9.3 Respiratory distress					
8.10 Complications of immunosuppressive drugs and chemotherapy	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
8.10.1 Corticosteroids					
8.10.2 Cytokine release syndrome					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
8.10.3 Non-steroid immunosuppressants					
8.10.4 CAR-T and iCan					
9 Surgical Specialties	5%				
9.1 Cardiovascular and vascular surgery	<2%	HIGH	HIGH	MEDIUM	MEDIUM
9.2 Abdominal and gastrointestinal	<2%	HIGH	HIGH	MEDIUM	MEDIUM
9.2.1 Acute abdomen					
9.2.2 Postoperative complications					
9.2.3 Mesenteric ischemia and ischemic colitis					
9.2.4 Abdominal compartment syndrome					
9.3 Genitourinary and obstetric emergencies	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
9.3.1 Urologic					
9.3.2 Obstetric and gynecologic					
9.3.3 Complications of pregnancy					
9.3.4 Physiological changes of pregnancy					
9.3.5 Acute compartment syndrome					
9.4 Environmental injury	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
9.4.1 Inhalation injury					
9.4.2 Hypothermia					
9.4.3 Submersion injury, near-drowning, and diving trauma					
9.4.4 Altitude injury					
9.4.5 Electrical injury and lightning strike					
9.4.6 Radiation injury					
9.4.7 Bioterrorism, noninfectious					
9.4.8 Heatstroke					
9.4.9 Burn injury					
9.5 General postoperative management	<2%	MEDIUM	MEDIUM	MEDIUM	LOW
9.6 Trauma	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
9.6.1 Flail chest					
9.6.2 Pulmonary contusion					
9.6.3 Hemothorax					
9.6.4 Great vessel injury					
9.6.5 Airway injury, tracheobronchial laceration and rupture					
9.6.6 Foreign body aspiration					
9.6.7 Blunt myocardial injury					
9.6.8 Fat embolism syndrome					
9.6.9 Intra-abdominal injury					
9.7 Solid organ transplantation	<2%	MEDIUM	MEDIUM	LOW	LOW

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
9.7.1 Heart					
9.7.2 Lung					
9.7.3 Liver					
9.7.4 Kidney					
9.7.5 Pancreas and intestines					
9.7.6 Organ donation					
9.7.6.1 Donation after Cardiac Death (DCD)					
9.7.6.2 Normothermic regional perfusion					
9.7.7 Bone marrow					
9.7.8 Stem cell					
10 Pharmacology and Toxicology	5%				
10.1 Basic pharmacologic principles	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
10.1.1 Pharmacokinetics					
10.1.2 Dosing adjustments for disease states					
10.2 Drug-drug interactions	<2%	MEDIUM	HIGH	MEDIUM	MEDIUM
10.3 Adverse effects of drugs	<2%	MEDIUM	MEDIUM	MEDIUM	MEDIUM
10.3.1 Immunologic adverse drug reactions					
10.3.1.1 Anaphylaxis					
10.3.1.2 Thrombotic thrombocytopenic purpura					
10.3.1.3 Stevens-Johnson syndrome					
10.3.2 Nonimmunologic adverse effects of drugs					
10.3.2.1 Electrolyte and metabolic					
10.3.2.2 Hyperthermia					
10.3.2.3 Neurologic					
10.3.2.4 Renal					
10.3.2.5 Hematologic					
10.3.2.6 Cardiac					
10.3.2.7 Pulmonary					
10.4 Toxicology, drug overdose, and poisoning	<2%	HIGH	HIGH	MEDIUM	MEDIUM
10.4.1 Acetaminophen					
10.4.2 Beta-adrenergic blockers					
10.4.3 Calcium channel blockers					
10.4.4 Cyanide					
10.4.5 Tricyclic antidepressants					
10.4.6 Antihyperglycemic medications					
10.4.7 Organophosphates					
10.4.8 Salicylates					

Blueprint Code and Topic	Assessment Percentage	Diagnosis/ Testing 40%	Treatment/ Care Decisions 50%	RiskAssessment /Prognosis /Epidemiology 5%	Pathophysiology /Basic Science 5%
10.4.9 Selective serotonin reuptake inhibitors (SSRIs)					
10.4.10 Psychotropic drugs					
10.4.11 Xanthines					
10.4.12 Iron toxicity					
10.4.13 Antibiotic toxicity					
10.4.14 Carbon monoxide					
10.4.15 Methemoglobinemia					
10.4.16 Toxic alcohols					
11 Research, Administration, and Ethics	1%				
11.1 Intensive care unit (ICU) administration		LOW	HIGH	MEDIUM	LOW
11.1.1 Regulatory and finance issues					
11.1.2 Continuous quality improvement and patient safety					
11.2 Ethical considerations		LOW	HIGH	HIGH	LOW
11.2.1 Patient autonomy					
11.2.2 Legal surrogates					
11.2.3 Informed consent for medical procedures					
11.3 Ethics of brain death		LOW	MEDIUM	MEDIUM	LOW
11.4 Withholding or withdrawing life-sustaining therapies		LOW	HIGH	HIGH	LOW
11.5 Advanced care planning		LOW	HIGH	MEDIUM	LOW
11.6 Patient confidentiality and Health Insurance Portability and Accountability Act (HIPAA) regulations		LOW	MEDIUM	MEDIUM	LOW
11.7 Organ donation		MEDIUM	MEDIUM	MEDIUM	LOW
11.8 Medically nonbeneficial treatments		LOW	MEDIUM	MEDIUM	LOW
11.9 Medical research		MEDIUM	MEDIUM	LOW	LOW
11.9.1 Statistical analysis					
11.9.2 Institutional review boards					
11.10 Patient safety and quality improvement		MEDIUM	HIGH	MEDIUM	LOW
12 Critical Care Ultrasound Scanning	2%				
12.1 Cardiac		HIGH	HIGH	MEDIUM	LOW
12.2 Pulmonary		HIGH	HIGH	MEDIUM	LOW
12.3 Abdominal		MEDIUM	MEDIUM	MEDIUM	LOW
12.4 Vascular		MEDIUM	MEDIUM	MEDIUM	LOW