**Purpose of the exam**

The exam is designed to evaluate the knowledge, diagnostic reasoning, and clinical judgment skills expected of the certified critical care medicine specialist in the broad domain of the discipline. The ability to make appropriate diagnostic and management decisions that have important consequences for patients will be assessed. The exam may require recognition of common as well as rare clinical problems for which patients may consult a certified critical care medicine specialist.

**Exam content**

Exam content is determined by a pre-established blueprint, or table of specifications. The blueprint is developed by the ABIM and is reviewed annually and updated as needed for currency. Trainees, training program directors, and certified practitioners in the discipline are surveyed periodically to provide feedback and inform the blueprinting process.

The primary medical content categories of the blueprint are shown below, with the percentage assigned to each for a typical exam:

<table>
<thead>
<tr>
<th>Medical Content Category</th>
<th>% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal, Endocrine, and Metabolic Disorders</td>
<td>15.0%</td>
</tr>
<tr>
<td>Cardiovascular Disorders</td>
<td>17.5%</td>
</tr>
<tr>
<td>Pulmonary Disease</td>
<td>20.0%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>12.0%</td>
</tr>
<tr>
<td>Gastrointestinal Disorders</td>
<td>5.0%</td>
</tr>
<tr>
<td>Neurologic Disorders</td>
<td>9.5%</td>
</tr>
<tr>
<td>Hematologic and Oncologic Disorders</td>
<td>5.5%</td>
</tr>
<tr>
<td>Surgery, Trauma, and Transplantation</td>
<td>7.0%</td>
</tr>
<tr>
<td>Pharmacology and Toxicology</td>
<td>4.5%</td>
</tr>
<tr>
<td>Research, Administration, and Ethics</td>
<td>2.0%</td>
</tr>
<tr>
<td>Critical Care Ultrasound Scanning</td>
<td>2.0%</td>
</tr>
</tbody>
</table>
Exam questions in the content areas above may also address clinical topics in general internal medicine that are relevant to the practice of critical care medicine (including some general pediatrics with an emphasis on adolescent medicine).

**ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.**

**Exam format**

The exam is composed of up to 240 single-best-answer multiple-choice questions, of which approximately 40 are new questions that do not count in the examinee’s score. Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- Making a diagnosis
- Ordering and interpreting results of tests
- Recommending treatment or other patient care
- Assessing risk, determining prognosis, and applying principles from epidemiologic studies
- Understanding the underlying pathophysiology of disease and basic science knowledge applicable to patient care

Clinical information presented may include various media illustrating relevant findings, such as diagnostic imaging studies. Some questions require interpretation of pictorial material, such as pressure tracings, ultrasound scans, magnetic resonance imaging scans, electrocardiograms, radiographs, computed tomograms, radionuclide scans, and photomicrographs. Learn more information on how exams are developed.

A tutorial including examples of ABIM exam question format can be found at http://www.abim.org/certification/exam-information/critical-care-medicine/exam-tutorial.

The blueprint can be expanded for additional detail as shown below. Each of the medical content categories is listed there, and below each major category are the content subsections and specific topics that may appear in the exam. Please note: actual exam content may vary.
Renal, Endocrine, and Metabolic Disorders

15% of Exam

**Sodium-water balance**

- Hyponatremia
  - Syndrome of inappropriate antidiuretic hormone secretion
  - Cerebral salt wasting
  - Psychogenic polydipsia
  - Hypothyroidism
  - Iatrogenic
  - Exercise-induced

- Hypernatremia
  - Central diabetes insipidus
  - Nephrogenic diabetes insipidus
  - Osmotic diuresis
  - Primary hypodipsia
  - Dehydration
  - Gastrointestinal fluid losses

- Hypervolemia
- Hypovolemia

**Potassium disorders**

- Hyperkalemia
  - Pseudohyperkalemia
  - Drug-induced
  - Adrenal insufficiency

- Hypokalemia
  - Vomiting
  - Diarrhea
  - Renal losses
    - Drug-induced

**Acid-base disorders**

- Metabolic acidosis
  - Increased anion gap
    - Lactic acidosis
    - Ketoacidosis
    - Hypoalbuminemia

- Normal anion gap
  - Diarrhea
  - Saline resuscitation-associated
  - Drug-induced
  - Decreased anion gap in multiple myeloma
Metabolic alkalosis
   Diuretic-induced (contraction alkalosis)
   Other metabolic alkalosis topics (parenteral…nutrition–induced, complications of citrate anticoagulation)
Mixed acid-base disorders
Respiratory acidosis
Respiratory alkalosis

**Toxic ingestions**

<2%

High osmolar gap
   Ethanol
   Methanol
   Isopropyl alcohol
   Ethylene glycol
   Propylene glycol

Normal osmolar gap
   Salicylates

**Calcium, phosphate, and magnesium disorders**

<2%

Hyperphosphatemia
   Hypophosphatemia
   Hypercalcemia
   Hypocalcemia
   Hypermagnesemia
   Hypomagnesemia

**Hyperammonemia**

<2%

**Diabetes mellitus (excluding diabetic ketoacidosis)**

<2%

and energy metabolism
   Hyperglycemic hyperosmolar state
   Hyperglycemia
   Hypoglycemia

**Thyroid disorders**

<2%

Hypothyroidism
   Hyperthyroidism
   Nonthyroidal illness syndrome

**Parathyroid disorders**

<2%

**Adrenal disorders**

<2%

   Adrenal insufficiency
      Relative adrenal insufficiency in critical illness
   Adrenal excess
   Addison Disease
Pituitary disorders <2%
Tumor-related syndromes <2%
Acute kidney injury 2%
- Contrast-induced
- Pigment-induced
- Oncology-related
- Pre-renal disease
Intrinsic disease
  - Glomerulonephritis
  - Interstitial nephritis
  - Rhabdomyolysis
  - Acute tubular necrosis
Renal replacement therapy

<table>
<thead>
<tr>
<th>Cardiovascular Disorders</th>
<th>17.5% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute coronary syndromes</td>
<td>&lt;2%</td>
</tr>
</tbody>
</table>
  - Unstable angina pectoris and non-ST-segment elevation myocardial infarction (NSTEMI)
    - Unstable angina pectoris
    - NSTEMI
  - ST-segment elevation myocardial infarction (STEMI)
    - Diagnosis
    - Complications
      - Heart failure, cardiogenic shock
      - Ventricular septal defect
      - Acute mitral regurgitation
      - Ventricular wall rupture
      - Electrical conduction abnormalities
      - Right ventricular failure
      - Arrhythmias
    - Management of STEMI
  - Cocaine-related ischemia
| Arrhythmias | <2% |
  - Supraventricular tachycardia
  - Atrial fibrillation
  - Atrial flutter
  - Multifocal atrial tachycardia
  - Pre-excitation syndromes
Paroxysmal supraventricular tachycardia
(atrioventricular [AV] nodal reentrant tachycardia)

Ventricular arrhythmias
- Nonsustained ventricular tachycardia
- Monomorphic ventricular tachycardia
- Polymorphic ventricular tachycardia
- Ventricular fibrillation
- Accelerated idioventricular rhythm
- Long QT syndrome
- Brugada syndrome

Bradyarrhythmias
- Sinus bradycardia
- Sinoatrial exit block
- Atrioventricular block

Pacemakers and defibrillators

**Heart failure**
- 3.5%
  - Heart failure with reduced ejection fraction (HFrEF)
  - Heart failure with preserved ejection fraction (HFpEF)

**Hemodynamic monitoring**
- 5.5%
  - Interpretation of arterial catheterization
  - Pulmonary arterial catheterization
  - Central venous catheterization
  - Non-invasive hemodynamic monitoring

**Vascular disorders**
- <2%
  - Aortic dissection and aneurysm
    - Aortic dissection
    - Aortic aneurysm and transection
  - Shock
  - Hypertensive emergency and urgency

**Valvular heart disease**
- <2%
  - Mitral stenosis
  - Aortic stenosis
  - Aortic regurgitation
  - Mitral regurgitation
  - Endocarditis
  - Structural defects
    - Atrial
    - Ventricular
Pericardial disease
- Pericarditis
- Cardiac tamponade

Myocardial disease
- Myocarditis
- Hypertrophic cardiomyopathy
- Peripartum cardiomyopathy
- Stress cardiomyopathy

Mechanical circulatory support
- Intraaortic balloon pump (IABP) counterpulsation
- Extracorporeal membrane oxygenation (ECMO)
- Ventricular assist devices (VADs)

Transplanted heart

<table>
<thead>
<tr>
<th>Pulmonary Disease</th>
<th>20% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory failure</td>
<td>2%</td>
</tr>
<tr>
<td>Hypoxemic</td>
<td></td>
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<tr>
<td>Hypercapnic</td>
<td></td>
</tr>
<tr>
<td>Mechanical ventilation</td>
<td>6%</td>
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<tr>
<td>Initiation and maintenance of mechanical ventilation</td>
<td></td>
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<tr>
<td>Endotracheal intubation and tracheostomy</td>
<td></td>
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<tr>
<td>Modes</td>
<td></td>
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<tr>
<td>Oxygenation</td>
<td></td>
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<tr>
<td>Ventilation (CO₂)</td>
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<tr>
<td>Waveforms</td>
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<tr>
<td>Respiratory system compliance (lung mechanics)</td>
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<tr>
<td>Complications of mechanical ventilation</td>
<td></td>
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<tr>
<td>Barotrauma</td>
<td></td>
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<tr>
<td>Bronchopleural fistula</td>
<td></td>
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<tr>
<td>Ventilator-induced lung injury</td>
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<tr>
<td>Dynamic hyperinflation (auto-PEEP)</td>
<td></td>
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<tr>
<td>Intracardiac shunt</td>
<td></td>
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<tr>
<td>Complications of endotracheal tubes and tracheostomy</td>
<td></td>
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<tr>
<td>Liberation from mechanical ventilation</td>
<td></td>
</tr>
<tr>
<td>Noninvasive ventilation</td>
<td></td>
</tr>
<tr>
<td>Airway disease</td>
<td>2%</td>
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<tr>
<td>Upper airway disease</td>
<td></td>
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<tr>
<td>Upper airway obstruction</td>
<td></td>
</tr>
<tr>
<td>Tracheoesophageal fistula</td>
<td></td>
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</tbody>
</table>
Intubation-related laryngeal edema
Anaphylactic airway edema and increased
negative inspiratory pressure
Airway control
Asthma
Chronic obstructive pulmonary disease (COPD)

**Parenchymal lung disease**

Acute respiratory distress syndrome (ARDS)
Pneumonia
Community-acquired pneumonia (CAP)
  Typical bacterial
  Atypical bacterial
  Aspiration
  Viral
  Fungal
Hospital-acquired pneumonias and
immunocompromised hosts
  Ventilator-associated pneumonia (VAP)
  Hematogenous pneumonia
  Aspergillus pneumonia
  Non-Aspergillus pneumonia
  *Pneumocystis jirovecii* pneumonia
  Viral pneumonia
Noncardiogenic pulmonary edema
  Neurogenic
  Tocolytic
  Negative-pressure
  High-altitude
Interstitial lung disease
Diffuse alveolar hemorrhage
Atelectasis

**Pulmonary vascular disorders**

Pulmonary thromboembolism
  Deep venous thrombosis (DVT)
  Pulmonary embolism (PE)
Nonthrombotic embolism
  Air
  Tumor
  Septic
Pulmonary hypertension
Acute chest syndrome in sickle cell disease
Pulmonary vasculitis
Hepatopulmonary syndrome

Hemoptysis <2%
  Massive
  Submassive

Pleural disorders 2%
  Pleural effusion
    Infectious (empyema)
    Noninfectious
  Pneumothorax
  Hemothorax

<table>
<thead>
<tr>
<th>Infectious Disease</th>
<th>12% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic infections &lt;2%</td>
<td></td>
</tr>
</tbody>
</table>
  Sepsis and septic shock
  Bacterial infections (typical and atypical)
    Tuberculosis
    Atypical mycobacterial infections
    Nocardiosis
    Listeriosis
    Brucellosis
    Typhoid fever
    Tularemia
    Plague
    Rickettsial or Rickettsial-like infections
      Rocky Mountain spotted fever
      Erlichiosis/Anaplasmosis
    Spirochetal infections
      Lyme disease
      Leptospirosis
  Fungal infections
  Viral infections
  Parasitic diseases
    Malaria
    Babesiosis
    *Strongyloides* hyperinfection syndrome
    Giardiasis
Central nervous system infections

Meningitis
  Bacterial
    Meningococcal
    Pneumococcal
    Syphilitic
    Listerial
  Fungal
  Mycobacterial

Encephalitis
  Viral
    Herpes simplex virus
    West Nile virus
    Rabies
  Parasitic
  Brain abscess
  Epidural abscess

Head, neck, and upper airway infections

Eye and orbit
  Septic cavernous sinus thrombosis
  Soft tissue infections of the head and neck
  Sinusitis
  Epiglottitis

Cardiovascular infections

Pericarditis
Endocarditis
Device-related infections
  Catheter-related infections (peripheral, central venous, arterial, pulmonary artery)

Gastrointestinal and intra-abdominal infections

Esophageal
Liver
Gallbladder and biliary
Pancreatitis
  Necrotizing (infected)
  Pancreatic abscess
Gastroenteritis
  Community-acquired bacterial
Colitis and diverticulitis

*Clostridioides (Clostridium) difficile*–associated
Parasitic
Necrotizing enterocolitis (typhlitis)
Cytomegalovirus colitis
Peritonitis
Small intestine and appendix

**Genitourinary tract infections**
Cystitis, including catheter-related
Pyelonephritis
Perinephric abscess

**Soft tissue, bone, and joint infections**
Bites
Septic arthritis

**Infections associated with nonvascular transcutaneous catheters**

**Antimicrobial therapy and resistance**
Nonallergic toxicity
Allergic reactions
Resistant organisms
Gram-positive organisms
Gram-negative organisms
Fungi and inherent susceptibility patterns and resistance

**Pharmacokinetics**

**Infections in immunocompromised hosts**
Opportunistic infections in human immunodeficiency virus (HIV) infection
Neutropenia
Transplantation
Solid organ
Hematopoietic cell
Asplenia
Corticosteroid immunosuppression

**Virulence factors**
Toxic shock

**Bioterrorism**

**Hospital infection control**
<table>
<thead>
<tr>
<th>Gastrointestinal Disorders</th>
<th>5.0% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Esophagus</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Corrosive injury</td>
<td></td>
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<tr>
<td>Perforation and rupture</td>
<td></td>
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<tr>
<td>Fistula</td>
<td></td>
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<tr>
<td><strong>Stomach</strong></td>
<td>&lt;2%</td>
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<tr>
<td>Peptic ulcer disease</td>
<td></td>
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<tr>
<td>Non-peptic ulcer disease</td>
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<tr>
<td>Perforation</td>
<td></td>
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<tr>
<td>Mechanical disorders</td>
<td></td>
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<tr>
<td><strong>Small intestine</strong></td>
<td>&lt;2%</td>
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<tr>
<td>Perforation</td>
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<tr>
<td>Hemorrhage</td>
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<tr>
<td>Mechanical and motility disorders</td>
<td></td>
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<tr>
<td>Inflammatory bowel diseases</td>
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<tr>
<td><strong>Large intestine</strong></td>
<td>&lt;2%</td>
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<tr>
<td>Perforation</td>
<td></td>
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<tr>
<td>Hemorrhage</td>
<td></td>
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<tr>
<td>Mechanical and motility disorders</td>
<td></td>
</tr>
<tr>
<td>Colonic ischemia</td>
<td></td>
</tr>
<tr>
<td><strong>Liver</strong></td>
<td>&lt;2%</td>
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<tr>
<td>Hepatitis</td>
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<tr>
<td>Viral</td>
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<tr>
<td>Autoimmune</td>
<td></td>
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<tr>
<td>Alcohol- and drug-induced</td>
<td></td>
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<tr>
<td>Toxin and solvent exposure</td>
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<tr>
<td>Ischemic (shock liver)</td>
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<tr>
<td>Budd-Chiari syndrome</td>
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<tr>
<td>Portal hypertension</td>
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<tr>
<td>Esophageal variceal hemorrhage</td>
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<tr>
<td>Gastric variceal hemorrhage</td>
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<tr>
<td>Spontaneous bacterial peritonitis</td>
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<tr>
<td>Hepatorenal syndrome</td>
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<tr>
<td>Hepatopulmonary syndrome</td>
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<tr>
<td>Portopulmonary hypertension</td>
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<tr>
<td>Fulminant hepatic failure</td>
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<tr>
<td>Infection</td>
<td></td>
</tr>
<tr>
<td>Alcohol- and drug-induced</td>
<td></td>
</tr>
<tr>
<td>Tumor</td>
<td></td>
</tr>
</tbody>
</table>
Infiltrative diseases and nonalcoholic steatohepatitis (NASH)
Toxin exposure
Encephalopathy
Cerebral edema
Hypotension

**Pancreas**
- Pancreatitis
  - Infectious
  - Gallbladder disease
  - Tumor
  - Alcohol- and drug-induced
  - Toxin exposure
  - Hypertriglyceridemia-induced
  - Complications
- <2%

**Gallbladder and biliary tract**
- Cholecystitis, calculous and acalculous
- Cholangitis
- <2%

<table>
<thead>
<tr>
<th>Neurologic Disorders</th>
<th>9.5% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brain death</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>(also see entry in Research, Ethics, and Administration)</td>
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</tr>
<tr>
<td><strong>Cerebrovascular disease</strong></td>
<td>2.5%</td>
</tr>
<tr>
<td>Ischemic stroke</td>
<td></td>
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<tr>
<td>Intracerebral hemorrhage</td>
<td></td>
</tr>
<tr>
<td>Subarachnoid hemorrhage and aneurysm</td>
<td></td>
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<tr>
<td>Complications</td>
<td></td>
</tr>
<tr>
<td>Vasospasm</td>
<td></td>
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<tr>
<td>Other subarachnoid hemorrhage and aneurysm topics (hydrocephalus)</td>
<td></td>
</tr>
<tr>
<td>Cerebral vein and sinus thrombosis</td>
<td></td>
</tr>
<tr>
<td><strong>Seizures and status epilepticus</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Seizures complicating critical illness</td>
<td></td>
</tr>
<tr>
<td>Seizures during critical illness</td>
<td></td>
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<tr>
<td>Pre-existing epilepsy in critically ill patients</td>
<td></td>
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<tr>
<td>Status epilepticus</td>
<td></td>
</tr>
<tr>
<td>Generalized convulsive status epilepticus</td>
<td></td>
</tr>
<tr>
<td>Nonconvulsive status epilepticus</td>
<td></td>
</tr>
</tbody>
</table>
Electroencephalogram (EEG) monitoring in the intensive care unit (ICU)
Repetitive seizures

**Neurogenic pulmonary edema**<2%

**Neuromuscular respiratory failure**<2%
- Guillain-Barré syndrome
- Critical illness myopathy
- Critical illness polyneuropathy
- Tetanus
- Myasthenia gravis
- Botulism

**Increased intracranial pressure**<2%

**Head trauma**<2%
- Nonpenetrating head trauma
- Penetrating head trauma

**Spinal cord injury**<2%
- Cervical spine injury
- Thoracic spine injury

**Coma, encephalopathy, and delirium**<2%
- Anoxic/hypoxic brain injury
- Metabolic encephalopathy
- Drug-induced encephalopathy
- Drug and alcohol withdrawal
- ICU-related delirium
- Targeted temperature management

**Analgesia, sedation, and neuromuscular junction blockade**2%
- Analgesia
- Sedation
- Neuromuscular junction blockade

### Hematologic and Oncologic Disorders 5.5% of Exam

**Red blood cell diseases**<2%
- Anemias
- Polycythemias
- Hemoglobinopathies

**White blood cell diseases**<2%
- Leukopenia (immune, drug-related)
- Leukemias
Lymphoma
Multiple myeloma

**Platelet disorders**
Thrombocytosis
Thrombocytopenia
Platelet dysfunction

**Coagulopathies**
Disseminated intravascular coagulation (DIC)
Factor deficiencies
Anticoagulant associated coagulopathy
Hypothermia
Hemorrhagic shock

**Hypercoagulable states**
Proteins C and S, and antithrombin deficiency
Factor V Leiden mutation
Malignancy
Hormone replacement therapy and oral contraceptives
Antiphospholipid antibody syndrome

**Transfusion medicine**
Blood products
Apheresis
Adverse effects
Massive blood transfusion
Transfusion refusal

**Solid tumors**

**Oncologic syndromes**
Superior vena cava syndrome
Tumor lysis syndrome
Spinal cord compression
Hyperviscosity syndrome
Hypercalcemia

**Hematopoietic cell transplantation**
Graft-versus-host disease
Hepatic sinusoidal obstruction syndrome
(veno-occlusive disease)
Respiratory distress

**Complications of immunosuppressive drugs and chemotherapy**
Cyclosporine
Corticosteroids
Alkylating agents
Methotrexate
Sirolimus
Tacrolimus
Mycophenolate mofetil
Azathioprine

<table>
<thead>
<tr>
<th>Surgery, Trauma, and Transplantation</th>
<th>7.0 % of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cardiovascular and vascular surgery</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Cardiac</td>
<td></td>
</tr>
<tr>
<td>Mediastinal disease</td>
<td></td>
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<tr>
<td>Vascular, aortic and peripheral</td>
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<tr>
<td>Thoracic</td>
<td></td>
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<tr>
<td><strong>Abdominal and gastrointestinal</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Acute abdomen</td>
<td></td>
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<tr>
<td>Postoperative complications</td>
<td></td>
</tr>
<tr>
<td>Mesenteric ischemia and ischemic colitis</td>
<td></td>
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<tr>
<td>Abdominal compartment syndrome</td>
<td></td>
</tr>
<tr>
<td><strong>Genitourinary and obstetric emergencies</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Urologic</td>
<td></td>
</tr>
<tr>
<td>Obstetric</td>
<td></td>
</tr>
<tr>
<td><strong>Skin and soft tissues and extremities</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Soft tissue infections</td>
<td></td>
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<tr>
<td>Crush injury, myonecrosis, and rhabdomyolysis</td>
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<tr>
<td>Necrotizing fasciitis</td>
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<tr>
<td>Acute compartment syndrome</td>
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<tr>
<td><strong>Environmental injury</strong></td>
<td>3.5%</td>
</tr>
<tr>
<td>Inhalation injury</td>
<td></td>
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<tr>
<td>Hypothermia</td>
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<tr>
<td>Submersion injury, near-drowning, and diving trauma</td>
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<td>Altitude injury</td>
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<td>Electrical injury and lightning strike</td>
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<td>Radiation injury</td>
<td></td>
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<tr>
<td>Bioterrorism, noninfectious</td>
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<tr>
<td>Heatstroke</td>
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<td>Burn injury</td>
<td></td>
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<tr>
<td><strong>General postoperative management</strong></td>
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</tbody>
</table>
Trauma

- Flail chest
- Pulmonary contusion
- Hemothorax
- Great vessel injury
- Airway injury, tracheobronchial laceration and rupture
- Foreign body aspiration
- Blunt myocardial injury
- Fat embolism syndrome
- Intra-abdominal injury
- Massive bleeding
- Shock

Transplantation

- Heart
- Lung
- Liver
- Kidney
- Pancreas and intestines
- Organ donation

Pharmacology and Toxicology

- Basic pharmacologic principles
  - Pharmacokinetics
  - Dosing adjustments for disease states

- Drug-drug interactions

- Adverse effects of drugs
  - Immunologic allergic reactions
    - Anaphylaxis
    - Thrombotic thrombocytopenic purpura
    - Stevens-Johnson syndrome
  - Nonimmunologic adverse effects of drugs
    - Electrolyte and metabolic
    - Hyperthermia
    - Neurologic
    - Renal
    - Hematologic
    - Cardiac

- Toxicology, drug overdose, and poisoning
  - Acetaminophen
Beta-adrenergic blockers
Calcium channel blockers
Cyanide
Tricyclic antidepressants
Nitroprusside
Oral antihyperglycemic agents
Organophosphates
Salicylates
Sarin (nerve) gas
Selective serotonin reuptake inhibitors (SSRIs)
Additional psychotropic drugs
Scombroid food poisoning
Muscle relaxants
Xanthines
Iron toxicity
Antibiotic toxicity
Carbon monoxide
Methemoglobinemia

<table>
<thead>
<tr>
<th>Research, Administration, and Ethics</th>
<th>2.0% of Exam</th>
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<tbody>
<tr>
<td><strong>Intensive care unit (ICU) administration</strong></td>
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<tr>
<td>Regulatory issues</td>
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<tr>
<td>Intensive care unit (ICU) physical design</td>
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<td>Continuous quality improvement and patient safety</td>
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<td>Isolation</td>
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<td><strong>Staffing issues</strong></td>
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<td>Physician extenders in the intensive care unit (ICU)</td>
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<td>Interactions between hospitalists and intensivists</td>
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<td><strong>Medicolegal interactions</strong></td>
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<tr>
<td><strong>Ethical considerations</strong></td>
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<td>Patient autonomy</td>
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<td>Legal surrogates</td>
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<td>Informed consent for medical procedures</td>
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<tr>
<td><strong>Brain death</strong> (also see entry in Neurologic Disorders)</td>
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<td><strong>Conflict of interest</strong></td>
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<td><strong>Advance directives</strong></td>
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<td><strong>Patient confidentiality and Health Insurance Portability and</strong></td>
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<td><strong>Accountability Act (HIPAA) regulations</strong></td>
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<td><strong>End-of-life issues</strong></td>
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Organ donation <2%
Medical futility <2%
Medical research <2%
  Clinical trial design
  Statistical analysis
  Institutional review boards
Teaching and education <2%
  Teaching formats
Psychosocial issues <2%
  Professionalism
  Intensive care unit (ICU) burnout
  Impaired health-care professional

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<tr>
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July 2023