



AMERICAN OSTEOPATHIC ASSOCIATION

**Specific Basic Standards for
Osteopathic Fellowship Training in
Critical Care Medicine**

**American Osteopathic Association
and
American College of Osteopathic Internists**

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These specific basic standards are part of the *Common Basic Standards for Fellowship Training in Internal Medicine Subspecialties*, which govern and define training in all medical subspecialties. These requirements are in addition to all requirements in the Common Basic Standards.

IV- INSTITUTIONAL REQUIREMENTS

- 4.1 The base institution or an affiliate must have critical care units that are located within the hospital and are designed specifically for the care of critically ill patients and in separate locations or in combined facilities, provide the equivalent of a medical intensive care unit, a surgical intensive care unit and a coronary care unit.
- 4.2 The base institution or an affiliate must have equipment for monitoring patients with critical illnesses including ventilators, equipment for bedside hemodynamic monitoring and right heart catheterization, bedside ultrasound and a fluoroscopic room for catheter placement.
- 4.3 The base institution or an affiliate must have faculty members in the following areas who participate in the educational programs in nephrology, gastroenterology, pulmonary, cardiology, infectious disease, hematology, oncology and geriatric medicine who are certified in their specialty by the AOA or ABIM.
- 4.4 The base institution or an affiliate must have faculty members in anesthesiology, neurology and neurosurgery who are certified in their specialty by the AOA or American Board of Medical Specialties (ABMS) Board.
- 4.5 The base institution or an affiliate must have faculty members in the following areas who participate in the educational program in general surgery, thoracic surgery, urology, orthopedic surgery, obstetrics-gynecology, neurology, neurosurgery, emergency medicine, anesthesiology, cardiovascular surgery and vascular surgery.
- 4.6 In critical care units to which a fellow is assigned, an average census of at least five patients per fellow is required.
- 4.7 The institution must have nutritional support services.

V- PROGRAM REQUIREMENTS AND CONTENTS

A. Program Duration

- 5.1 The critical care fellowship must be 24 months in duration after completion of an internal medicine residency or after any medicine subspecialty fellowship except cardiology, pulmonary or nephrology.
- 5.2 The critical care fellowship must be 12 months in duration after completion of a cardiology, pulmonary or nephrology fellowship, or a combined emergency medicine/internal medicine residency.

B. Medical Knowledge

- 5.3 The fellow must have learning activities in physiology, pathophysiology, diagnosis and treatment of critical disorders of the cardiovascular, respiratory, renal, gastrointestinal, genitourinary, neurologic, endocrine, hematologic, musculoskeletal and immune systems and of infectious diseases.
- 5.4 The fellow must have learning activities in physiology, pathophysiology, diagnosis and treatment of electrolyte and acid-base disorders.
- 5.5 The fellow must have learning activities in metabolic, nutritional and endocrine effects of critical illnesses.

- 5.6 The fellow must have learning activities in hematologic and coagulation disorders associated with critical illnesses.
- 5.7 The fellow must have learning activities in critical obstetric and gynecologic disorders.
- 5.8 The fellow must have learning activities in management of the immunosuppressed patient.
- 5.9 The fellow must have learning activities in management of anaphylaxis and acute allergic reactions.
- 5.10 The fellow must have learning activities in trauma.
- 5.11 The fellow must have learning activities in drug metabolism and excretion in critical illness.
- 5.12 The fellow must have learning activities in the use of paralytic agents.
- 5.13 The fellow must have learning activities in ethical, economic and legal aspects of critical illness.
- 5.14 The fellow must have learning activities in psychosocial and emotional effects of critical illness on patients and their families.
- 5.15 The fellow must have learning activities in iatrogenic and nosocomial problems in critical care medicine.
- 5.16 The fellow must have learning activities in Occupational Safety and Health Administration (OSHA) regulations and universal precautions for protection of health care workers.

C. Patient Care

- 5.17 The fellow must have training and experience in the evaluation of oliguria.
- 5.18 The fellow must have training and experience in the management of massive transfusions.
- 5.19 The fellow must have training and experience in the management of hemostatic defects.
- 5.20 The fellow must have training and experience in the management of parenteral and enteral nutrition.
- 5.21 The fellow must have training and experience in the interpretation of antibiotic levels and sensitivities.
- 5.22 The fellow must have training and experience in the pharmacokinetics.

D. Systems-Based Practice

- 5.23 The program must provide opportunities for all the fellows to acquire those skills needed to direct a critical care unit and to work effectively as a member of a multidisciplinary team.

E. Rotational Curriculum

- 5.24 In one year critical care medicine programs, the fellow must have at least 6 months of training in medical and cardiac intensive care units under the direct supervision of the program director or a designee.
- 5.25 Additional training must be provided in dialysis techniques and in medical emergencies that occur in endocrinology, gastroenterology, hematology, oncology, infectious diseases and neurology.
- 5.26 Fellows must have a rotation that will allow them to care for patients that have had open heart surgery.

- 5.27 In two year critical care programs, the fellow must have at least 6 months of each year in medical and cardiac intensive care units under the supervision of the program director or a designee.
- 5.28 During the first year of training, specific rotations in endotracheal intubation techniques, mechanical ventilatory support, central venous access techniques, hemodynamic monitoring and support and management of acute renal failure are required. The program content for the second year is as outlined above for the one year program.

F. Procedural Training Requirements

- 5.29 The fellow must become competent in establishment and maintenance of an open airway in nonintubated, unconscious, paralyzed adults.
- 5.30 The fellow must become competent in pressure-cycled, volume-cycled, time-cycled, and flow-cycled mechanical ventilation.
- 5.31 The fellow must become competent in the use of reservoir masks and continuous positive pressure masks for the delivery of supplemental oxygen, humidifiers, nebulizers and incentive spirometry.
- 5.32 The fellow must become competent in management of pneumothorax (needle insertion and drainage systems) and chest tube insertion.
- 5.33 The fellow must become competent in maintenance of circulation with arterial puncture and blood sampling, insertion of central venous, arterial, and pulmonary artery balloon flotation catheters, basic and advanced cardiopulmonary resuscitation, and cardioversion.
- 5.34 The fellow must become competent in thoracentesis.
- 5.35 The fellow must become competent in the use of monitoring equipment including the utilization, zeroing and calibration of transducers and the use of amplifiers and recorders.
- 5.36 The fellow must become competent in cardiac output determinations by thermodilution and other techniques.
- 5.37 The fellow must become competent in calculation of oxygen content, intrapulmonary shunt and alveolar arterial gradients.
- 5.38 The fellow must learn the indications, contraindications, complications, and limitations of pericardiocentesis.
- 5.39 The fellow must learn the indications, contraindications, complications, and limitations of transthoracic and transvenous pacemaker insertion.
- 5.40 The fellow must learn the indications, contraindications, complications, and limitations of peritoneal dialysis.
- 5.41 The fellow must learn the indications, contraindications, complications, and limitations of peritoneal lavage
- 5.42 The fellow must learn the indications, contraindications, complications, and limitations of chest tube insertion.
- 5.43 The fellow must learn the indications, contraindications, complications, and limitations of intracranial pressure monitoring.