



AMERICAN OSTEOPATHIC ASSOCIATION

Basic Standards for Residency Training in Anesthesiology

**American Osteopathic Association
and
American Osteopathic College of Anesthesiologists**

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I. INTRODUCTION

These are the Basic Standards for Residency Training in Anesthesiology as established by the American Osteopathic College of Anesthesiologists and approved by the American Osteopathic Association (AOA). These standards are designed to provide the osteopathic resident with advanced and concentrated training in anesthesiology and to prepare the resident for examination for certification in Anesthesiology by the American Osteopathic Board of Anesthesiology (AOBA).

II. MISSION

The mission of the osteopathic anesthesiology training program is to provide residents with comprehensive structured cognitive and clinical education that will enable them to become competent, proficient and professional osteopathic anesthesiologists.

III. EDUCATIONAL PROGRAM GOALS

The goals of an anesthesiology residency program are to provide the anesthesiology resident with an environment that promotes the acquisition of the knowledge, clinical skills, clinical judgment, and interpersonal skills essential to the practice of anesthesiology, including the incorporation of the Core Competencies:

- 3.1 Osteopathic Philosophy and Osteopathic Manipulative Medicine
 - a. Integrate osteopathic principles into the diagnosis and management of patients in clinical anesthesia presentations.
 - b. Apply osteopathic manipulative treatment in patient management.
- 3.2 Medical Knowledge
 - a. Demonstrate competency in understanding and application of clinical skills specific to the practice of anesthesia.
 - b. Demonstrate knowledge of the complex treatment options of anesthesiology.
 - c. Integrate the sciences applicable in anesthesiology with clinical experiences and outcomes.
 - d. Understand and apply the foundations of behavioral medicine
 - e. Demonstrate the ability to provide end of life care.
 - f. Identify and address socioeconomic, ethnic, religious, and cultural aspects of illness and their impact on patient clinical presentation and subsequent management.
 - g. Demonstrate knowledge of the complex treatment options of anesthesiology.
- 3.3 Professionalism
 - a. Identify the role of anesthesiology as it relates to other medical disciplines.
 - b. Identify potential areas of conflict of interest inherent in the practice of anesthesiology.
 - c. Demonstrate utilization of medical therapies and procedures with the most optimal outcomes obtainable.

- d. Demonstrate the understanding of the implicit trust and authority that patients often place upon physicians and recognize the ethical requirement to avoid exploitation of that trust either intentionally or unintentionally, without compromising the patient's respect and confidence in the practice of anesthesia.

3.4 Interpersonal and Communication Skills

- a. Exercise patient interviewing skills by demonstrating verbal communication with clarity, sensitivity, and respect.
- b. Demonstrates well-organized, succinct, and legible medical record entries.
- c. Demonstrate ability to interact with support staff in the base institution and out-rotation settings, or in any setting where anesthesia is practiced, in a constructive and positive manner.
- d. Identify methods to communicate with non-English speaking patients and those having sensory deficits (verbal, visual, auditory, or any other communicative disability).

3.5 Patient Care

- a. Demonstrate the ability to rapidly evaluate, initiate, and provide treatment for patients who are critically ill using medical practice; this shall include the ability to implement acceptable treatments for acute or chronic disease entities.

3.6 Systems-Based Practice

- a. Develop in resident the skills needed to practice within a systems-based health care environment and use the resources to deliver quality care integrating both basic sciences and clinical medicine.
- b. Understand the national and local health care delivery system and how they impact on patient care and advocate for the patient in obtaining quality care in complex systems.

3.7 Practice-Based Learning and Improvement

- a. Develop professional leadership and practice management skills.
- b. Evaluate the progress of resident training by using continuous assessment tools such as systematic evaluation including self-study, individual trainee assessment, outcomes analysis, and quality improvement programs in the hospital and ambulatory settings.
- c. Identify information technology applicable to the practice of anesthesiology and research and the ability to demonstrate its clinical relevance.
- d. Demonstrate the development of resident teaching skills.
- e. Prepare the resident to meet the eligibility criteria of the AOA and the AOCA to take the certification examination administered by the American Osteopathic Board of Anesthesiology (AOBA).

IV. INSTITUTIONAL REQUIREMENTS

- A. The institution must confirm that education, in combination with quality patient care, must be the first priority of the anesthesiology residency program and provide educational records which document this commitment. (i.e., procedure logs, educational meeting schedules, segregated totals, etc.)
- B. The members of the anesthesia department must consult with those specialists whose services may aid in the evaluation of the seriously ill or multiple systems disease patients that may require an anesthetic procedure. The anesthesiologist shall be the final judge in both the selection of the anesthetic procedure, the anesthetic medications, and the methods of administration.
 - 4.1 Residents must have a ready access to specialty-specific and other appropriate material in print or electronic format. Electronic medical literature databases with search capabilities shall be available.
 - 4.2 The institution must have an organized department of anesthesiology, which must provide evidence that there is review of quality care provided by all members of this department as well as their utilization of hospital services.
 - 4.3 The institution's department of Anesthesiology at the base institution must have a department composed of two (2) or more anesthesiologists who are core faculty members at that base institution taking an active role in the training program faculty to ensure exposure for the residents in patient care and to provide supervision of each resident. These anesthesiologists must be board certified or eligible to be board certified by the AOA through the AOBA or ABA.
 - 4.4 Twenty-five percent (25%) of the core faculty must be osteopathic anesthesiologists.
 - 4.5 All physicians clinically supervising the anesthesiology residents must be certified in anesthesiology by the AOBA or the ABA, or in the process of being certified, and credentials must be available at the time of an on-site inspection.
 - 4.6 For every three (3) resident positions, the base institution must have a minimum of one (1) core faculty member who is certified in anesthesiology by the AOBA or ABA.
 - 4.7 The institution's Program Director must be certified by the AOA through the AOBA.
 - 4.8 The base institution must have the scope, volume and variety to support a residency program with a minimum of four (4) residency positions or one (1) per year. There must be a minimum volume of 1800 anesthesiology department procedures annually. Other anesthesiology sites which are affiliates with the base institution must have a minimum volume capable of supplementing the volume at the base institution to warrant additional residency positions annually.
 - 4.9 All educational activities must be documented. The residents' file and all educational documentation must be available for review at the time of a

scheduled AOA on-site inspection. The institution must also retain resident logs, reports, evaluations and all other records for a minimum of five years beyond the resident's completion of program. The files must contain:

- a. Procedure logs
 - b. In-service exam scores.
- 4.10 The institution shall provide a proctor for the administration of the AOCA inservice. The exam must be kept in a secure place and be administered within the institution. There shall be no distribution of the exam either before or after administration of the exam.
- 4.11 The institution's department of anesthesiology shall have a quality assurance program and a mechanism in place to collect data and monitor quality issues. The quality assurance committee shall respond to all allegations of the local peer review. There shall be resident participation in the quality assurance process.
- 4.12 The institution shall have administrative and other non-physician staff committed to the program to support teaching in the anesthesiology residency program.
- 4.13 The institution shall have an infection control program.
- 4.14 Monitoring equipment compliant with current ASA standards of monitoring care shall be available.
- 4.15 The Anesthesiology Residency Program must adopt formal policies and the Residents must be advised of these policies. There must be a Resident Manual that will include, but not limited to:
1. The Institution's Anesthesiology residency curriculum.
 2. The Rules and regulations stating the Resident's duties and responsibilities.
 3. Leave Policies
 4. Financial arrangements, including housing, meals, and other benefits, as may be determined by the institution and described in the Resident contract.
 5. Institutional policies and procedures for the supervision and evaluation of Residents, due process, (E.G. Grievances, disciplinary action, academic deficiencies or failure) and appeal processes.
 6. Policies governing outside activities of a professional nature.
 7. Institutional policies regarding contract renewal, contract interruption or cancellation, and the number of anesthesiology positions offered each year of training.

V. PROGRAM REQUIREMENTS AND CONTENT

- A. The residency training in anesthesia shall be for a period of four years.
- B. Advanced Standing shall be considered as follows and in accordance with the AOA Basic Documents:
 - a) Consideration for advanced standing towards the completion of an anesthesiology residency for training taken in other medical disciplines and/or other anesthesia programs will be considered on an individual basis by the American Osteopathic College of Anesthesiologists Evaluating Committee. Advanced standing must be in compliance with the AOA Basic Documents for Postdoctoral Training. The resident may petition at any time for advanced standing credit during his/her residency training in any specialty.
 - b) The candidate must submit the following data for consideration of advanced standing:
 - 1. Documented curriculum of rotations performed by the resident and request for advanced standing.
 - 2. Evaluations from the program director confirming that the candidate had achieved a specific level of training as documented by that program director's evaluation of the resident's training for the period of time requested.
 - 3. An endorsement from the current program director recommending advanced standing for a specific block of time, not to exceed twelve (12) months.
- C. Educational Program Content/ Curriculum for Anesthesia Resident Training
 - 5.1 First Year OGME-1 residency training in anesthesiology comprises the following described formula:
 - 1. Under this rotation schedule, each first year resident must complete the following educational rotations and activities, scheduled as twelve (12) one month rotations or thirteen (13) four week rotations (13th rotation at program director's direction).
 - 2. During the omge-1 year there shall be: basic science didactic input that covers a broad overview of medicine including osteopathic concepts. Written goals and objectives must be provided for each clinical rotation.
 - 3. Eight (8) rotations divided as follows:
 - A. One (1) rotation in critical care.
 - B. Three (3) rotations in in-patient internal medicine relevant to the practice of anesthesiology and subject to program director's approval
 - C. Two (2) rotations in surgery, one of which is general surgery and one of which is the following: vascular, orthopedic, urologic, ENT.

- D. One (1) rotation in pediatrics (inpatient or ambulatory). Where a rotation in pediatrics cannot be obtained a rotation in family practice where there is an emphasis on the care of pediatric patients maybe substituted.
 - E. One (1) rotation in obstetrics and gynecology (if available) or female reproductive medicine.
4. A maximum of four months of anesthesia to include:
- A) Osteopathic principles and practice.
 - B) Airway management.
 - C) Basic pharmacology
 - D) Anesthesia machine
 - E) Methods of anesthesia delivery
 - F) Perioperative evaluation and management
 - G) Patient monitoring
 - H) Anesthesia and systemic disease
 - I) Introduction to regional anesthesia

5.2 Second year OGME-2 and third year OGME-3 residency training in anesthesiology comprises the following required elements:

These OGME years must emphasize a graded progression of core anesthesia knowledge and skills.

- The resident shall receive training in complex technology and equipment such as tee, ultrasound guided anesthesia, extracorporeal membrane oxygenator or cardiopulmonary bypass, and swan ganyplacement and parameters.
- Advanced airway management such as fiber optic guided intubations and other airway devices.
- Neuro-axial anesthesia
- Concepts of anesthesia and coexisting diseases
- Acute pain management
- Chronic pain management
- Pharmacology
- Fluids, electrolytes, and transfusion medicine
- Patient positioning
- Patient monitoring and procedures

- Advanced concepts in perioperative care (for example malignant hyperthermia)
- Age specific anesthetic considerations
- Anesthesia outside the operating room
- Single lung ventilation management
- Critical care medicine (a minimum of one rotation in icu)
- Medical legal considerations in the practice of anesthesia
- Economics of practice
- The use of musculoskeletal findings in clinical problem solving and establishing indications for osteopathic manipulative therapy.
- Integrated radiology exposure as clinically relevant
- Exposure to core surgical disciplines
 - o Neurosurgery
 - o Cardio-thoracic anesthesia
 - o Obstetric analgesia and anesthesia
 - o Orthopedic surgery
 - o Urology
 - o General surgery
 - o Ophthalmic
 - o ENT
 - o Anesthesia for trauma patients
 - o Pediatric anesthesia
 - o Geriatric anesthesia
 - o Outpatient anesthesia
 - o PACU
 - o Plastic surgery

5.3 Fourth year OGME-4 residency training in anesthesiology comprises the following required elements:

A. The resident, in collaboration with the program director, must select one of the following twelve month formats:

1. Format #1-advanced training: management of the most complex anesthesia cases (i.e., one lung anesthesia; specific nerve block procedures, both therapeutic and diagnostic).

2. Format #2- subspecialty training: the resident must complete nine (9) months in one of the subspecialty rotations and three (3) months in comprehensive and complex assignments:
 - a) critical care medicine
 - b) acute and chronic pain management
 - c) research-oriented programs
 - d) coma-induced anesthesia
 - e) pediatrics
 - f) obstetrics
 - g) cardiovascular
 - h) pulmonary
 - i) neurosurgery

VI. PROGRAM DIRECTOR AND FACULTY

Program Director Qualifications

- 6.1 Appointments are subject to approval by the AOCA Evaluating Committee. The program director of the anesthesiology program must possess the following qualifications and those stipulated in the AOA basic document criteria for program directors:
 - a. Membership in the AOCA.
 - b. Certification by the AOA through the AOBA and recertified within the prescribed time frame of the certifying body.
 - c. Be credentialed and have staff privileges by the department or section of Anesthesia at the base institution.
 - d. Practice of anesthesiology for a minimum of five (5) years or three (3) years full-time with an anesthesiology residency program.
 - e. Active staff membership within the department of anesthesiology.
 - f. Fulfill the qualifications as a faculty member of an anesthesiology residency program, including program administration, demonstrated leadership skills, faculty development, anesthesiology training skills, and completion of AOA continuing medical education (CME) requirements. AOCA requires 150 hours of CME credits over a three year period, fifty (50) of which are to be in the specialty of anesthesia.
 - g. Active participation in community and professional organizations (i.e.: City, County, State).
 - h. Involvement in research and academic pursuits; Examples may include, but are not limited to publication in peer review journals, textbooks, local or specialty publications, formal lectures, and visiting professorships.

Program Director Responsibilities:

- 6.2 The program director shall have the following responsibilities:
 - a. Direction of the anesthesiology residency program to ensure that the resident receives the training outlined in the program description.
 - b. Arrangement of formal affiliation agreements and/or outside rotations necessary to meet the basic standards or enhance training to meet the program objectives. Evaluations from the individual responsible at the affiliated training site must be included in the program director's annual report of each resident.
 - c. The Program Director shall provide evidence of progressive and increasing supervised responsibility by the resident as his/her training progresses.
- 6.3 Annual program director's reports must be submitted to the AOCA at the completion of each year of training.
- 6.4 The program director shall provide evidence of cooperative assistance in the training of the anesthesiology residents by other departments.
- 6.5 The program director must provide a printed format of reading assignments for the residents.
- 6.6 The program director shall schedule formal journal club meetings.
- 6.7 The program director shall provide evidence of the utilization of osteopathic concepts and philosophy in the residency program.
- 6.8 The program director shall schedule/participate in medical audits, mortality reviews, tissue and tumor conferences.
- 6.9 The program director shall work with the DME to support pre-doctoral and post-doctoral education and training at the institution.
- 6.10 The program director must notify the AOCA of all residents in the training program on an annual basis and immediately notify the AOCA preceding a change in residency status.
- 6.11 The program director must participate in the annual AOCA Program Director's Workshop. Attendance is mandatory for the program director, or their designee, to attend a minimum of one Program Director's Workshop every other year.
- 6.12 The program director must advise the AOCA's Evaluating Committee, in writing, with the reason for the resident's inability to participate in the annual AOCA In-Service Examination within ten (10) days before the examination day.

VII. RESIDENT REQUIREMENTS

- 7.1 A resident in residency training in anesthesiology must comply with the AOA Basic Documents for Postdoctoral Training and:
 - a. Submit a resident report (segregated totals) quarterly to the program director to be forwarded to the AOCA to be added to the permanent resident record.

Annual resident reports are due within thirty (30) days of the completion of the residency year.

- b. The resident shall maintain formal records of all activities related to the educational program including procedure logs which shall be submitted to the AOCA quarterly. These records shall document the fulfillment of the program requirements, describing volume, variety, scope, and progressive responsibility on the part of the anesthesia resident, as well as procedures performed under supervision. The resident shall retain a copy of all documents submitted to the AOA and AOCA during the course of residency. The logs must contain dates, ASA #, diagnosis, procedure, agents and techniques and be in acceptable AOCA format. A copy must be maintained in the resident file.
- c. The resident must prepare an outline for a scientific paper, approved by the program director and the AOCA Evaluating Committee, and submitted to the AOCA Evaluating Committee in the second year (OGME-2) of residency.
- d. Each resident must complete a scholarly assignment in publishable format. The resident must be the principal investigator unless otherwise approved by the program director. Academic projects may include difficult case presentations, review articles, research, book chapters, or similar academic activities as approved by the program director. It is expected that the outcomes of resident investigations will be suitable for presentation at local, regional, or national scientific meetings. A faculty supervisor must be in charge of each project and investigation. This assignment must be completed and submitted to the AOCA by the conclusion of the OGME -3 year (special approval for extension may be obtained from the AOCA evaluating committee).
- e. The resident is required to participate in professional staff activities that are of interest to the training program, such as medical audits, mortality reviews, tissue and tumor conferences as assigned.
- f. The resident must participate in the annual AOCA In-Service Examination. In the event the resident is not able to participate in the examination, due to reasons of documented ill-health, emergency, or other extenuating circumstances, the program director has the authority to waive this requirement for that year.
- g. The resident is required to be certified in Advanced Cardiac Life Support (ACLS), Advanced Trauma Life Support (ATLS) or its' equivalent, and Advanced Pediatric Life Support (PALS) and provide certification to the education department.
- h. The resident must participate in the Annual Evaluation of the Program and submit the evaluation to the AOCA within thirty (30) days of completion of each residency year.
- i. The resident is required to complete quarterly Resident Reports (Segregated Totals) to the Program director which will be forwarded to the AOCA and kept in the residents' permanent record.
- j. Resident must participate in an annual evaluation of the program goals, curriculum, and faculty.
- k. The resident must maintain procedural logs in the approved AOCA format. The

resident must attend one CME conference during the course of their training. The program director must approve the conference to assure that the program meets the educational needs of the trainee. When applicable attendance at an AOCA conference is strongly encouraged.

- l. The resident must maintain a current mailing and email address with the AOCA during the course of the residency.
- m. Increased competency in Anesthesiology is based on experience and number and variety of cases managed in the Anesthesiology department. Such experience is gained through participation in highly specialized rotations as deemed necessary by the program director. The Resident shall observe, assist, and administer no fewer than 400 and not greater than 800 procedures per OGME year. The total number of anesthetic procedures for the third (3rd) year of training may vary according to the program selected.

VIII. EVALUATION

8.1 The resident's evaluation file must contain:

- a. In-service exam scores
- b. Segregated totals for each year
- c. Program directors annual evaluations for each year
- d. COMLEX scores
- e. Post graduate courses attended