



AMERICAN OSTEOPATHIC ASSOCIATION

**Basic Standards for
Fellowship Training in
Pediatric Anesthesiology**

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

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**Basic Standards for Fellowship in
Pediatric Anesthesiology**

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ARTICLE I - INTRODUCTION

These are the Basic Standards for the Pediatric Anesthesiology Fellowship established by the American Osteopathic College of Anesthesiologists (AOCA). Osteopathic training in pediatric anesthesiology is defined as a formal training period of one (1) year in an osteopathic approved program following graduation from an American Osteopathic College of Anesthesiologists (AOCA) approved residency program. This program shall be planned and conducted for the purpose of providing advanced and concentrated specialty training in pediatric anesthesiology.

ARTICLE II -MISSION

The purpose of Osteopathic Pediatric Fellowship training is to provide a one (1) year program presenting progressive learning experiences based on measurable objectives that develop the skills and knowledge of an osteopathic PEDIATRIC anesthesiologist.

ARTICLE III -EDUCATIONAL PROGRAM GOALS

The goals of the Pediatric Anesthesiology Fellowship program are to provide the anesthesiology fellow an environment that promotes the acquisition of the knowledge, clinical skills, clinical judgment and interpersonal skills essential to the practice of pediatric 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 pediatric anesthesia.
- b. Demonstrate knowledge of the treatment options of pediatric anesthesiology.
- c. Integrate the basic sciences to pediatric anesthesiology with clinical medicine results 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 presentations and subsequent management.

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 pediatric anesthesiology.
- c. Demonstrate utilization of medical management and procedures with the most optimal outcomes available for pediatrics.

- d. Demonstrate the understanding of the implicit trust and authority that patients or responsible party 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 pediatric anesthesiology.

3.4 Interpersonal and Communication Skills

- a. Exercise patient interviewing skills by demonstrating verbal communication with clarity, sensitivity and respect.
- b. Demonstrates thorough, well-organized, clear, succinct and legible medical record entries.
- c. Demonstrate the ability to interact with, patients, patient's families and members of the health team 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 evaluate, initiate and provide treatment for patients who are critically ill.

3.6 Systems-Based Practice

- a. Develop the skills needed, in the fellow, 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 fellowship 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 pediatric anesthesiology and research, and the ability to demonstrate its clinical relevance.
- d. Demonstrate the development of fellow teaching skills.
- e. Prepare the fellow to meet the eligibility criteria of the American Osteopathic Association (AOA) and the AOCA to take CAQ examination administered by the American Osteopathic Board of Anesthesiology (AOBA).

ARTICLE IV - INSTITUTIONAL REQUIREMENTS

- 4.1 Fellows must have ready access to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities should be available.
- 4.2 The institution must have an organized department or section of pediatric anesthesia, 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 to two (2) or more anesthesiologists who are members or the medical staff taking an active role in the training program faculty to ensure that exposure for the fellows in patient care and to provide supervision of each fellow. These anesthesiologists must be board certified or eligible to be certified by the AOA through the AOBA or ABA. Credentials must be available at the time of an on-site inspection of a CAQ in pediatric anesthesia.
- 4.4 The base institution must have the scope, volume, and variety to support a fellowship program with a minimum of one (1) position per year. A minimum volume of 1000 pediatric 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 fellowship positions annually.
- 4.5 The institution's department of pediatric anesthesiology shall have a quality assurance program and a mechanism in place to collect data and monitor quality issues. The quality assurance committee will respond to allegations of the local peer review. There shall be fellow participation in the quality assurance process.
- 4.6 The institution shall have administrative and other non-physician staff committed to the program to support teaching in the anesthesiology program.
- 4.7 The institution's department or section of pediatric anesthesiology shall have an infection control program.

ARTICLE V - PROGRAM REQUIREMENTS AND CONTENT

General Program Requirements

- 5.1 The fellowship training program shall be **a minimum of 12 months** or one year in duration.
- 5.2 Fellowship training in pediatric anesthesiology comprises the following requirements:
- a. During the first four (4) months of the 12 month program there must be basic science didactic input integrated to include anatomy, physiology, pharmacology, and pathology with reading assignments from a major pediatric anesthesia textbook dealing with the fundamentals of anesthesia (i.e., Pediatric Anesthesia, Current Edition, George A. Gregory).
 - b. Twelve (12) months **or thirteen (13) four week** rotations divided as follows:
 1. **One (1) month or four (4) weeks** of critical care medicine in the Pediatric Intensive Care Unit.
 2. **Two (2) months or eight (8) weeks** of pediatric cardiac anesthesia with emphasis on the following specialties:
 - a) Anatomy/Physiology
 - b) Developmental Issues
 - c) Preoperative Evaluation
 - d) Perioperative Management

- e) Anesthesia for Cardiac Surgical Procedures
- f) Postoperative Care

3. One (1) month **or four (4) weeks** Acute/Chronic Pain Management
4. Four (4) months **or sixteen (16) weeks** of anesthesia taught by the department of anesthesiology to include:
 - a) Osteopathic principles and practice.
 - b) Airway management.
 - c) Pulmonary Medicine exposure/experience as taught by the anesthesia staff as it affects choice of anesthetic management of the surgical patient.
 - d) Non-invasive and invasive radiologic interpretations of diagnostic procedures and their impact on the anesthetic management of the surgical patient.
 - e) Cardiology and the interpretation of sophisticated cardiac tests and their influence on the management of the cardiac patient undergoing surgery for a non-cardiac condition.
 - f) Basic instruction in performing research and writing a scientific paper.
 - g) Pediatric anesthetic academic presentations to encompass neonatal, pediatric and adolescence anesthesia.
5. One (1) months **or four (4) weeks** of advanced pediatric anesthesia procedures outside of the operating room (i.e., radiology, emergency room, gastroenterology).
- 6. Research rotations, other rotations, and electives can be arranged at the discretion of the program director.**

Clinical Components

- 5.3 The subspecialty fellow in pediatric anesthesiology must gain expertise in the following areas of clinical care of neonates, infants, children and adolescents:
- a. Preoperative assessment of children scheduled for surgery.
 - b. Cardiopulmonary resuscitation and advanced life support.
 - c. Management of normal and abnormal airways.
 - d. Mechanical ventilation
 - e. Temperature regulation
 - f. Placement of venous and arterial catheters.
 - g. Pharmacologic support of the circulation.
 - h. Management of both normal peri-operative fluid therapy and massive fluid and/or blood loss.
 - i. Interpretation of laboratory results.
 - j. Management of children requiring general anesthesia for elective emergent surgery for a wide variety of surgical conditions including neonatal surgical emergencies, cardiopulmonary bypass and congenital disorders.
 - k. Techniques for administering regional anesthesia for inpatient and ambulatory

surgery in children.

- l. Sedation or anesthesia for children outside the operating room, including those undergoing radiologic studies.
- m. Recognition, prevention and treatment of pain in medical and surgical patients.
- n. Consultation for medical and surgical patients.
- o. Recognition and treatment of peri-operative management of congenital and acquired disorders.
- p. Participation in the care of critically ill infants and children in a neonatal and/or pediatric intensive care unit.
- q. Transport of critically ill patients between hospitals and/or within the hospital.
- r. Psychological support of patients and their families in preparation for roles as consultants to other specialists, subspecialty fellows in pediatric anesthesiology should have the opportunity to provide consultation under the direction of faculty responsible for teaching in the pediatric anesthesiology program. This should include assessment of the appropriateness of a patient's preparation for surgery and recognition of when an institution's personnel, equipment, and/or facilities are not appropriate for management of the patient.
- s. Diagnosis and peri-operative management of congenital and acquired disorders.

Didactic Components

5.4 The didactic curriculum provided through lectures and reading, must include the following areas, with emphasis on developmental of the following aspects as they pertain to anesthesia and life support for pediatric patients:

- a. Cardiopulmonary resuscitation
- b. Pharmacokinetics and pharmacodynamics and mechanisms of drug delivery.
- c. Cardiovascular, respiratory, renal, hepatic, and central nervous system physiology, pathophysiology and therapy.
- d. Metabolic and endocrine effects of surgery and critical illness.
- e. Infectious disease pathophysiology and therapy
- f. Coagulation abnormalities and therapy.
- g. Normal and abnormal physical and psychological development.
- h. Trauma, including burn, management
- i. Congenital anomalies and developmental delay
- j. Medical and surgical problems common in children
- k. Use and toxicity of local and general anesthetic agents
- l. Airway problems common in children
- m. Pain management in pediatric patients of all ages
- n. Ethical and legal aspects of care
- o. Transport of critically ill patients

- p. Organ transplantation in children
- q. All pediatric anesthesiology fellows should be certified as providers of advanced life support for children.

ARTICLE VI - PROGRAM DIRECTOR/FACULTY

Program Director Qualifications:

- 6.1 The sponsoring institution shall designate an osteopathic physician as program director for the program who has full clinical time for program administration and clinical instruction. The program director of the pediatric anesthesiology program must possess the following qualifications:
- a. Membership in the AOCA
 - b. Be credentialed and have staff privileges by the department or section of anesthesia at the institution sponsoring the fellowship.
 - c. Active staff membership within the department of anesthesiology.
 - d. Certified by the AOA through the AOBA, with a CAQ in pediatric anesthesiology or evidence of one (1) year residency in pediatric anesthesiology.
 - e. Fulfill the qualifications as a faculty member of a pediatric anesthesiology program.
 - f. Active participation in community and professional organizations (i.e., City, County, State).
 - g. Involvement in research and academic pursuits. Examples may include but are not limited to: publication in peer review journals, textbooks, local or specialty publication, formal lectures, and visiting professorships.

Program Director Responsibilities:

- 6.2 The program director shall assume all responsibilities as indicated in the aoa basic documents.
- 6.3 The program director shall provide evidence of cooperative assistance in the training of pediatric anesthesiology fellows by other departments.
- 6.4 The program director must provide a printed format of reading assignments for fellows.
- 6.5 The program director shall schedule formal journal club meetings.
- 6.6 The program director shall provide evidence of the utilization of osteopathic concepts and philosophy in the fellowship program.
- 6.7 The program director shall schedule and participate in medical audits, mortality reviews, and tissue and tumor conferences.
- 6.8 The program director must notify the AOCA of all fellows in the training program on a semi-annual basis and immediately notify the AOCA preceding a change in fellowship status.
- 6.9 The program director must participate in the annual AOCA Program Director's Workshop. Attendance is mandatory for the program director to attend a minimum of one (1) Program Director's Workshop every three (3) years.

Faculty

- 6.10 The base institution must have a minimum of one (1) core faculty member for every three (3) resident positions. These anesthesiologists must be board certified by the AOA through the AOBA or ABA.

ARTICLE VII - FELLOW REQUIREMENTS

- 7.1 All educational activities must be documented. The fellows' 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 fellow logs, reports, evaluations and all other records for a minimum of five (5) years beyond the fellow's completion of the program. The files must contain:
- a. Procedure logs
 - b. Lecture assignments w/dates & attendance sheets
 - c. Journal club attendance sheets
 - d. Attendance sheets with sign-in for other related educational activities.

ARTICLE VIII - EVALUATION

- 8.1 In addition to meeting the evaluation requirements of the AOA basic document, fellow evaluation must include:
- a. In-service exam scores [?]
 - b. Certification board scores (number of times each section taken) [?]
 - c. Segregated totals
 - d. Program directors evaluations for each quarter
 - e. Post graduate courses [?]