BASIC STANDARDS FOR RESIDENCY TRAINING IN ANATOMIC PATHOLOGY AND LABORATORY MEDICINE

American Osteopathic Association and the American Osteopathic College of Pathologists

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SECTION I-INTRODUCTION

These are the Basic Standards for Residency Training in Anatomic Pathology and Laboratory Medicine as approved by the American Osteopathic Association and the American Osteopathic College of Pathologists. These standards are designed to provide the qualified osteopathic resident a structured educational experience in anatomic pathology and laboratory medicine and to prepare the resident for certifying examinations in anatomic pathology and laboratory medicine.

SECTION II- MISSION

The mission of the Anatomic Pathology and Laboratory Medicine residency is to provide the qualified osteopathic resident a structured educational experience in anatomic pathology and laboratory medicine and to prepare the resident for certifying examinations in anatomic pathology and laboratory medicine.

ARTICLE III- EDUCATIONAL PROGRAM GOALS

The specialty of anatomic pathology and laboratory medicine involves the study of the nature and cause of disease relative to alteration of structure and function.

The purpose of the anatomic pathology and laboratory medicine training program is to:

1. Train the osteopathic physician in the etiology and nature of disease and the disease process.
2. Provide the opportunity for management of business aspects and personnel in the clinical and anatomic pathology laboratory.

The anatomic pathology and laboratory medicine training program shall also train to osteopathic Core Competencies. Expected skills and competencies required of residents must be distributed to the resident and faculty annually in either written or electronic form and reviewed at the start of each rotation.

1. Osteopathic Philosophy and OMT Residents are expected to demonstrate and apply knowledge of osteopathic medicine as appropriate to the specialties of anatomic pathology and laboratory medicine. The intent is to encourage the osteopathic practitioner to continue a life-long dedication to learning and osteopathic principles.

2. Medical Knowledge Residents are expected to demonstrate and apply knowledge of accepted standards of clinical medicine to the fields of anatomic pathology and laboratory medicine by remaining current with new developments in medicine including research.

   a. Patient Care Residents are expected to demonstrate the ability to incorporate osteopathic philosophy into the provision of anatomic pathology and laboratory medicine services.
3. Interpersonal and Communication Skills
   a. Residents are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with other members of the medical and non-medical communities.

4. Professionalism
   a. Residents are expected to uphold the osteopathic oath in the conduct of their professional activities and adhere to ethical principles when collaborating with health professionals. Residents should be sensitive to a diverse population, be cognizant of their own physical and mental health, and of patient safety issues.

5. Practice-Based Learning and Improvement
   a. Residents must demonstrate an ability to evaluate their methods of anatomic pathologic and laboratory medicine and an understanding of research methods.

6. Systems-Based Practice
   a. Residents are expected to demonstrate an understanding of health care delivery systems in the performance of anatomic and laboratory medicine examinations.

SECTION IV- INSTITUTIONAL REQUIREMENTS

A. The institution shall maintain a medical library containing texts, latest editions of medical journals, online access to training materials and other appropriate publication pertaining to training in pathology.

B. The institution shall provide such instruments and equipment that are essential to the conduct and learning of the specialty of anatomic pathology and laboratory medicine. These shall include, but not be limited to the following equipment: light microscopes including a multi-headed microscope, polarizing microscope, microtome, photographic equipment, computer, various laboratory analyzers, electrophoresis equipment, hematology analyzers, tissue processor, frozen section equipment.

C. The institution shall provide an annual self-evaluation mechanism to assure sufficient appraisal of scope and volume, the education curriculum, the faculty, the residents and quality of education. These shall include, but not be limited to the following facilities: autopsy suite, clinical laboratory, histology sectioning area, library, adequate work/office space, a computerized system for recording all procedures performed, appropriate teaching files.
SECTION V-PROGRAM REQUIREMENTS AND DESCRIPTION

The residency program in anatomic pathology and laboratory medicine is a four-year program. The program must include 18 months of formal training in anatomic pathology and 18 months of formal training in laboratory medicine. The remaining 12 months of the program may be a continuation of structured anatomic pathology and laboratory medicine education or, at the direction of the program director, may be devoted to a specialized facet of pathology. The program shall include the training and experience necessary to allow the resident to accept responsibility for patient care and integrate osteopathic philosophy and principles.

1. The general education content of the residency program shall include:

   1. The basic and allied sciences required to provide a broad education in anatomic pathology and clinical pathology, the opportunity to acquire techniques and methods of those disciplines, and experience with the consultative role of the pathologist in patient-care decision making.

      a. The subspecialty areas of anatomic pathology include the following: general surgical pathology, gastrointestinal pathology, endocrine pathology, dermatopathology, breast pathology, head and neck pathology, pulmonary pathology, neuropathology, genitourinary pathology, immunopathology, cytopathology and forensic pathology.

      b. The subspecialty areas in laboratory medicine include the following: clinical chemistry, hematology, oncology, microbiology, toxicology, molecular biology, genetics/cytogenetics, parasitology, transfusion medicine, immunohistochemistry, urinalysis, and coagulation medicine.

      c. The curriculum must include didactic and clinical training in all subspecialty areas as well as advanced training in the basic sciences (anatomy, physiology, histology, biochemistry, pharmacology, etc.)

      d. The training program shall consist of a series of 4 week rotations (blocks) for a series of 12 blocks per year for a total of 52 blocks. The areas of training shall consist of blocks as outlined below:

         ANATOMIC PATHOLOGY: autopsy-4 block; general surgical pathology-4 blocks; frozen section-8blocks; cytology-3blocks, GI pathology-1block; neuropathology-1block, pulmonary pathology-1block; forensic pathology-1block. Subtotal: 23 blocks

         Electives: 10 blocks (as approved by the program director)
LABORATORY MEDICINE: hematology and lymph node-5 blocks; transfusion medicine-4 blocks; clinical chemistry-3 blocks; microbiology-3 blocks; molecular genetics-2 blocks; cytogenetics-1 block; coagulation-1 block. Subtotal: 18 blocks

TOTAL: 52 blocks.

c. The resident must perform a minimum of 50 adult autopsies as well as a minimum of 10 stillborn autopsies and 10 pediatric autopsies. The resident must also attend/assist a minimum of 25 forensic autopsies.

e. The programs clinical case volume must be no fewer than 5000 surgical cases, 5000 cytology cases, 1000 bone marrow cases, 5000 transfusion cases, 1000 hematology cases, 1000 cytogenetic cases, 1000 molecular genetics cases and 1000 coagulation cases per year per resident. The laboratory medicine case volume must be sufficient to assure the full range of test methodologies and interpretations across all subspecialties of laboratory medicine.

g. The residents must perform procedures, interpret surgical and cytologic specimens and laboratory test results and render opinions regarding potential treatment, management and outcome. These activities are to be supervised and documented by the resident.

2. Clinical lectures, demonstration and resident participation in diagnosis and therapy of specific cases.

a. The resident must have specified reading assignments and participate in a monthly journal club.

b. The resident must attend a minimum of 10 clinical lectures per year, attend all tumor board conferences and present a minimum of 10 cases per year at tumor board conference. The resident must attend and participate in a minimum of 10 clinical case conferences per year.

c. The resident must attend and participate in all departmental tumor case and deferred case reviews and when appropriate provide/discuss additional testing options or follow up options.

d. The resident shall attend a minimum of 1 formal seminar in anatomic pathology or laboratory medicine per year.

3. Resident participation in diagnosis and management of cases under their individual auspices in the educational programs at the institution, under the supervision of the Program Director.
B. The residency program shall provide the resident opportunities for laboratory and departmental administrative activities in order to experience that responsibility.

C. The residency program should allow the resident to act as first assistant in all pathologic procedures.

D. The residency program shall provide continuing medical education in osteopathic principles and practice throughout the training program.

E. The residency program shall allow the resident to attend professional activities related to the specialty of anatomic pathology and laboratory medicine.

F. A program statement should be available to the resident and include the following:
   1. Description of the program’s educational goals and philosophies;
   2. List and description of all required rotations and their duration;
   3. List and description of elective rotations and their duration;
   4. Description of resident opportunities for teaching and research;
   5. Description of the manner in which residents and programs are evaluated and how such evaluations are used;
   6. Description of the manner in which residents are supervised;
   7. Duties and responsibilities of residents at each year of training;
   8. Teaching staff responsibilities for supervision and instruction of residents during their experiences.

G. Education in anatomic pathology must include autopsies, surgical pathology, cytopathology, pediatric pathology, dermapathology, forensic pathology, immunopathology, histochemistry, ultrastructure pathology, cytogenics, molecular biology, and other advanced diagnostic techniques as they become available.

H. Education in laboratory medicine must include microbiology (including bacteriology, mycology, parasitology and virology), immunopathology, blood banking/transfusion medicine, chemical pathology, cytogenics, hematology, coagulation, toxicology, medical microscopy urinalysis, diagnostic techniques and other advanced diagnostic techniques as they become available.

I. The program must provide instruction and experience in the major aspects of the
administration of a hospital laboratory including resident participation and interpretation of laboratory data as part of patient care decision-making, conferences, rounds, patient care consultation, management and direction of laboratory, quality assessment, data processing, teaching, and scholarly activities.

J. The residency training program must provide sufficient case load for wide experience and appropriate training of the resident with the following list considered a minimum of procedures for each area of training.

1. Anatomic Pathology

   a. Material available in the program for anatomic pathology must ensure that the residents have broad exposure to common and more unusual entities, develop diagnostic and problem solving proficiency, and evolve the necessary technical abilities to perform functions of an anatomic pathologist.

      i. The resident must be provided exposure to the more common and the rarer anatomic anomalies that may be encountered at adult, fetal and pediatric autopsy.

      ii. The resident must be exposed to the more common benign and malignant neoplasms as well as to their possible variants.

      iii. The resident must be exposed to the rarer benign and malignant neoplasms in each subspecialty area of anatomic pathology.

   b. The major components of the anatomic pathology program incorporate performance and responsibility for autopsies including forensic and stillborn cases. Surgical pathology specimens including operating room consultations must be adequate in number and variety to ensure competency in routine diagnostic cases as well as frozen section specimens. Examination of adequate and varied cytologic specimens must include exfoliated and aspiration specimens. See Section V.A.1.e for minimum number of cases.

2. Laboratory Medicine

   a. The volume and variety of material available in clinical pathology shall be sufficient to ensure comprehensive exposure to common and unusual entities, develop proficiency in diagnosis, problem solving, and the necessary technical skills to perform functions of a clinical pathologist. See Section V.A.1.e for minimum number of cases.

   b. The resident shall gain a working knowledge of all instrumentation utilized in each section of the clinical laboratory including the basic science principles behind the tests performed on each instrument.
3. Seminars, Conferences, and Teaching Responsibilities

Seminars and conferences shall be regularly scheduled to focus on the basic and applied medical sciences and include interdepartmental clinical correlation conferences. There shall also be regular and recurring formal clinical and teaching responsibilities according to the assigned laboratory service. There shall be participation in education of medical students, interns, residents, and other trainees. See Section V.A.2.b for minimum number of seminars and conferences.

SECTION VI - PROGRAM DIRECTOR/FACULTY REQUIREMENTS

A. Qualifications

The program director must be certified in anatomic pathology and laboratory medicine by the American Osteopathic Association through the American Osteopathic Board of Pathology or by the American Board of Pathology.

B. Responsibilities

1. The program director's authority in directing the residency program must be defined in the program documents of the institution.

2. The program director must work with other departments of the institution to assure cooperation in training of the residents in pathology.

3. The program director shall arrange affiliations and/or outside rotations necessary to meet the program objectives.

4. The program director shall provide the resident with all documents pertaining to the training program as well as the requirements for satisfactory completion of the program.

SECTION VII - RESIDENT REQUIREMENTS

During the training program, the resident must:

1. Submit an annual report to the American Osteopathic College of Pathologists within (30) days of the end of each training year.

2. Submit a formal paper, suitable for publication, based on investigative work during the training program.

3. Participate in professional activities relating to the specialty of anatomic pathology and laboratory medicine as approved by the program director.
4. Maintain a daily log of activities in anatomic pathology and laboratory medicine with a monthly summary of this log completed and filed with the program director and DME’s office.

B. **ADVANCED STANDING**

A resident may apply for up to 12 months of advanced standing for prior training received in an osteopathic residency. The resident’s previous training will be reviewed by the American Osteopathic College of Pathologists’ education committee. Based upon the committee’s decision, approval for up to 12 months of prior training may be granted towards the resident’s training in an anatomic pathology and laboratory medicine residency.

**SECTION VIII- EVALUATION**

The program director shall be required to submit quarterly program reports to the director of medical education and administrator of the institution. Annual reports shall be submitted to the American Osteopathic College of Pathologists within thirty (30) days of the completion of the training year.

The program director, at the direction of the American Osteopathic College of Pathologists, shall administer a written in service examination to each resident at the conclusion of the training year.