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AMERICAN OSTEOPATHIC ASSOCIATION

**Basic Standards for  
Residency Training in  
Surgery and the Surgical Subspecialties**

**American Osteopathic Association  
and  
American College of Osteopathic Surgeons**

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## **SECTION I. INTRODUCTION**

### **A. Definition**

- 1.1 These are the Basic Standards for Residency Training in Surgery and the Surgical Specialties as approved by the American Osteopathic Association (AOA) and the American College of Osteopathic Surgeons (ACOS). These standards are designed to provide the osteopathic surgical resident with advanced and concentrated training in Surgery and the Surgical Specialties and to prepare the resident for certification examination in their discipline.
- 1.2 The program must meet all the requirements for each discipline as defined in the AOA/ACOS Basic Standards for Residency Training in Surgery and the Surgical Specialties.

## **SECTION II. MISSION**

- 2.1 The mission of the osteopathic surgery and surgical specialties programs is to provide residents with comprehensive structured cognitive and procedural clinical education in both inpatient and outpatient settings that will enable them to become competent, proficient and professional osteopathic surgeons.
- 2.2 To train physicians to function as consultants in the surgery and the surgical specialties and to develop physicians qualified to teach basic osteopathic principles, to implement these concepts and to integrate them into undergraduate and postgraduate clinical programs.

## **SECTION III. THE EDUCATIONAL PROGRAM GOALS**

An organized, comprehensive, and effective curriculum must be documented and implemented, which meets or exceeds the model ACOS curriculum for general surgery and the applicable specialties, and which is based upon a philosophy of competence in practice and excellence in patient care.

- 3.1 The following components of the educational program must be well-documented and based upon the ACOS model curriculum:
  - a. The didactic program must include contemporary surgical knowledge with special emphasis on surgical science. Instruction in medical ethics, interpersonal skills, and practice management must be included in the curriculum.
    - i. A variety of academic conferences and lectures must be documented, to include, for example, formal didactic conferences, morbidity and mortality meetings, and journal club, as well as seminars, workshops, and conferences that may be provided outside the program.
    - ii. Each resident must complete the resident scholarly activity/scientific and research component (Reference Appendix Four.)
  - b. The clinical component must include a sufficient scope, volume, and variety of operative experience complemented by pre-operative, intra-operative, and post-operative care of patients to ensure that residents are provided with the necessary knowledge, technical skills, and judgment required for clinical practice.
    - i. Written objectives for each clinical assignment and for each level in the program must be developed and implemented. Both the residents and the faculty must receive copies of the goals and objectives prior to each assignment.

- ii. The clinical component must include education and exposure to the evolving diagnostic and therapeutic methods, such as, laser, ultrasound, endoscopic and laparoscopic techniques and other applicable leading-edge technology.
  - iii. The operative experience for each resident must be documented in an AOA-approved format surgical operative log which reflects all assignments during the surgery or surgical specialty program. The adequacy of each resident's experience must be evaluated based upon the information submitted in these logs. (Reference the required minimum numbers for each surgical specialty in Standards V.1 – V.7.)
  - iv. The surgical competence of each resident must be evaluated based upon the number of surgeries performed gained through direct participation.
  - v. The program director and the faculty must ensure that each resident is provided with direct and progressively responsible patient management that will result in the demonstration of competence in technical skills and clinical decision-making upon successful completion of the program.
  - vi. Outpatient clinics under supervision of the department of surgery must be available for resident education. Alternatively, this activity may be accomplished by pre-operative and post-operative care in surgeon offices.
- 3.2 AOA competencies: The residency program must require its residents to obtain competencies in the following areas to the level expected of a new practitioner. Toward this end, programs must define the specific knowledge, skills, and attitudes required and provide educational experiences as needed for their residents to demonstrate (Reference Appendix Five):
- a. Patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
  - b. Medical knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.
  - c. Practice-based learning and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.
  - d. Interpersonal and communication skills that result in information exchange and teaming with patients, their families, and other health professionals.
  - e. Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
  - f. Systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of healthcare and the ability to call on system resources to provide care that is of optimal value.
  - g. Integration of osteopathic principles and osteopathic medical management throughout the training program. (See Appendix Five.)

## SECTION IV: INSTITUTIONAL REQUIREMENTS

### A. Institutional Support

- 4.1 The surgical facilities at the primary training institution and affiliated sites must provide a sufficient scope, volume, and variety of operative experience to ensure that residents are provided with the necessary knowledge, technical skills, and judgment required for clinical practice. (See Section V for specialty specific requirements.)
- a. The balance of education to service must be strictly monitored for all clinical assignments.
  - b. An experience with the continuity of patient care, i.e., pre-operative, intra-operative, and post-operative patient care, must be provided at both the primary training institution and at affiliated sites.
  - c. Program directors must be afforded protected time with associated compensation, secretarial support and office space to complete the administrative and operational requirements of the position. Protected time includes, but is not limited to: administrative, didactic and meeting requirements.
  - d. Institutional support for the program and program director must be documented and include administrative support.
- 4.2 Each resident must be provided with a handbook, which must include, but is not limited to, the following policies and procedures and items referenced in the AOA Basic Document:
- a. The model ACOS Curriculum for Surgery and Surgical Specialties, including the program goals and objectives for the general surgery and the applicable surgical specialty training program for each assignment and for each level in the program.
  - b. All applicable policies and procedures of the sponsoring institution and the primary training institution, such as, work hours, call, and leave policies; financial arrangements, including housing, meals, and benefits; resident supervision and evaluation; specifics of contract renewal; and disciplinary, due process, and appeal policies.

### B. Discipline Specific Requirements

- 4.1 **General Vascular Surgery:** The primary training institution must provide the following support resources:
- a. At least 150 vascular procedures per resident annually.
  - b. Access to a critical care unit, coronary care unit, a pulmonary laboratory, and a vascular laboratory.
- 4.2 **Cardiothoracic:** The primary training institution must serve as the primary clinical site and document the capability to provide the required educational experiences in the specialty, including at minimum:
- a. Institutional support for at least two (2) cardiothoracic residents.
  - b. 130 major procedures per resident per year.
- 4.3 **Surgical Critical Care:** The surgical critical care unit of the primary training institution must serve as the primary clinical site and document the following:
- a. A minimum of eight beds dedicated to surgical critical care.

- b. A sufficient volume of clinical experience to ensure an average daily census of five patients per resident per clinical day.
  - c. Institutional support for at least two (2) Surgical Critical Care residents.
- 4.4 **Neurological Surgery:** A minimum of 500 major neurological surgery procedures per year per finishing resident must be performed within the total clinical facilities available to the training program.
- a. For instance, the cases should be appropriately distributed among cranial, extracranial, spinal, and peripheral nerve surgical procedures and should have a well-balanced spectrum of neurological surgery in both adults and children.
  - b. This spectrum must include craniotomies for trauma, neoplasms, aneurysms, and vascular malformations; transsphenoidal and stereotaxic surgery (including radiosurgery); pain management; and spinal procedures of a sufficient number and variety using modern techniques.
  - c. There must be clinical resources for the education of neurological surgery residents in anesthesiology, critical care, emergency medicine, endocrinology, ophthalmology, orthopedics, otolaryngology, pathology, and psychiatry.
  - d. There must be sufficient patients admitted each year to ensure that the resident participates in the care of patients suffering from the full spectrum of neurosurgical diseases (see standard V.5.)
  - e. The institution must provide institutional resources to train at least one resident per year of training.
- 4.5 **Plastic and Reconstructive Surgery:** The primary training institution and affiliated sites must document the following necessary educational experiences:
- a. Support for at least three (3) plastic surgery resident positions.
  - b. Document at least 300 major plastic surgery procedures per resident per year.
- 4.6 **Urological Surgery:** The primary training institution must provide support for a minimum of 200 major urological surgery procedures per resident per year.

## **SECTION V: Program Requirements and Content**

### **A. General Surgery**

Education in the specialty of general surgery reflects a core education in the basic sciences and cognitive and technical skills, as well as the development of mature surgical judgment in the diagnosis and management of surgical patients.

- 5.1 The general surgery residency program must provide a meaningful education that prepares the residents upon graduation to meet certification requirements of the AOA through the American Osteopathic Board of Surgeons and to demonstrate the following competencies.
- a. Cognitive
    - i. Programs must integrate the basic sciences applicable to general surgery with clinical experiences in a progressive manner. Basic sciences include, but are not limited to: applied surgical anatomy and surgical pathology; the elements of wound healing;

- homeostasis; shock and circulatory physiology; hematologic disorders; immunobiology and transplantation; oncology; surgical endocrinology; surgical nutrition; fluid and electrolyte balance; and the metabolic response to injury including burns.
- ii. Develop critical thinking skills which result in making decisions for patient management.
- iii. Understand and integrate research into the practice of general surgery.
- iv. Read, interpret, and participate in clinical research/scholarly activity.
- b. Psychomotor and technical skills
  - i. Demonstrate osteopathic diagnoses and manipulative therapy in the care of patients.
  - ii. Demonstrate proficiency with the necessary technical skills required for the practice of general surgery.
  - iii. Demonstrate the ability to provide patient management responsibilities based upon knowledge of the basic and clinical sciences.
- c. Communication skills
  - i. Demonstrate the ability to collaborate with colleagues and allied healthcare professionals.
  - ii. Educate patients and their families concerning healthcare needs.
  - iii. Demonstrate the ability to teach other medical care providers within the context of residency education.
- d. Practice management
  - i. Demonstrate leadership and management skills.
  - ii. Provide cost conscious care to patients.
- e. Professional attitudes and abilities
  - i. Demonstrate a broad understanding of the role of general surgery as it relates to other medical disciplines.
  - ii. Develop the skill of lifelong learning in medical education and as related to a professional career in the field to promote personal and professional growth.
  - iii. Demonstrate the ability to provide sound ethical practice judgments.
  - iv. Participate in professional and community organizations.
  - v. Apply the principles of evidence-based medicine to their professional practice.
- 5.2 Each resident must attend at least one ACOS Annual Clinical Assembly during their residency training.
- 5.3 The length of the general surgery residency program must be five (5) years which includes an AOA-approved OGME-1R year (Reference Appendix Two).
- 5.4 No more than a total of twelve (12) months of the five-year program may be scheduled away from the primary training institution. Short courses of two-weeks or less are exempted.
- 5.5 The final twelve months of the five-year program must be spent performing the functions as chief resident in approved institutions, under supervision, demonstrating advanced-level responsibilities in patient care.
- 5.6 No more than a total of four months of the final four years of the five-year program may be allocated to non-surgical disciplines such as internal medicine, anesthesiology, or surgical

pathology.

- 5.7 The program curriculum must meet or exceed the ACOS model curriculum including the following experiences:
- a. The management of patients with severe and complex illnesses and major injuries in acute care units.
  - b. Experience with evolving advanced diagnostic, therapeutic and interventional measures.
- 5.8 The program must provide each resident with a sufficient scope, volume, and variety of surgical experience in general surgery as noted below.
- a. Each resident must document, by program completion, participation, under appropriate supervision, a minimum of 750 major surgical procedures, as surgeon or first assistant.
  - b. During the resident's final year, at least 150 major surgical procedures as senior chief (SC) must be across the spectrum of general surgical practice. Up to 50 of these cases may be logged as teaching assistant (TA) with the junior resident logging the procedure.
  - c. During each successive year of the program, progression of surgical responsibility must be demonstrated in adequate scope, volume, and variety of surgical experience.
  - d. Logging more than 400 procedures by a resident in a training year, 12 month period, will be considered excessive and require supporting documentation of adequate didactic attendance as described in Standard III.3.B.
- 5.9 The program must provide supportive, didactic educational learning activities, as well as clinical learning experiences and hands on experience in the pre-operative, operative and post-operative care of surgical patients to include:
- a. Diseases or dysfunction of skin and soft tissue, burns, wound care and breast. (25 majors are necessary to complete program. Logging more than 50 cases in one year will be considered excessive.)
  - b. Diseases or dysfunction of the head and neck. (25 majors are required to complete the program. Logging more than 50 cases in one year will be considered excessive.)
  - c. Diseases or dysfunction of the abdomen. To include:
    - i. Alimentary tract (72 majors are required to complete program. Logging more than 144 in one year will be considered excessive.)
    - ii. Liver (4 majors are required to complete program. Logging more than 8 in one year will be considered excessive.)
    - iii. Pancreas (3 majors are required to complete program. Logging more than 6 in one year will be considered excessive.)
    - iv. Spleen (3 majors are required to complete the program. Logging more than 6 in one year will be considered excessive.)
    - v. Biliary tree
    - vi. Abdominal wall
  - d. Disease or dysfunction of the endocrine system. (8 majors are required to complete the program. Logging more than 16 in one year will be considered excessive.)
  - e. Disease or dysfunction of the vascular system. (44 majors are required to complete the

- program. Logging more than 88 in one year will be considered excessive.)
- f. Disease or dysfunction of the thoracic cavity to include esophagus, lung plura and cardiac, exclusive of pneumothorax. (15 majors are required to complete program. Logging more than 30 in one year will be considered excessive.)
  - g. Operative and non-operative management of trauma, emergency surgery, interventions of surgical scope, and surgical critical care.
    - i. Nonoperative trauma. (20 cases are required to complete program.)
    - ii. Operative trauma. (10 majors are required to complete program.)
  - h. Diseases and dysfunctions of gynecologic system
    - i. Endoscopy and laparoscopy
      - i. Endoscopy (85 upper endoscopies are required and 50 colonoscopies are required to complete the program. Logging more than 170 upper endoscopies and/or 100 colonoscopies in one year will be considered excessive and warrant review and explanation.)
      - ii. Basic laparoscopy (60 cases are required to complete the program. Logging more than 120 cases in one year will be considered excessive and warrant review and explanation.)
      - iii. Advanced laparoscopy (25 cases are required to complete program. Logging more than 50 cases in one year will be considered excessive and warrant review and explanation.)
    - j. Diseases or dysfunction of the urologic system.
  - l. Pediatric surgical care. (20 major cases are required to complete the program. Logging more than 50 in one year will be considered excessive and warrant review and explanation.)
  - l. Plastic and reconstructive surgery.
- 5.10 General Surgery residency programs are required to administer the Annual ACOS General Surgery In-Service Examination to general surgery residents.
- a. Residency training programs not adhering to the ACOS proctor instructions are subject to a fine set by the ACOS RESC and/or on-site inspection with a possibility of program probation. The penalty fee will be billed to the residency training program.

## **B. General Vascular Surgery**

Training in general vascular surgery builds upon the core education of general surgery to provide the knowledge, skills, and abilities to develop proficiency and mature surgical judgment in the diagnosis and management of diseases of the arterial, venous, and lymphatic circulatory systems, exclusive of the vessels of the heart and intra-cranial vessels.

- 5.1 The general vascular residency program must provide a meaningful education that prepares residents upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons and to demonstrate these competencies:
- a. Cognitive skills
    - i. Integrate the sciences applicable to general vascular surgery with clinical experiences



Training in cardiothoracic surgery encompasses the operative, peri-operative, and critical care of patients with pathological conditions within the chest including pulmonary, esophageal, mediastinal, chest wall, diaphragm, and cardiothoracic disorders of patients in all age groups as well as the critical care and trauma management of patients.

- 5.1 A cardiothoracic surgery residency program must provide a meaningful educational experience that prepares the resident upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons (AOBS) and to demonstrate the following competencies:
- a. Cognitive
    - i. Correlate the pathologic and diagnostic aspects applicable to cardiothoracic surgery with clinical experiences in a progressive manner consistent with the cardiothoracic curriculum.
    - ii. Develop critical thinking skills which result in making decisions for patient management.
    - iii. Understand the relevance of, and interpret, research related to the practice of cardiothoracic surgery.
    - iv. Read, interpret, and participate in clinical and or basic science research.
  - b. Psychomotor and technical skills
    - i. Demonstrate osteopathic principles, diagnoses and therapies in the care of cardiothoracic patients.
    - ii. Demonstrate proficiency with the necessary technical skills required for the practice of cardiothoracic surgery. Proficiency must be progressive as outlined in the cardiothoracic curriculum of ACOS.
    - iii. Demonstrate the ability to provide progressive patient management responsibilities based upon knowledge of the basic and clinical sciences.
  - c. Communication skills
    - i. Demonstrate the ability to collaborate with colleagues and allied healthcare professionals.
    - ii. Educate patients and their families concerning healthcare needs.
    - iii. Demonstrate the ability to teach medical students, interns, other residents, and allied healthcare staff within the context of residency education.
  - d. Practice management
    - i. Demonstrate leadership and management skills.
    - ii. Provide cost-effective care to patients.
  - e. Professional attitudes and abilities
    - i. Demonstrate a broad understanding of the role of cardiothoracic surgery as it relates to other medical disciplines.
    - ii. Appreciate the value of lifelong learning in medical education and as related to a professional career in the field.
    - iii. Demonstrate the ability to provide sound ethical, and legal judgments.
    - iv. Participate in continuing education to promote personal and professional growth.
    - v. Participate in community and professional organizations.
    - vi. Apply the principles of evidence-based medicine to their professional practice.

- 5.2 The length of the cardiothoracic residency program is two years following successful completion of an AOA-approved general surgery residency program which include an OGME-1R year (Reference Appendix Two).
- a. Although clinical experiences may be achieved by formal affiliation with other institutions, no more than a total of six months may be assigned outside the primary training institution. Short courses of two weeks or less do not apply to the six-month limit.
  - b. The final twelve months of the two-year program must be spent as chief resident in approved institutions, under supervision, demonstrating advanced-level responsibilities for complete cardiothoracic surgical patient management.
- 5.3 The cardiothoracic surgery curriculum must meet or exceed the ACOS model curriculum and must include the following structured learning experiences:
- a. Clinical learning experiences must be provided in the pre-operative, intra-operative, and post-operative care of patients with diseases of the heart and great vessels; lung, pleura and trachea; esophagus, mediastinum, diaphragm, and chest wall.
  - b. Additional experiences include: cardiopulmonary bypass physiology and mechanics; pulmonary function examination; non-invasive peripheral vascular examination; chest x-ray, MRI and CT scan, PET scan interpretation; cardiac catheterization interpretation; cardiothoracic critical care management to include ventilator management; fluid and electrolyte management; clinical hematology, coagulation, and blood component replacement therapy; pharmacological and mechanical assisted management of hemodynamic instability and support and cancer chemotherapy and radiation therapy.
  - c. Electives in organ transplantation and mechanical cardiac assist devices are highly desirable.
- 5.4 The program must provide each resident with a sufficient scope, volume, and variety of clinical experience in cardiothoracic surgery as noted below.
- a. The standards required of individuals for successful completion of a program in cardiothoracic surgery and to qualify for entrance into the certification process by the American Osteopathic Board of Surgery must be through one of two primary pathways; a cardiothoracic surgery pathway or a general thoracic surgery pathway.
  - b. At the completion of the program, each resident must document participation in 255 major surgical procedures, performed by the resident as surgeon under supervision in the following categories:

| <b>Cardiothoracic Pathway</b>    | <b>Current Case Requirements</b>   | <b>General Thoracic Pathway</b>                |
|----------------------------------|--|--|
| 20<br>10<br>10                   | Congenital Heart Disease<br>Primary<br>First Assistant   | 10*<br>*All cases can be as<br>First Assistant |
| 150<br>50<br>80<br>15<br>5<br>15 | Adult Cardiac<br>Acquired Valvular Heart<br>Myocardial Revascularization<br>Re-Operation<br>Aorta<br>Other | 75<br>20<br>40<br>5<br>0<br>15                 |

|            |                           |            |
|------------|---------------------------|------------|
| 50         | Lung, Pleura, Chest Wall  | 100        |
| 30         | Pneumonectomy, Lobectomy, | 50         |
| 20         | Segmentectomy             | 50         |
| 5          | Other                     |            |
|            | Mediastinum (resection)   | 10         |
| 15         | Esophageal                | 30         |
| 10         | Resection                 | 20         |
| 0          | Benign Esophageal Disease | 5          |
| 5          | Other                     | 5          |
| 15         | VATS                      | 30         |
| <b>255</b> | <b>Total</b>              | <b>255</b> |
| 40         | Endoscopy                 | 90         |
| 20         | Bronchoscopy              | 40         |
| 10         | Esophagoscopy             | 25         |
| 10         | Mediastinoscopy           | 25         |
| 100        | Consultation Experience   | 100        |
| 50         | New Patient               | 50         |
| 50         | Follow-up                 | 50         |

#### D. Surgical Critical Care Standards

Training in surgical critical care deals with the complex surgical and medical problems of the critically ill surgical patient, recognizing the complex pathophysiology of physical illness and the multidisciplinary approach necessary to the successful outcome for the patient.

- 5.1 A surgical critical care residency program must provide a meaningful education that prepares the resident upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons (AOBS) and to demonstrate the following competencies:
- a. Cognitive
    - i. Demonstrate the ability to develop a comprehensive plan of care for any critically ill patient, integrating the services of multidisciplinary team, including specialists and sub-specialists and directing the scope of their involvement to assure high quality of care for the patient without unnecessary duplication of services.
    - ii. Demonstrate the ability to apply knowledge and understanding of each consultative specialty to provide competent patient care.
  - b. Psychomotor and technical skills
    - i. Integrate osteopathic principles and practices throughout the course of training, when indicated.
    - ii. Demonstrate technical skills in surgical critical care.
    - iii. Provide competent physiologic management of the critically ill surgical patient in the intensive care and intermediate care units.
  - c. Communications skills
    - i. Recognize the importance of problem-solving and conflict resolution among medical staff, resident staff, nursing staff, ancillary staff, and patients and their families.
  - d. Practice management
    - i. Demonstrate the ability to manage a surgical critical care unit.

- ii. Demonstrate the ability to cooperate with other healthcare professionals from a wide variety of different medical specialties in a multidisciplinary team. The role must be either team manager or team member based upon need to deliver quality care.
- iii. Demonstrate the ability to allocate scarce resources to include triage decisions both for admission and discharges as a provider and as the unit director.
- e. Professional attitudes and abilities
  - i. Demonstrate the ability to treat the patient and family as beings and not just a disease entity.
  - ii. Demonstrate an appreciation for the psychosocial aspects of critical surgical illness to prepare the resident to deal with the multifactorial impact of the illness on both the patient and the family.
  - iii. Demonstrate the ability to initiate or withdraw physiologic support while understanding the needs and concerns of diverse cultures and traditions relating to death and to medical care.
  - iv. Act as an educational resource for the institution and community.
  - v. Assume the role of educator as preparation for a career-long obligation as a surgical educator.
  - vi. Publication of clinical or basic science research in recognized journals and periodicals is strongly encouraged.

5.2 The length of the surgical critical care residency program is twelve (12) months following successful completion of an AOA-approved general surgery residency program which includes the completion of an AOA-approved common surgical OGME-1R year (Reference Appendix Two).

- a. Nine months of the twelve-month program must be dedicated exclusively to the management of adult critically ill surgical patients in the clinical setting.
- b. No more than three-months of the twelve-month program may be assigned outside the program. Examples include: pediatric critical care, burn unit, transplant service, and research.
- c. Elective assignments must be approved by the program director to permit the resident to pursue special interests.

5.3 The program curriculum must meet or exceed the ACOS model curriculum and must provide residents with an advanced education in critical care management, including the following:

- a. The management of complicated critical care patients in a multi-disciplinary environment and to function as a unit director following completion of the program.
- b. Knowledge of the physiology, pathophysiology, and pathology of diseases involving the cardiovascular, respiratory, renal, gastrointestinal, hepatic, central nervous, immune, endocrine, and hematologic systems, as well as in the therapy of diseases of each system; complex system interrelationships and single system failure.
- c. The role of hypermetabolism, the various mediators, and the pathophysiology and therapy of multiple organ system failure.
- d. Current treatment modalities and technologically current equipment used in the care of critically ill patients.

- e. Physiologic support for the critically ill surgical patient, including:
  - i. Ventilatory management with and without assist devices including standard ventilatory modes, high frequency ventilatory modes, and extracorporeal oxygenation.
  - ii. Pharmacological and mechanical cardiovascular support, for example, the intra-aortic balloon pump, left ventricular assist devices.
  - iii. Renal support, for example, the various forms of dialysis, such as continuous arterial venous hemofiltration, peritoneal dialysis, and hemodialysis.
  - iv. Immune system support, including pharmacological interventions aimed at understanding the immune consequences of various other therapies and the endocrine response to injury and illness.
  - v. Metabolic nutritional assessment and support including enteral and parenteral nutrition and nutritional assessment.
- 5.4 Pharmacologic intervention, including: inotropes, pressors, antibiotics, muscle paralyzing agents, sedatives and narcotics, and their role in assisting recovery or creating morbidity.
- 5.5 Knowledge of physiologic monitors and the technical skills to insert, calibrate, troubleshoot, and acquire data, for example: electrocardiogram, arterial lines, pulmonary artery catheters, oxymetric catheters, intracranial pressure monitors, compartment pressure monitors, indirect calorimetry.
- 5.6 The ability to evaluate data from multiple sources into a coherent picture of the pathophysiology of the disease.

## **E. Neurological Surgery**

Neurological surgery is the surgical specialty that provides operative and non-operative care to patients of all ages with the management of disorders of the central, peripheral, and autonomic nervous systems, including their support structures and vascular supply. The neurological surgery residency training program must provide a meaningful education that prepares the resident upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons (AOBS).

- 5.1 Neurological surgery is a discipline of medicine and the specialty of surgery that provides operative and non-operative management (i.e., prevention, diagnosis, evaluation, interpretation of imaging, treatment, critical care, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply; the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis; and the operative and non-operative management of pain. As such, Neurological surgery encompasses: the surgical, nonsurgical and stereotactic radiosurgical treatment of adult and pediatric patients with disorders of the nervous system; disorders of the brain, meninges, skull, including skull base, and their blood supply, including the surgical and endovascular treatment of disorders of the intracranial and extracranial vasculature supplying the brain and spinal cord; disorders of the pituitary gland; disorders of the spinal cord, meninges, and vertebral column, including those that may require treatment by fusion, instrumentation, or endovascular techniques; and disorders of the cranial, peripheral, and spinal nerves throughout their distribution. The program must encompass and embrace these features.

- 5.2 The required length of a neurosurgery residency program is 72 months, which includes an AOA-approved common surgical OGME-1R year (Reference Appendix Two).
- a. Programs that extend the residency beyond 72 months must present a clear educational rationale consonant with the program requirements and the objectives of the residency. The program director must obtain the approval of the sponsoring institution and the Review Committee prior to implementation and at each subsequent accreditation review of the program.
  - b. During the first 36 months of education residents must have a minimum of three months of structured education in a neurology program.
  - c. The program must provide 36 months of clinical neurological surgery at the sponsoring institution or one of its approved participating sites.
  - d. The remaining time not devoted to clinical neurology and neurosurgery must be spent in the study of the basic sciences, neuroradiology, neuropathology, or other subject matter related to the neurosciences. These topics must be agreed upon by individual residents and the program director.
  - e. Residents must spend a 12-month period of time performing the duties as chief resident on the neurological surgery clinical service in the sponsoring institution under supervision, and demonstrating advanced-level responsibilities.
- 5.3 Each resident must document by program completion, participation, under supervision, of a minimum of 400 major neurosurgical procedures, 200 of which must be cranial and must represent a well-balanced spectrum of neurological surgery in both adults and children. This spectrum should include craniotomies for trauma, neoplasms, aneurysms, and vascular malformations; extracranial carotid artery surgery; transsphenoidal and stereotaxic surgery (including radiosurgery); pain management; and spinal procedures of a sufficient number and variety using modern techniques.
- Note: A resident logging this number of cases does not imply mastery of a procedure or competency. Competency is determined by the program director and the resident must be evaluated accordingly.
- 5.4 The program curriculum must meet or exceed the ACOS model curriculum. There must be an ~~an~~ distribution of the following procedures:
- a. Cranial,
  - b. Extracranial,
  - c. Peripheral nerve, and
  - d. Spinal

## **F. Plastic and Reconstructive Surgery**

Training in plastic and reconstructive surgery deals with the resection, repair, replacement and reconstruction of the integument and its underlying anatomic systems. Special knowledge and skill in the design and transfer of flaps, tissue transplantation, and the reimplantation of tissues and structures are also components of the specialty.

- 5.1 The plastic and reconstructive surgery program must provide a meaningful education that prepares the resident upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons (AOBS) and to demonstrate the

following competencies:

- a. Cognitive
    - i. Integrate the basic sciences applicable to plastic surgery with progressive clinical experiences obtained over the course of the program.
    - ii. Demonstrate critical thinking and problem-solving skills.
    - iii. Demonstrate the ability to interpret and participate in clinical research.
  - b. Psychomotor and technical skills
    - i. Demonstrate the integration of osteopathic principles and manipulative therapy, in the diagnosis and treatment of assigned patients.
    - ii. Demonstrate competent clinical patient care in a progressive manner, culminating in the ability to provide comprehensive patient care.
    - iii. Demonstrate proficiency in psychomotor skills required of a competent plastic surgeon.
  - c. Communications skills
    - i. Collaborate and share knowledge with colleagues and allied healthcare professionals.
    - ii. Educate patients and their families concerning healthcare needs.
  - d. Practice management
    - i. Make sound, ethical, and legal judgments in the practice of plastic surgery.
    - ii. Provide cost-effective care to plastic surgery patients.
  - e. Professional attitudes and abilities
    - i. Promote a broad understanding of the role of plastic and reconstructive surgery as it relates to other medical disciplines.
    - ii. Develop professional leadership and management skills.
    - iii. Foster lifelong learning in medical education resulting in personal and professional growth.
    - iv. Develop interest in and understanding of research in the specialty.
- 5.2 The plastic surgery residency program must be three years duration for the independent program and six years duration for the integrated program. All prerequisites must be taken within programs accredited by the American Osteopathic Association.
- a. Residents entering the independent program must complete three years of concentrated plastic and reconstructive surgery education after successful completion of one of the following prerequisites:
    - i. Completion of three AOA-approved years of general surgery which includes an AOA-approved common surgery OGME-1R year (Reference Appendix Two); or
    - ii. Completion of an AOA-approved otolaryngology program; or
    - iii. Completion of an AOA-approved orthopedic surgery program.
- 5.3 Residents entering the integrated program must complete six (6) years of plastic and reconstructive surgery education which includes an AOA-approved common surgery OGME-1R year (Reference Appendix Two).
- a. Thirty-six months of the integrated program must be concentrated in plastic and reconstructive surgery education.

- 5.4 The program curriculum must meet or exceed the ACOS model curriculum and must include:
- a. No more than a total of twenty-five per cent (25%) of the three-year plastic surgery program may be spent in non-affiliated training sites. Short courses of two weeks or less will not apply.
  - b. Training in the basic sciences with structured learning and clinical experience in: musculoskeletal biomechanics, surgical physiology, and anatomy; fluids and electrolytes, shock, and resuscitation; burn therapy, wound healing; pathology, microbiology, immunology, and hematology; nutrition; laser safety; micro lab; facial plating; and advanced rhinoplasty.
  - c. Clinical learning and experience in the pre-operative, intra-operative, and post-operative care of patients in the following categories:
    - i. Congenital deformities.
    - ii. Malignancies and benign tumors of the head and neck, skin, and soft tissue.
    - iii. Trauma and acquired deformities of the face, trunk, and lower extremity.
    - iv. Aesthetic procedures.
    - v. Surgery of the breast.
    - vi. Surgery of the hand.
    - vii. Burns.
    - viii Microsurgery.
  - d. Subspecialty electives may include: anesthesiology, craniofacial surgery, urological surgery, laser techniques, orthopedic surgery, pediatric plastic surgery, surgical oncology, oral and maxillofacial surgery, oculo plastic surgery, and gender reassignment surgery.
- 5.5 The program must provide each resident with a sufficient scope, volume, and variety of clinical experience in plastic surgery as noted below.
- a. Each resident must document at program completion, participation, under supervision, a minimum of 900 major surgical procedures, as surgeon or assistant.
  - b. The final twelve months of the program must be spent performing the duties as a chief resident in approved institutions, under supervision, demonstrating advanced-level responsibilities.

## **G. Urological Surgery**

Urological surgery is the medical and surgical specialty involving urological, adrenal and disorders of sexual function in both sexes.

- 5.1 The urological surgery program must provide a meaningful education that prepares the resident upon graduation to meet certification requirements of the AOA through the American Board of Osteopathic Surgeons (AOBS) and to demonstrate the following competencies:
- a. Cognitive
    - i. Demonstrate knowledge and integration of the sciences applicable to urologic surgery with clinical experiences in a progressive manner.
    - ii. Demonstrate critical thinking and problem-solving skills.

- iii. Demonstrate the ability to interpret and participate in clinical research/scholarly activity.
  - b. Psychomotor and technical skills
    - i. Demonstrate osteopathic diagnoses and manipulative therapy in the care of patients.
    - ii. Demonstrate competent clinical patient care in a progressive manner, resulting in the ability to demonstrate whole patient management.
    - iii. Demonstrate proficient psychomotor skills required of a competent urologic surgeon.
  - c. Communications skills
    - i. Collaborate and share knowledge with colleagues and allied healthcare professionals.
    - ii. Educate patients and their families concerning healthcare needs and the resources available to meet these needs.
  - d. Practice management
    - i. Develop legal policies and procedures related to urological surgery clinical practice.
    - ii. Provide cost-conscious care within the urological surgery practice.
  - e. Professional attitudes and abilities
    - i. Demonstrate relationships with other medical disciplines to gain a broader understanding of urological surgery.
    - ii. Develop professional leadership and management skills in the practice of urological surgery.
    - iii. Provide a structure for lifelong learning in medical education and a model for long-term personal and professional growth.
    - iv. Understand the role and apply it to the principles of urological surgery.
    - v. Demonstrate clinical and ethical judgments in the practice of urologic surgery.
- 5.2 The length of the urological surgery training program is five years which includes an AOA-approved common surgical OGME-1R year (Reference Appendix Two) and four years of urological surgery.
- 5.3 The program curriculum must meet or exceed the model ACOS curriculum and must include the following experiences:
  - a. The program must provide non-surgical and surgical care of patients with all diseases which fall within the scope of urologic surgery. This curriculum must include pre-operative, intra-operative and post-operative learning and surgical experience in minimally invasive surgical procedures/laparoscopy, robotics, urologic surgical oncology, pediatric surgery, urological lithotripsy, laser surgery, and nephrology as it relates to urologic practice.
  - b. No more than twenty-five per cent (25%) of the urological surgery program may be spent in non-affiliated training sites.
  - c. The final twelve months of the urological surgery program must be spent as chief resident in approved institutions, under supervision, and demonstrating advanced-level responsibilities in the specialty. No more than two months of the final training year may be spent by the resident in electives not at the base location at the discretion of the program director.

- d. Each resident must document by program completion, participation, under supervision, an average of 125 major surgical procedures, as surgeon or first assistant.

## **SECTION VI: PROGRAM DIRECTOR AND FACULTY**

### **A. Program Director and Faculty**

The educational program must provide faculty and support personnel to accomplish its stated purposes, to provide day-to-day continuity of leadership, and to fulfill all educational responsibilities inherent in meeting the goals of the program.

- 6.1 The faculty must be composed of general surgeons, surgical specialists, and other physicians engaged in the active practice of surgery.
- 6.2 Qualifications of the departmental chair, program director, and faculty:
  - a. The chair of the department of surgery must be certified in general surgery by the AOA through the American Osteopathic Board of Surgery (AOBS) or the American Board of Surgery (ABS).
  - b. The program director must be clinically active at the institution and in the program for which he is director.
  - c. Reference Section B for additional specialty-specific qualifications
  - d. Within consortium programs site directors must meet all the qualifications of the program director
- 6.3 The program director and the physician faculty must be academically and professionally qualified, maintain professional expertise appropriate to their educational and clinical responsibilities and be engaged in the active practice of surgery.
  - a. Both the program director and the faculty must affirm their commitment to the residency program by providing a quality education in all areas of the curriculum and by demonstrating active participation in the following educational activities:
    - i. Resident supervision and instruction in the operating room, at the bedside, and in ambulatory settings.
    - ii. Participation and teaching in academic conferences.
    - iii. Participation in resident and program evaluation activities.
    - iv. Faculty development with an emphasis in adult pedagogy.
  - b. The program director must have three years experience in the appropriate specialty, after certification.
    - i. Membership in the American College of Osteopathic Surgeons.
    - ii. Be clinically active staff member in the department of surgery of the sponsoring institution or the primary training institution and in the program for which he is director.
    - iii. Demonstrate clinical, educational, teaching, administrative, and leadership skills.
    - iv. Must maintain fulfillment of continuing medical education, such as appropriate State Board, AOA, and other professional society activities, including continuing education in medical and surgical teaching skills and faculty development activities.

- v. Must participate in community and professional organizations.
  - vi. Certification criteria. (Reference Section VI. B for specialty-specific certification criteria.)
  - c. Non-physician faculty must be qualified in their area of expertise.
  - d. Exceptions to the qualifications, such as the special circumstances of non-AOA certification, must be submitted to the ACOS RESC for review and approval.
- 6.4 The general responsibilities of the program director must include, but are not limited to the following activities:
- a. Administrative and educational responsibility for the conduct of the program consistent with the model ACOS curriculum.
  - b. Arranging for affiliated training sites and electives to meet program objectives, consistent with approval of the DME.
  - c. Document compliance with the standards, policies, and procedures of the AOA.
  - d. Submitting reports as required by the AOA Approval Procedures. (Reference Section IV.)
  - e. Ensure resident completion and submission of the resident annual reports to the ACOS. (To include the annual resident report checklist for program directors.)
  - f. Complete and submit the program director's annual evaluation of the program.
  - g. Preparing the required documentation for, and participation in, the AOA site visit process.
  - h. Coordinate educational administrative activities of the training program to include resident schedules and resident assignments for educational activities.
  - i. Ensuring that all components of the training program are evaluated as required. (Reference Section VIII.)
  - j. Encourage residents to apply for ACOS resident membership status.
  - k. Attend the ACOS Osteopathic Surgical Educators' Seminar at least once every two years.
  - l. Register program residents to utilize the ACOS electronic data collection/log system. Residents in general surgery, plastic and reconstructive surgery, neurological surgery, urological surgery, and general vascular surgery must utilize the ACOS electronic data collection/log system to document and submit logs of procedures for the annual resident report. (Reference Standard 3.1.b.3)
- 6.5 Procedural Requirements
- a. Program director appointments must be approved by the ACOS RESC with subsequent registry by the AOA. (Reference Section IV)
  - b. Program directors may be dismissed for non-adherence to the AOA/ACOS Residency training standards. (Reference *AOA Basic Documents for Postdoctoral Training*.)

## **DISCIPLINE SPECIFIC REQUIREMENTS**

### **B. General Surgery**

- 6.1 Qualifications of the general surgery program director and the faculty:

- a. The program director must be certified in general surgery by the AOA through the American Osteopathic Board of Surgery (AOBS) or by the American Board of Surgery (ABS).
  - b. The program faculty must include a program director and at least one board certified/board eligible general surgeon on staff for each OGME-5 resident. At least one of these faculty must be AOA-certified in general surgery, the other faculty member(s) must be at least board-eligible in general surgery.
- 6.2 Program Directors must review a resident's in-service examination score results in consultation with the resident.
- 6.3 The program director must be afforded protected time with associated compensation, secretarial support and office space to complete the administrative and operational requirements of the position. Protected time includes, but is not limited to: administrative, didactic and meeting requirements.
- 6.4 The program director must document institutional support.

### **C. General Vascular Surgery**

- 6.1 Qualifications of the general vascular surgery program director
- a. The program director must be a DO certified in general vascular surgery by the AOA through the AOBS or by an ABMS recognized certifying board.
  - b. The program faculty must include at least two general vascular or cardiothoracic surgeons, one of whom may be the program director. At least one of the faculty must be AOA-certified in general vascular or cardiothoracic surgery, the other faculty member must be at least board-eligible in general vascular or cardiothoracic surgery.

### **D. Cardiothoracic Surgery**

- 6.1 Qualifications of the cardiothoracic surgery program director and faculty:
- a. The cardiothoracic program director must be certified in cardiothoracic surgery by the AOA through the AOBS or American Board of Thoracic Surgery.
  - b. The program faculty must include at least two cardiothoracic surgeons, one of whom may be the program director. At least one of the faculty must be AOA-certified in cardiothoracic surgery, the other must be at least board-eligible in thoracic cardiovascular surgery. The faculty must assume both educational and supervisory responsibility for the residents.

### **E. Surgical Critical Care**

- 6.1 The program director's qualifications must include:
- a. Certification in general surgery by the AOA through the AOBS or the American Board of Surgery (ABS).
  - b. Successful completion of an AOA or ACGME-approved residency program in critical care medicine.
  - c. Certification in critical care by the AOBS or the American Board of Surgery (ABS).
  - d. Active practice in surgical critical care as a major focus of their clinical practice.
- 6.2 The responsibilities of the surgical critical care program director must include:

- a. Directing or delegating supervision of residents in the SICU.
  - b. Developing quality standards for the institution and for the periodic review and revisions of these standards.
  - c. Demonstrating active participation in the surgical education program.
- 6.3 The program faculty must include at least two surgeons, including the program director. At least one of the faculty must be AOA-certified in surgical critical care, the other faculty member must be at least board-eligible in surgical critical care.

#### **F. Neurological Surgery**

- 6.1 The program director must be certified in neurological surgery by the AOA through the AOBS or by the American Board of Neurological Surgery (ABNS).
- 6.2 There must be a minimum of three neurosurgery faculty, one of whom may be the program director. One faculty member must be AOA-certified or eligible in neurological surgery, the other faculty members must be at least board-eligible in neurological surgery.
- a. At least three (3) of the neurological surgery faculty members must perform a minimum of 200 major neurological surgery procedures per year in the teaching institution.

#### **G. Plastic and Reconstructive Surgery**

- 6.1 The plastic and reconstructive surgery program director must be a DO certified in plastic and reconstructive surgery by the AOA through the AOBS or by an ABMS recognized certifying board.

#### **H. Urological Surgery**

- 6.1 The program director must be a DO certified in urological surgery by the AOA through the AOBS or by an ABMS recognized certifying board.
- 6.2 The program faculty must include at least two urologists, one of whom may be the program director. At least one of these faculty members must be AOA-certified in urological surgery, the other faculty member must be at least board-eligible in urological surgery.

### **SECTION VII: RESIDENT REQUIREMENTS**

#### **A. Resident Requirements**

- 7.1 The resident-specific policies enumerated in the *AOA Basic Documents for Postdoctoral Training* must be implemented and provided, as applicable, to residents admitted to the AOA-approved program.
- a. The resident is required to maintain and accurately complete records for their educational activities in the required surgical and educational log forms.
  - b. The surgical logs must be submitted at the end of each rotation to the program director for review and verification.
  - c. The surgical logs must document the fulfillment of the requirements of the program, describing the scope, volume, and variety, progressive responsibility by the resident.
- 7.2 The resident is required to complete and submit the annual resident report to the ACOS RESC by the due date determined by the RESC, but no later than 30 days after the completion of the contract year. The ACOS does not review annual resident reports that are

three or more years delinquent.

- 7.3 Resident's Annual Report for Surgery (segregated totals): This AOA/ACOS form is completed by the resident and signed by both the resident and the program director to verify that the information reported is accurate. This report form documents the resident's surgical experience for the residency year. There is a different report form for each surgical specialty reviewed by the RESC. Segregated totals must reflect adequate scope, volume, and variety of procedures as defined by the ACOS/AOA standards. Residents in General Surgery, Plastic and Reconstructive Surgery, Neurological Surgery, Urological Surgery, and General Vascular Surgery must utilize the ACOS electronic data collection/log system to document and submit log data for the annual resident report.
- 7.4 Evidence of completion of scholarly activity which may include an *Original Scientific Research Paper*. (Appendix Three and Four.)
- Residents must meet the applicable requirements for scholarly activity/scientific research for their specialty.
  - The scientific research paper or other research project submitted for credit towards the annual resident report must be approved by the program director and adhere to *The ACOS Trainer's Evaluation Format for the Resident Original Scientific Research Paper*.
- 7.5 Annual resident reports must be received by the ACOS by the date determined by the RESC. Incomplete annual resident reports submitted to the ACOS will not be reviewed by the RESC.
- 7.6 Residents must review and sign the Program Director's Annual Resident Evaluation Report for Surgery.
- 7.7 Residents must complete the required scientific and research component of the curriculum. (Reference Appendices Three and Four.)
- 7.8 Didactic Requirements: Resident attendance in all educational offerings must be documented.
- Residents must attend and document participation in at least 75% of all educational offerings by a program.
- 7.9 **Continuity of training:** To achieve approval/program completion by the ACOS RESC, a resident must spend the final two years of residency training in the same program. Resident transfers resulting from participation in a residency program that has been discontinued must be exempt from the continuity of training policy for the final two years of residency training. (See Appendix One for Advanced Standing, Residency Transfers, and Research Sabbatical.)

## SECTION VIII: EVALUATION

### A. Institutional Evaluation

- 8.1 The program, with the support of the sponsoring institution, must document and implement an ongoing evaluation process that focuses upon improving the quality of osteopathic surgical education provided to their residents.

### B. Program Evaluation

- 8.1 Programs must incorporate the self-study evaluation process as a permanent part of their operation.

- 8.2 The program director and the faculty must be peer evaluated annually with respect to their teaching abilities, commitment to the program, and scholarly activities.
- 8.3 The quality of the program must be evaluated at least annually by the program director, faculty, and residents, and the results should be used for program improvement. Recommended methods include: program improvement and outcome results such as resident in-service examination scores and graduate performance on the certifying examination; postgraduate professional performance satisfaction surveys and records of the professional accomplishments of the program graduates; the resident attrition rate from the program and the percent of graduates completing the program on time.
- 8.4 Resident's Annual Evaluation Report of the Program Director/program: This ACOS report form is completed by the resident and is held in strict confidence by the RESC. The RESC utilizes this form to evaluate the program director and the program. ACOS staff notifies the RESC when a trend of negative evaluations develops for a particular residency program.

### C. Resident Evaluation

- 8.1 The program director, with faculty input, must complete written evaluations of resident performance at least quarterly. This must include evaluations from all affiliated training sites and elective assignments.
- a. The evaluations must be learner-centered, developmental, improvement-oriented, and based upon educational objectives for each assignment and program activity, and reflect the AOA core competencies.
  - b. Completed evaluations must be signed by the program director and the resident as documentation that evaluation and counseling have occurred quarterly as required.
  - c. Copies of the quarterly evaluations must be filed, made available to the resident upon request, and submitted to the RESC as necessary or requested (Reference Section IV)
  - d. Residents requiring remediation or counseling must be evaluated more frequently.
  - e. A final evaluation of each resident's general and technical abilities which attests to their competence at graduation from the program, must be completed and filed with their permanent record.
- 8.2 The program director must submit the *Program Director's Annual Resident Evaluation Report for Surgery* by the deadline established by the RESC.
- a. This AOA/ACOS report form is completed by the program director. The program director must include a narrative progress report on the resident's competency in each year of training. The narrative must summarize the resident's progress in achieving the core competencies and provide a description and an evaluation of the resident's scholarly activity. Both the resident signature and the program director signature are required to document that the resident has been counseled concerning progress. Quarterly evaluations must be submitted with this annual report form if the promotion section of the form includes a recommendation from the program director that the training year not receive approval and/or that the resident not be advanced to the next level of training.
- 8.3 Residents must evaluate their program director by completing and signing the Resident's Annual Evaluation Report of the Program/Program Director.
- 8.4 Residents in general surgery training programs must have completed the annual ACOS in-

service examination. Residents in other surgical specialties must complete an annual in-service examination if available.

## APPENDICES

### **APPENDIX ONE: Policy and Procedures**

The Resident Evaluation and Standards Committee (RESC) of the American College of Osteopathic Surgeons (ACOS) is charged with the responsibility of maintaining the highest standards of training within the training programs of the Osteopathic surgeon. Accreditation serves as an indication of quality by establishing standards against which all surgical residency training programs can be measured. A high level of reliance is placed upon information, data, and statements provided to the RESC by a program. The integrity and honesty of a program are fundamental and critical to the process. A compromise of integrity is considered to be an extreme offense. If the RESC or AOA determine that a program has knowingly provided false or misleading information, the RESC and/or AOA will take any action that it believes is reasonable and appropriate including, but not limited to, denying any pending application or taking other action deemed appropriate. Accredited institutions and programs agree to, and must meet or exceed, the *AOA Basic Documents for Postdoctoral Training* and the AOA's and ACOS's *Basic Standards for Surgery and the Surgical Subspecialties* throughout their entire period of accreditation.

By applying for and receiving accreditation, a program accepts the obligation to demonstrate compliance with the *Basic Standards for Residency Training in Surgery and the Surgical Specialties*. A fundamental component required for this demonstration is self-study evaluation. Self-study evaluation is an assessment of the entire program, conducted by faculty and students, as well as by the sponsoring institution and the OPTIs. The process should involve the entire organization. The self-evaluation process provides an opportunity for the staff and faculty of the program to examine itself and to draft findings and recommendations for its own action. Programs are directed by their OPTIs to conduct at least one self-study evaluation at the mid-point of their period of accreditation. Improvements within a program should be due primarily to its internal efforts rather than due to an on-site evaluation by an outside team. The process of self-evaluation is expected to be a significant and ongoing experience. Programs must incorporate the self-study evaluation process as a permanent part of their operation.

While the RESC employs its own fact-finding methods to determine a program's compliance with accrediting standards, such as the report from on-site evaluation and review of information provided by third parties, the burden rests with the program to establish that it is in compliance with all the standards of accreditation. Moreover, the RESC's deliberations and decisions are made with the assistance of the written record of an accreditation review. Programs do not appear before the RESC so the provided documentation must be complete and provide the most valid picture of the program possible. Accordingly, a program must supply the RESC with complete documentation of the program's compliance with all accrediting standards if it is to be granted and maintain accreditation.

#### **Standards of Accreditation**

This document describes the accreditation process and sets forth the base of essentials (i.e., standards of best practice) against which a program examines and evaluates itself. Each program determines its own training objectives, keeping in mind, however, that such objectives must be appropriate for a postdoctoral surgery residency training program and in accordance with the ACOS's and AOA's standards. The standards and accreditation process emphasize educational quality by also focusing on outcomes. Accordingly, the RESC directs its focus on outcomes related to the CORE Competencies (Patient Care, Medical Knowledge, Practice-Based Learning and

Achievement, Interpersonal and Communication Skills, Professionalism, and Systems-Based Practice), and behaviors achieved by residents as a direct result of participation in an ACOS/AOA approved surgical residency training program.

The primary purpose of the RESC is to establish and maintain high educational standards and ethical practices among its accredited/approved programs and ensure program compliance to these standards.

The RESC evaluates each year of a resident's training based upon the evaluation and recommendation of the program director. Each year of training must be approved by the RESC before a resident will be considered to have successfully completed a residency training program approved by the ACOS and AOA. Successful completion is a prerequisite for eligibility for certification by the AOA through the American Osteopathic Board of Surgery (AOBS).

#### A. PROCEDURES FOR CONTINUING APPROVAL OF ESTABLISHED PROGRAMS

1. A continuing residency program shall be evaluated through an on-site inspection, conducted by an AOA-approved inspector
2. ACOS RESC recommendations for continuing program approval will specify the number of months before another site visit is necessary. All recommendations from the RESC are forwarded to the AOA PTRC. The RESC adheres to the following criteria for continuing approval recommendations to the AOA PTRC:
  - a. Approval with re-evaluation in five (5) years: The program has no deficiencies; the program meets or exceeds all AOA/ACOS standards.
  - b. Approval with re-evaluation in four (4) years: The program has no more than two (2) deficiencies.
  - c. Approval with re-evaluation in three (3) years: The program has three (3) or more two (2) minor deficiencies and no more than one (1) major deficiency. (Programs which have a break in training of more than one year will receive a focused site visit at the discretion of the RESC within six (6) months of accepting a resident and not be awarded more than three (3) years approval.)
  - d. Approval with re-evaluation in two (2) years: The program has two (2) or more major deficiencies.
  - e. Approval with re-evaluation in one (1) year: The program has major deficiencies central to the quality of resident education. The program is placed on probationary status and requires immediate corrective action. The program has two (2) or more major deficiencies and severely impact the quality of resident training.
  - f. Approval with reinspection in no more than three (3) years will be granted to a program seeking approval for the first time. This policy applies only to new programs following its initial one year of approval to accept residents and must be completed prior to any resident complete status.
  - g. Approval with reevaluation of no more than three (3) years will be recommended for programs previously placed and currently on probationary status.

A major deficiency fails to address one of the following standards:

1. Qualified active program director and sufficient faculty who teach, evaluate, and support the program

2. Institution's support to run the program effectively
3. Sufficient operative experience for the residents that are enrolled
4. An effective planned curriculum that covers the scope of the specialty
5. An effective and comprehensive evaluation system for the residents and the faculty
6. An internal evaluation system for the program that focuses on improvement
7. A good balance of service and education – i.e. good education and good clinical experience
8. Evidence of osteopathic application

Deficiencies considered minor are administrative in nature and unrelated to the basic structure and quality of the training.

NOTE: In deliberation of deficiencies, the RESC will determine the significance of deficiencies in relation to the program.

3. Specialty affiliate may recommend re-inspection of a program at any time.
4. Deferral of approval may be conferred for lack of sufficient information that precludes an informed and reasonable decision. When approval is deferred, the program retains its current status until a final decision is conferred at the next meeting.
5. The PTRC shall take final action on all continuing postdoctoral programs. Such action shall be based on the recommendation of the ACOS/RESC.

## **B. PROCEDURES FOR RESIDENT INCREASES IN ESTABLISHED PROGRAMS**

1. The RESC shall review the application materials for increases and make a recommendation to the AOA PTRC. The RESC shall recommend approval or denial. It may also defer pending the receipt of additional materials.
  - a. Applications for increases in established residency programs that do not comply with AOA/ACOS standards, shall be recommended for denial. Recommendations for denial shall be accompanied by a description of areas of non-compliance which are cross-referenced to the basic standard documents for that specialty.
  - b. Applications for increases in established residency programs that do not contain correct information or are deemed incomplete, shall have action deferred for a period of thirty days to allow the program to correct the application. Failure to do so will result in a recommendation for denial at the next meeting.
2. The PTRC shall take final action on all applications for increases in established residency programs. Such action shall be based on the recommendation of the ACOS/RESC.

**C. Advanced standing:** Residents may petition the ACOS for advanced standing based on training in previous years, to include, but not limited to, training in another specialty training program, military training, or a traditional rotating internship, differing from required surgical first year for that specific residency program. Such requests are granted only for 12-month periods, and are approved by the ACOS/RESC and reported to the AOA and the OPTI. Furthermore, residents who were required to repeat a training year cannot utilize the repeated year towards the fulfillment of their primary or secondary programs. The training program and resident position must be AOA-approved or ACGME-accredited prior to commencement of the resident's training. No more than one month advanced standing will be awarded for one month of

alternative training. Documentation, which must be submitted for consideration of advanced standing, must include the following:

1. Evaluations and verification by the director of the previous program that the training was successfully completed;
2. A resident report, on the appropriate report form, documenting procedures performed;
3. A written description of the program, and a schedule of rotations completed; and
4. A scientific paper that is either an original contribution or a case report. Original contributions will document original clinical or applied research. Case reports will document unusual clinical presentations with newly recognized or rarely reported features. The length of the paper shall be at least 1500 words, double spaced, paginated, with references required for all material derived from the work of others; or (for training completed after July 2007) documentation of a scholarly activity as a result of the resident's progressive acquisition of critical appraisal and personal research skills. The scholarly project for the training year must be evaluated by the program director using the program director's annual resident evaluation report for surgery.
5. A written letter evaluating the level of training of the resident by the program director accepting the resident into the new program, if applicable. (It is the prerogative of the program director to develop a teaching/remediation plan for the resident, not to exceed one year.

**D. Interim program directors** may be approved by the ACOS RESC for a maximum of three (3) years. Failure of the Program to fill the program director vacancy may lead to a recommendation by the RESC for a site visit. An individual can be appointed as an interim program director of a program in transition when the individual is in compliance with the requirements in Section VI.

**E. Residency Transfers:** Residents who transfer from one surgical training program to another surgical training program during an OGME training year will only be able to seek approval of their training after submission of the following documentation to the RESC: a copy of a mutual agreement to be released from the residency contract; a copy of a mutual agreement for acceptance into the new residency program; resident's surgical logs documenting scope, volume and variety from the former residency program and the new program; evaluations of the resident from the former program director and the new program director for the training completed in each program; written justification for the transfer, and a written letter evaluating the level of training of the resident by the program director accepting the resident into the new program, if applicable. The combined training must be equivalent to and meet the same standards as an OGME year of training in a single program. ACOS files should include the documentation of this transfer.

**F. Research Sabbatical:** General surgery residents may participate in 12 months of research at the approval of the program director. The sabbatical year may be taken following an OGME 2 or OGME 3 general surgery training year. The research training year may not count towards the minimum number of years that must be AOA-approved for program completion nor may it conflict with the continuity of training policy that requires the last two years at the same training institution.

**APPENDIX TWO**  
**OGME-1R (First Year Residency) Requirements –**  
**General Surgery, Neurological Surgery and**  
**Urological Surgery**

The first year of the residency program (OGME-1R) for general surgery, urological surgery, and neurological surgery must include the following rotations. These rotations may be scheduled as 12 one-month rotations or 13 four-week rotations or any combination thereof:

1. Rotations for ½ day per week, for 46 weeks, in an out-patient clinic or office.
2. Two months of general internal medicine
3. One month of ICU
4. One month of emergency medicine
7. Four months of general surgery
8. Four months of selectives to include any of the following areas:
  - a. Urology
  - b. Orthopedics
  - c. Anesthesia
  - d. ENT
  - e. General Surgery
  - f. Vascular Surgery
  - g. Neurosurgery
  - h. Cardiovascular Thoracic Surgery
  - i. Plastic and Reconstructive Surgery
  - j. Radiology
  - k. One month of female reproductive medicine
  - l. One month of pediatrics, if available, or other primary care specialty, at the discretion of the training institutions.

These requirements may be altered at the discretion of the Program Director, with the approval of the sponsoring institution's GME committee, Director of Medical Education, and the Residency Education Standards Committee (RESC), which will best serve the experience of the resident. Programs not complying with these OGME-1R requirements must provide their actual rotation schedule to the RESC and a rationale for any variance.

The OGME-1R year of fundamental skills must be organized so that residents participate in clinical and didactic activities to:

- develop the knowledge, attitudes and skills needed to formulate principles and assess, plan, and initiate treatment of patients with surgical and medical problems;
- be involved in the care of patients with surgical and medical emergencies, multiple organ system trauma, and nervous system injuries and diseases;
- gain experience in the care of critically ill surgical and medical patients;
- participate in the pre-, intra-, and post-operative care of surgical patients; and
- develop basic surgical skills and an understanding of surgical anesthesia, including anesthetic risks and the management of intra-operative anesthetic complications.

OGME-1R residents will log case exposure during the first training year in the approved case log system. These procedures will be counted toward the total procedures required by completion of the program.

**APPENDIX THREE**  
**Resident Annual Report**

**A. COMPONENTS OF THE ANNUAL RESIDENT REPORT**

- A.1 Annual resident reports are required for each training year and are reviewed by the RESC. Residents must submit an annual report within thirty (30) days of completion of each contract year. Residents not submitting their appropriate forms (Resident's Annual Evaluation Report of the Program Director, original scholarly activity/research paper, segregated totals (on AOA/ACOS form) within 60 days will be required to pay a late fee accrued annually before their training will be approved. The late fee applies to residents seeking AOA or ACGME training approval and is determined by the RESC and the ACOS Board of Governors. The annual resident report consists of the following documents:
- A.1.a. ***Program Director's Annual Resident Evaluation Report for Surgery.***  
This AOA/ACOS report form is completed by the program director. The program director must include a narrative progress report on the resident's competency in each year of training. The narrative must summarize the resident's progress in achieving the core competencies and provide a description and an evaluation of the resident's scholarly activity. Both the resident signature and the program director signature are required to document that the resident has been counseled concerning progress. Quarterly evaluations must be submitted with this annual report form if the promotion section of the form includes a recommendation from the program director that the training year not receive approval and/or that the resident not be advanced to the next level of training.
- A.1.b ***Resident's Annual Evaluation Report of the Program Director.***  
This AOA/ACOS report form is completed by the resident and is held in strict confidence by the RESC. The RESC utilizes this form to evaluate the program director. ACOS staff notifies the RESC when a trend of negative evaluations develops for a particular residency program.
- A.1.c ***Resident's Annual Report for Surgery***(segregated totals).  
This AOA/ACOS form is completed by the resident and signed by both the resident and the program director to verify that the information reported is accurate. This report form documents the resident's surgical experience for the residency year. There is a different report form for each surgical specialty reviewed by the RESC. Segregated totals must reflect adequate scope, volume, and variety of procedures as defined by the ACOS/AOA standards. Residents in General Surgery, Plastic and Reconstructive Surgery, Neurological Surgery, Urological Surgery, and General Vascular Surgery must utilize the ACOS electronic data collection/log system to document and submit log data for the annual resident report.
- A.1.d ***Scholarly Activity***  
Resident will provide a narrative explaining the scholarly activity and documentation as necessary. (Section V, Appendix Three.)
- A.2. Non-Member ACOS residents seeking approval of AOA or ACGME training are required to pay a non-member processing fee, as determined by the RESC and the ACOS Board of Governors, for each year of their training to be evaluated by the RESC.
- A.3. Program directors will complete and submit the Annual Resident Report Checklist for Program Directors to the ACOS with the Residents Annual Report.

## **APPENDIX FOUR**

### **Guidelines for the Resident Scholarly Activity and Scientific Research Paper**

#### **Scholarly Project**

Each resident will be expected to do a scholarly project of their choice annually in one of the following four areas. Before the resident begins the project the program director must approve the resident's project. These four areas are only general guidelines to allow for creativity. Examples are listed in each area. Residents will be expected to attend sessions for review and evaluation of their projects with their program directors which should include a discussion of study design techniques and analysis. It is recommended that reviews be done on at least a quarterly basis. It is imperative that written documentation of all aspects of the resident's scholarly projects be maintained in the resident files. Program directors need to be kept informed of the status of the resident's projects in order for a narrative description and evaluation of the scholarly activity to be included in the Program Director's Annual Resident Evaluation Report for Surgery.

#### **1. Clinical Research**

Examples include, but are not limited to, an original scientific paper, poster session at the ACA, literature review, case study or a new surgical procedure report

#### ***Scientific Research Paper***

The length of the paper should be at least 1500 words, double-spaced, paginated with references required for all material derived from the work of others. It should be in proper format. An original scientific paper can be done over several years or throughout the entire residency as long as goals are met annually and the paper is completed before resident completes the training. (See current guidelines.) All other papers can only be submitted to fulfill the requirement for one year.

#### ***Poster Sessions***

Poster Sessions are an in-depth exchange of information on a one-to-one basis, providing a medium for unusual or multiple clinical case presentations prepared with photographs, laboratory and/or radiological information. Documentation of this activity requires a photograph of the poster session and written statement that the poster was exhibited at the ACA by the resident who prepared the poster. A resident's folder for this activity should also include a written description of at least 250 words of the objective, methods, and summary of outcomes of the clinical case presented.

#### **2. Community-Based Effort**

#### ***Quality Improvement Programs***

This may come in the form of a community-based quality improvement program. Residents may select a specific health improvement or disease prevention issue or need within a community. The resident must identify a population of interest within a community, summarize the problem and the population, review the current literature, perform a needs assessment, and design, implement, and evaluate an intervention to address the issue or need.

#### ***Community Education***

An example of Community Education would be, but not be limited to, a well-planned lecture to a locally recognized community group or a presentation at a national level (e.g. ACA).

#### ***Community Service***

An example of Community Service might be, but not be limited to, implementing a program and subsequently delivering medical care to an under-served or impoverished area or population.

Medical mission trips would fall into this category.

Written documentation of the resident's community based efforts will be available and kept in the resident's file.

### **3. Medical Education Quality Initiative**

Improvements in medical education have led to more effective training processes and programs for medical students, interns and residents. Residents who wish to pursue medical education research projects must identify a process or program need, review the current literature, perform a needs assessment, and design, implement, and evaluate the proposed improvement project. An example of a Medical Education Quality Initiative would include, but not be limited to, preparing three lectures to be given in three different mediums to the house staff. Subsequently evaluating the resident's effectiveness as a lecturer and testing the knowledge retained by the attendees.

### **4. Practice Improvement Outcome**

Practice Improvement Outcomes may include, but not be limited to, designing and completing a project for presentation at surgical grand rounds focusing on the root-cause analysis of a systems error occurring in the management of the patient.

Another example might be for the resident to review a published clinical practice guideline using an evidence-based approach and audit office charts to compare treatment, screening or diagnostic testing of patients with the recommendations of the guideline.

#### **Documentation**

Residents will provide ACOA a narrative description of the scholarly activity (research paper, poster, community education/service, etc.) with documentation as necessary. This narrative should be more detailed than the narrative provided in the Program Directors Annual Evaluation of the Resident and be signed by the program director. Scholarly activity will be filed and subject to review by site visitors during their review of a program for continuing approval.

#### **Scientific Research Paper**

#### **General Vascular Surgery, Plastic and Reconstructive Surgery, Surgical Critical Care, and Cardiothoracic Surgery**

The ACOS Residency Evaluation and Standards Committee (RESC) requires all residents to demonstrate the ability to synthesize and apply medical research data in their training. Writing an original scientific research paper is one method to evidence this training. Through this process, the resident may improve cognitive skills, and learn to manage and communicate medical information more effectively.

After completing the OGME 5 program in general surgery, a program director may require one of the following to be completed for the subsequent training years in General Vascular Surgery, Plastic and Reconstructive Surgery, Surgical Critical Care, and Cardiothoracic Surgery:

- Technique description
- Essay suitable for publication in a referenced journal
- Symposium presentation
- Poster presentation
- Original research project
  - Retrospective study
  - Prospective study

The scholarly activity must be approved by the program director and a narrative of the activity must be completed and submitted with the resident's evaluation of the program/program director and must relate to the resident's specialty (general vascular surgery or surgical critical care, respectively). Any document(s) submitted for approval must meet the criteria outlined in *The ACOS Trainer's Evaluation Format for the Resident Scientific Research Paper*.

Only one resident may receive credit for a paper or poster session submitted for the research project. (Reference Appendices Three and Four.)

**APPENDIX FIVE**  
**General Guidelines for Osteopathic Medical Core Competencies**  
**BOT 7-2010, Effective 7-2011**

**Core competencies integrated within the context of osteopathic principles and practice (OPP):** Osteopathic medicine defines itself in light of its osteopathic principles and practice. This philosophical and practical approach to patient care is the foundation upon which every one of the following enumerated osteopathic medical competencies is based and must be demonstrated to be integrated throughout the curriculum. Osteopathic principles and practice is the essential foundation to each and every aspect of the evaluation, diagnosis and care of our patients.

***Competency 1: Osteopathic Philosophy, Principles and Manipulative Treatment:*** Residents are expected to demonstrate and apply knowledge of accepted standards in OPP/OMT **appropriate to their specialty.** The educational goal is to train a skilled and competent osteopathic practitioner who remains dedicated to life-long learning and to practice habits in osteopathic philosophy and manipulative medicine. This competency is not to be evaluated separately, but its teaching and evaluation in the training program shall occur through Competencies 2-7 into which this competency has been fully integrated.

***Competency 2: Medical Knowledge and Its Application Into Osteopathic Medical Practice:*** Residents must demonstrate and apply integrative knowledge of accepted standards of clinical medicine and OPP in their respective osteopathic specialty area, remain current with new developments in medicine, and participate in life-long learning activities, including research.

**C2 Required Element #1:** This resident demonstrated competency in the understanding and application of clinical medicine to osteopathic patient care.

**The Resident:**

1. Completed COMLEX Part III and/or an In-Service Examination this year.
2. Demonstrated improved clinical decision-making and problem-solving abilities.
3. Attended seminars, CME programs, Grand Rounds, or Lectures.
4. Participated in a directed readings program and/or journal club
5. Completed OPP Competencies which may include but not be limited to the following:
  - a. Performing critical appraisals of medical literature related to OMT and/or OPP.
  - b. Completing OMT and/or OPP computer-based educational modules,
  - c. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
  - d. Demonstrating the treatment of people rather than symptoms.
  - e. Demonstrating understanding of somato-visceral relationships and the role of the musculoskeletal system in disease.
  - f. Participating in AOA Clinical Assessment Program.

**C2 Required Element #2:** This resident must know and apply the foundations of clinical and behavioral medicine appropriate to his/her discipline with application of all appropriate osteopathic correlations.

**The Resident:**

1. Participated in research activities that allowed the critical evaluation of current medical and/or osteopathic information and scientific evidence.
2. Developed as a medical educator by giving presentations before peers and faculty, and participated in the instruction of osteopathic medical students.

3. Met specified standards of performance on medical procedures, indications and interpretations.
4. Participated in programmatic education on Life Long Learning.
5. Participated in lectures and workshops on behavioral psychosocial multi-cultural issues in his/her medical specialty, as appropriate.
6. Completed OPP Competencies which may include but not be limited to the following:
  - a. Participating in OMT and/or OPP training at hospital and ambulatory sites.
  - b. Performing critical appraisals of medical literature related to OMT and/or OPP.
  - c. Participating in activities that provided osteopathic educational programs at the student and intern levels including osteopathic correlations.
  - d. Demonstrating the treatment of people rather than symptoms.
  - e. Participating in AOA Clinical Assessment Program

**Competency 3: Osteopathic Patient Care:** Osteopathic residents must demonstrate the ability to effectively treat patients, provide medical care that incorporates the osteopathic philosophy, patient empathy, awareness of behavioral issues, the incorporation of preventive medicine, and health promotion

**C3 Required Element #1:** Gathered accurate, essential information from all sources, including medical interviews, osteopathic physical and structural examinations as indicated, medical records, diagnostic/therapeutic plans, and treatments.

**The Resident:**

1. Performed effective medical interviewing techniques.
2. Developed effective patient management plans.
3. Demonstrated the ability to request and sequence diagnostic tests and consultative services.
4. Demonstrated a caring attitude that is mindful of cultural sensitivities, patient apprehensions, and accuracy of information.
5. Conducted effective bedside rounds.
6. Demonstrative effective ability in the performance of an Osteopathic SOAP Note.
7. Completed OPP Competencies which may include but not be limited to the following:
  - a. Performing of OMT through the assessment of his/her diagnostic skills, medical knowledge, and problem-solving abilities.
  - b. Assuming increased responsibility for the incorporation of osteopathic concepts in his/her patient management.
  - c. Demonstrating understanding of somato-visceral relationships and the role of the musculoskeletal system in disease.
  - d. Demonstrating listening skills in interaction with patients.
  - e. Utilizing caring, compassionate behavior and touch with patients.
  - f. Participating in AOA Clinical Assessment Program.

**C3 Required Element #2:** This resident validated competency in the performance of diagnosis, osteopathic and other treatment and procedures appropriate to his/her medical specialty.

**The Resident:**

1. Completed a program for instruction and credentialing to validate competency in the performance of medical procedures, where appropriate.
2. Provided patient instructions on potential complications and known risks (informed consent).
3. Participated in beside teaching rounds.
4. Completed OPP Competencies which may include but not be limited to the following:

*Basic Standards for Residency Training in Surgery and the Surgical Subspecialties*

- a. Performing OMT through the assessment of his/her diagnostic skills, medical knowledge, and problem-solving abilities.
- b. Participating in activities that provided educational programs at the osteopathic student and intern levels including osteopathic correlations.
- c. Demonstrating listening skills in interaction with patients.
- d. Participating in AOA Clinical Assessment Program.

**C3 Required Element #3:** This resident provided health care services consistent with osteopathic philosophy, including preventative medicine and health promotion based on current scientific evidence.

**The Resident:**

1. Demonstrated effective skills in counseling patients and their families on health promotion and lifestyle activities related to good health maintenance.
2. Demonstrated effective skills in referring patients to non-for-profit and community service organizations that support health promotion and behavioral modification programs.
3. Demonstrated the ability to work with professionals from varied disciplines as a team to provide effective osteopathic medical care to patients that address their diverse healthcare needs.
4. Participated effectively in bedside teaching rounds
5. Demonstrated OPP Competencies which may include but not be limited to the following:
  - a. Performing a critical appraisal of medical literature related to OMT and/or OPP.
  - b. Assuming increased responsibility for the incorporation of osteopathic concepts in his/her patient management.
  - c. Utilizing caring, compassionate behavior and touch with patients.
  - d. Demonstrating the treatment of people rather than symptoms.
  - e. Demonstrating listening skills in interaction with patients.
  - f. Participating in AOA Clinical Assessment Program.

***Competency 4: Interpersonal and Communication Skills in Osteopathic Medical Practice:***

Residents are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.

**C4 Required Element #1:** This resident demonstrated effectiveness in developing appropriate doctor-patient relationships.

**The Resident:**

1. Demonstrated effective patient interviewing techniques.
2. Demonstrated ability in assessing the health of non-English-speaking, deaf, and non-communicative patients.
3. Involved patients and families in decision-making.
4. Used appropriate verbal and non-verbal skills (including touch) when communicating with patients, families, and faculty.
5. Demonstrated an understanding of cultural, gender and religious issues and sensitivities in the doctor-patient relationship.
6. Participated in videos, workshops, bedside/clinic/office teaching about interpersonal communications and osteopathic skills
7. Demonstrated OPP Competencies which may include but not be limited to any of the following:
  - a. Demonstrating the treatment of people rather than symptoms.

- b. Demonstrating knowledge of and behavior in accordance with the Osteopathic Oath and AOA Code of Ethics.
- c. Demonstrating listening skills in interaction with patients.

**C4 Required Element #2:** This resident exhibited effective listening, written and oral communication skills in professional interactions with patients, families and other health professionals.

**The Resident:**

- 1. Communicated medical problems and patient options at the appropriate level of understanding.
- 2. Maintained comprehensive, timely, and legible medical records.
- 3. Demonstrated respectful interactions with health practitioners, patients, and families of patients.
- 4. Elicited medical information effectively.
- 5. Demonstrated an understanding of resources available to physicians to assist with appropriate assessment of communication-impaired patients.
- 6. Worked effectively with others as a member or leader of a healthcare team.
- 7. Participated in workshops/videos, bedside/clinic/office teaching on effective oral/written communication skills.
- 8. Demonstrated OPP Competencies which may include but not be limited to any of the following:
  - a. Utilizing caring, compassionate behavior and touch with patients.
  - b. Demonstrating listening skills in interaction with patients.

**Competency 5: Professionalism in Osteopathic Medical Practice:** Residents are expected to uphold the Osteopathic Oath in the conduct of their professional activities that promote advocacy of patient welfare, adherence to ethical principles, collaboration with health professionals, life-long learning, and sensitivity to a diverse patient population. Residents should be cognizant of their own physical and mental health in order to care effectively for patients.

**C5 Required Element #1:** This resident demonstrated respect for his/her patients and families and advocated for the primacy of his/her patient's welfare and autonomy.

- 1. Presented an honest representation of a patient's medical status and the implications of informed consent to medical treatment plans.
- 2. Maintained patient's confidentiality and demonstrated proper fulfillment of the osteopathic physician's role in the doctor-patient relationship.
- 3. Maintained appropriate and non-exploitive relationship with his/her patients.
- 4. Informed patients accurately of the risks associated with medical research projects, the potential consequences of treatment plans, and the realities of medical errors in medicine.
- 5. Treated the terminally ill with compassion in the management of pain, palliative care, appropriate touch and preparation for death.
- 6. Participated in course/program (compliance and end-of-life), workshops, lectures, bedside, and clinic/office teaching.
- 7. Participated in mentor/mentee sessions on professionalism, ethics, and cultural diversity
- 8. Demonstrated OPP Competencies which may include but not be limited to any of the following:
  - a. Completing OMT computer educational modules.

- b. Assuming increased responsibility for the incorporation of osteopathic concepts in his/her patient management.
- c. Participating in activities that provided educational programs at the osteopathic student and intern levels including osteopathic correlations.
- d. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
- e. Utilizing caring, compassionate behavior and touch with patients.
- f. Demonstrating knowledge of and behavior in accordance with the Osteopathic Oath and AOA Code of Ethics.

**C5 Required Element #2:** This resident adhered to ethical principles in the practice of osteopathic medicine.

**The Resident:**

1. Demonstrated an increased understanding of conflicts of interest inherent in medicine and the appropriate responses to societal, community, and healthcare industry pressures.
2. Used limited medical resources effectively and avoided the utilization of unnecessary tests and procedures.
3. Recognized the inherent vulnerability and trust accorded by patients to physicians and upheld the highest moral principles that avoid exploitation for sexual, financial, or other private gain.
4. Pursued life-long learning goals in medicine, humanism, and osteopathic ethics.
5. Gained insight into the understanding of patient concerns and the proper relationship with the medical industry.
6. Participated in workshops, lectures, bedside, and clinic/office teaching.
7. Participated in a mentor/mentee program on professionalism.
8. Demonstrated OPP Competencies by participating in activities and educational programs at the osteopathic student and intern levels and osteopathic correlations as appropriate.

**C5 Required Element #3:** This resident demonstrated awareness and proper attention to issues of culture, religion, age, gender, sexual orientation, and mental and physical disabilities.

**The Resident:**

1. Became more knowledgeable and more responsive to the special needs and cultural origins of patients.
2. Advocated for continuous quality of care for all patients.
3. Prevented the discrimination of patients based on defined characteristics.
4. Demonstrated an increased understanding of the legal obligations of physicians in the care of patients.
5. Attended lectures/workshops on multicultural medicine.
6. Modeled competency to other residents and house staff.
7. Demonstrated OPP Competencies which may include but not be limited to any of the following:
  - a. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
  - b. Utilizing caring, compassionate behavior and touch with patients.
  - c. Demonstrating the treatment of people rather than symptoms.
  - d. Demonstrating listening skills in interaction with patients.

**C5 Required Element #4:** The resident demonstrated awareness of one's own mental and physical health.

**The Resident:**

1. Demonstrated self-adherence to preventive care required of health professionals.
2. Had established some form of routine physical activity.

**Competency 6: Osteopathic Medical Practice-Based Learning and Improvement:** Residents must demonstrate the ability to critically evaluate their methods of clinical practice, integrate evidence-based traditional and osteopathic medical principles into patient care, show an understanding of research methods, and improve patient care practices.

**C6 Required Element #1:** This resident treated patients in a manner consistent with the most up-to-date information on diagnostic and therapeutic effectiveness (traditional and osteopathic).

**The Resident:**

1. Used reliable and current information in diagnosis and treatment.
2. Effectively used the medical library and electronically mediated resources to discover pertinent medical information.
3. Demonstrated the ability to extract and apply evidence from scientific studies to patient care.
4. Sought feedback on his/her presentations and reports.
5. Participated in evidence-based medicine Journal Clubs.
6. Demonstrated OPP Competencies which may include but not be limited to the following:
  - a. Performing a critical appraisal of medical literature related to OMT and/or OPP.
  - b. Meeting performance standards of OPP through the assessment of his/her diagnostic skills, medical knowledge, and problem-solving abilities.
  - c. Completing OPP computer-based educational modules
  - d. Participating in activities that provided educational programs at the osteopathic student and intern levels, including osteopathic correlations as indicated.
  - e. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
  - f. Completing OPP computer teaching modules
  - g. Demonstrating the treatment of people rather than symptoms.
  - h. Demonstrating understanding of somato-visceral relationships and the role of the musculoskeletal system in disease.
  - i. Participating in AOA Clinical Assessment Program.

**C6 Required Element #2:** This resident performed self-evaluations of clinical practice patterns and practice-based improvement activities using a systematic methodology.

**The Resident:**

1. Understood and participated in performance improvement/quality assurance activities at the hospital and ambulatory sites.
2. Applied the principles of evidence-based medicine in the diagnosis and treatment of patients (traditional and osteopathic).
3. Compared/studied the effectiveness of his/her practice patterns against the results obtained with other population groups in terms of effectiveness and outcomes.
4. Demonstrated OPP Competencies which may include but not be limited to the

following:

- a. Performing a critical appraisal of medical literature related to OPP.
- b. Participating in activities that provided educational programs at the osteopathic student and intern levels, including osteopathic correlations as indicated.
- c. Participating in CME programs provided by COMS, the AAO, and the osteopathic specialty colleges.
- d. Completing OMT and/or OPP computer-based teaching modules
- e. Demonstrating knowledge of and behavior in accordance with the Osteopathic Oath and AOA Code of Ethics.
- f. Participating in AOA Clinical Assessment Program.

**C6 Required Element #3:** This resident understood research methods, medical informatics, and the application of technology as applied to medicine.

**The Resident:**

1. Participated in research activities as required by his/her respective osteopathic specialty colleges.
2. Demonstrated computer literacy, information retrieval skills, and an understanding of computer technology that applies to patient care and hospital systems.
3. Applied study designs and statistical methods to the appraisal of clinical studies.
4. Participated in Journal Clubs and evidence-based medicine programs.
5. Sought feedback on his/her presentations and reports.
6. Provided effective and thoughtful feedback to others on their presentations and conclusions.
7. Demonstrate OPP Competencies which may include but not be limited to any of the following:
  - a. Performing a critical appraisal of medical literature related to OPP.
  - b. Completing OMT and/or OPP computer educational modules
  - c. Participating in activities that provided educational programs at the osteopathic student and intern levels, including osteopathic correlations as indicated.
  - d. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
  - e. Participating in AOA Clinical Assessment Program.

**Competency 7: System-Based Osteopathic Medical Practice:** Residents are expected to demonstrate an understanding of health care delivery systems, provide effective and qualitative osteopathic patient care within the system, and practice cost-effective medicine.

**C7 Required Element #1:** This resident understands national and local health care delivery systems and medical societies and how they affect patient care, professional practice and relate to advocacy.

**The Resident:**

1. Attended instruction in matters of health policy and structure.
2. Demonstrated an increased understanding of business applications in osteopathic medical practice.
3. Demonstrated operational knowledge of health care organizations, and state and federal programs.
4. Functioned as a member of the health care team in the hospital, ambulatory clinic and community.

5. Attended guest lectures/seminars with policy makers.
6. Attended hospital utilization review, quality and other administrative and multi-disciplinary meetings
7. Demonstrated OPP Competencies which may include but not be limited to any of the following:
  - a. Performing a critical appraisal of medical literature related to OMT and/or OPP.
  - b. Participating in activities that provided educational programs at the osteopathic student and intern levels, including osteopathic correlations as indicated.
  - c. Participating in CME programs provided by COMs, the AAO, and the osteopathic specialty colleges.
  - d. Completing OMT and/or OPP computer-based teaching modules
  - e. Participating in AOA Clinical Assessment Program.

**C7 Required Element #2:** This resident advocated for quality health care on behalf of his/her patients and assisted them in their interactions with the complexities of the medical system

1. Identified and used local medical resources available to patients for treatment and referral.
2. Participated in advocacy activities that enhance the quality of care provided to patients.
3. Practiced clinical decision-making in the context of cost, allocation of resources, and outcomes.
4. Demonstrate OPP Competencies which may include but not be limited to any of the following:
  - a. Assuming increased responsibility for the incorporation of osteopathic concepts in his/her patient management.
  - b. Participating in AOA Clinical Assessment Program.

## ACOS GLOSSARY and ACRONYMS

### GLOSSARY

**Affiliation:** An approved healthcare facility that provides a required educational experience for resident training. An institutional agreement is required for all affiliations.

**Affiliated Training Site:** The hospital or other medical facility providing clinical experiences in a residency program.

**Approved-Program/Institution:** The program has been approved by the AOA (includes primary training institution and affiliations).

**Board eligibility:** A physician who has successfully completed an AOA-approved osteopathic educational program and who has been found eligible for the AOA certification process, as a time-limited designation.

**Chief resident:** A resident who is in the final year of training and who has been assigned senior responsibility/ies.

**Compliance:** A term that connotes a program that has demonstrated conformance with published standards in the AOA/ACOS basic standards. (The opposite term is non-compliant.)

**Curriculum:** The sum total of learning activities for a subject or discipline which should include the cognitive, psychomotor, and affective components; recommended learning activities for the student; goals and objectives; measurement parameters; and recommended educational resources.

**Desirable, highly desirable, encourage/d:** Terminology used to describe aspects of a training program that may be suggested or recommended, but are not mandatory for program approval.

**Effective:** An educational term used to describe those elements of a training program that are meaningful and achieve educational purpose(s), e.g., effective curriculum, effective teaching, and effective evaluation.

**Faculty:** Physicians and other healthcare professionals who provide didactic or clinical education for resident training.

**Full time or FTE:** A term used to describe the totality of faculty commitment to resident training and educational activities.

**Program Director:** The certified osteopathic physician who is responsible for the administration of a residency program.

**Must, shall or essential:** Approval terms used to describe a standard or criterion that is mandatory or required.

**Osteopathic institution:** A college of osteopathic medicine or an osteopathic hospital.

**Primary training institution:** The primary clinical training site responsible for, and providing the majority of, required clinical experience for an approved training program.

**Should:** An approval term used to describe a standard or criterion that is so important that its absence must be justified by a program. The use of this term provides programs with the opportunity to develop alternative methods to demonstrate compliance with the referenced standard. It should not be interpreted as permissive.

**Sponsoring institution:** The legal entity responsible for the support and conduct of training programs, i.e., generally defined as a College of Osteopathic Medicine, an AOA-approved hospital, or a consortium of healthcare facilities.

**Sufficient or adequate:** A term which connotes that an approval standard or criterion meets compliance as judged by their peers, e.g., sufficient operative experience.

## ACRONYMS

|                 |   |
|-----------------|---|
| <b>AOA</b>      | American Osteopathic Association  |
| <b>AOBS</b>     | American Osteopathic Board of Surgery   |
| <b>ACOS</b>     | American College of Osteopathic Surgeons (ACOS),<br>the AOA's specialty affiliate for surgical training |
| <b>ABS</b>      | American Board of Surgery   |
| <b>Board</b>    | Board of Trustees of the AOA  |
| <b>BOE</b>      | Bureau of Osteopathic Education of the AOA  |
| <b>COPT</b>     | Council on Postdoctoral Training  |
| <b>Division</b> | Division of Postdoctoral Training   |
| <b>DME</b>      | Director of Medical Education   |
| <b>PTRC</b>     | Program and Trainee Review Council  |
| <b>OPTI</b>     | Osteopathic Postdoctoral Training Institution   |
| <b>RESC</b>     | Residency Evaluation and Standards Committee  |