Basic Standards for
Residency Training in
Orthopedic Surgery

American Osteopathic Association
and
American Osteopathic Academy of Orthopedics

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SECTION I - INTRODUCTION
These are the Basic Standards for Residency Training in Orthopedic Surgery as established by the American Osteopathic Academy of Orthopedics (AOAO) and approved by the American Osteopathic Association (AOA). These standards are designed to provide the osteopathic resident with advanced and concentrated training in orthopedic surgery and to prepare the resident for examination for certification in Orthopedic Surgery by American Osteopathic Board of Orthopedic Surgery (AOBOS).

SECTION II - MISSION
The mission of the osteopathic orthopedic surgery training program is to provide residents with comprehensive structured cognitive and clinical education that will enable them to become competent, proficient and professional osteopathic orthopedic surgeons.

SECTION III – EDUCATIONAL PROGRAM GOALS
3.1 The Orthopedic Surgery Residency training program must document that the residents achieve all Core Competencies as outlined in the AOA Basic Documents.

Residents Must:
3.1.1 Demonstrate correlation between osteopathic musculoskeletal examination and the orthopedic physical examination.
3.1.2 Demonstrate the application of osteopathic principles and practice to their orthopedic patients.

3.2 Patient Care: Residents must be able to provide compassionate care in the treatment of health care problems and the promotion of health in orthopedic surgery.

Residents Must:
3.2.1 Demonstrate competence in all phases of care (preadmission, hospital, operative, palliative, follow up and rehabilitation) of patients

Residents must demonstrate competence in their ability to:
3.2.2 gather essential and accurate information about patients;
3.2.3 make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, evidence-based medicine and clinical judgment;
3.2.4 develop and carry out patient management plans;
3.2.5 provide care aimed at preventing complications and maintaining health;

3.3 Medical Knowledge: Residents must demonstrate knowledge concerning established and evolving biomedical, clinical, cognate (epidemiological and social behavioral) sciences and the application of this knowledge to patient care.

3.3.1 Residents must demonstrate expertise in their knowledge of those areas appropriate for an orthopedic surgeon
3.3.2 Residents must demonstrate an investigating and analytic thinking approach to clinical situations.

3.4 Interpersonal and Communication Skills: Residents must demonstrate interpersonal and communication skills that result in information exchange and teaming with patients, the patient’s families and professional associates.
Residents Must:

3.4.1 create and sustain a therapeutic and ethical relationship with their patients;
3.4.2 use listening skills and elicit and provide information using non-verbal, explanatory questioning and writing skills;
3.4.3 communicate and work with others as a member or leader of a health care team or other professional group;
3.4.4 communicate with patients, families, and the public across all ranges of socioeconomic and cultural backgrounds;
3.4.5 maintain comprehensive, timely, and legible medical records.

3.5 Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities and adherence to ethical principles

Residents Must:

3.5.1 demonstrate respect, compassion, and integrity for others;
3.5.2 demonstrate responsiveness to needs of patients and society that supersedes self-interest;
3.5.3 demonstrate accountability to patients, society and the profession;
3.5.4 demonstrate commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices;
3.5.5 exhibit commitment to excellence and ongoing self-development;
3.5.6 demonstrate sensitivity and responsiveness to diverse patients’ culture, age, gender, race, religion, disabilities, and sexual orientation.

3.6 Systems Based Practice: Resident must demonstrate an awareness of and responsiveness to the larger context and system of health care as well as the ability to call on system resources to provide care that is of optimal value to the orthopedic patient.

Residents Must:

3.6.1 practice cost-effective healthcare and resource allocation that does not compromise quality of care;
3.6.2 advocate for quality patient care and assist patients in dealing with system complexities;
3.6.3 work with healthcare managers and other providers to assess, coordinate, and improve healthcare;
3.6.4 participate in identifying system errors and implementing potential system solutions.

3.7 Practice Based Learning and Improvement: Resident must be able to investigate and evaluate their orthopedic patient care practices, appraise and assimilate scientific evidence to improve their patient care practices.

Residents Must:

3.7.1 systematically analyze practice outcomes using quality improvement methods;
3.7.2 locate, appraise and assimilate evidence from scientific studies related to their patient’s health;
3.7.3 use health information technology to manage information and to access on-line medical information and to support one’s own education;
3.7.4 participate in the education of patient families, students, residents and health care professionals;
3.7.5 set learning and improvement goals and perform learning activities;
3.7.6 identify strength, efficiencies and limitations in one’s knowledge and expertise.

SECTION IV – INSTITUTIONAL REQUIREMENTS

4.1 The institution must be required to have a minimum of four residents, within four (4) years of initial orthopedic surgery residency program approval.

4.2 The institution must maintain permanent institutional records for the graduates of the orthopedic residency program, including the resident annual report, quarterly reports, and written evaluations of residents while they are at affiliate sites and all communications with the AOAO Evaluating Committee.

4.3 The institution must arrange for departmental cooperation in training of orthopedic residents in general surgery, pathology, radiology, internal medicine, osteopathic principles and practice, and physical therapy.

4.4 Signed affiliation agreements with training sites must be submitted annually to the AOAO.

4.5 Written evaluations of the residents while assigned to affiliated training sites, must comply with the AOAO Basic Standards for Residency Training.

SECTION V – PROGRAM REQUIREMENTS AND CONTENT

5.1 General Program Requirements:

5.1.1 The orthopedic surgery residency training program must be a five (5) year continuum.

5.1.2 The minimum size of the program must be four (4) residents.

5.1.3 The program must provide a minimum of two hundred and fifty (250) major orthopedic surgical cases yearly for years OGME-R2 through OGME-R5 for each resident.

5.1.4 Cases logged by a resident at an affiliated institution must be included in the total procedures only if: there is a signed affiliation agreement on file with the AOAO.

5.1.5 The program must maintain a ratio of not more than three (3) residents per AOA board certified orthopedic surgeon.

5.1.6 The surgeons necessary to maintain the 3:1 ratio:

5.1.6.1 Must be active, courtesy or equivalent staff members as determined by the AOAO Evaluating Committee or

5.1.6.2 Must be active, courtesy or equivalent staff members as determined by the AOAO Evaluating Committee of an affiliate institution that has a scheduled rotation for all residents in the program for a minimum of 8 weeks.
5.1.7 The residents must be permitted to complete the current year in training in the event that the minimum ratio is not maintained.

5.1.8 All residents must participate in an annual orthopedic in training examination.

5.1.9 The resident will spend six (6) months of their last twelve (12) months of residency at the primary institution.

5.2 **Didactics**

5.2.1 Conferences and Didactic sessions shall be scheduled to permit residents attendance.

5.2.2 Faculty and residents must attend and participate in regularly scheduled and held teaching rounds, lectures and conferences.

5.2.3 There must be a minimum of five hours of published, scheduled and held didactic sessions per week during which then the resident is excused from clinical duties.

5.2.4 Didactic Curriculum must include:

- 5.2.4.1 Basic Sciences, including pathology, physiology, immunology, pharmacology and microbiology.

- 5.2.4.2 Anatomy, including study and/or dissection of anatomic specimens, lectures or other formed sessions.

- 5.2.4.3 Biomechanics, emphasizing principles, terminology and application to orthopedics.

- 5.2.4.4 Use and interpretation of radiographic and other imaging techniques.

- 5.2.4.5 Rehabilitation of neurologic injury, orthotics and prosthetics.

- 5.2.4.6 Basic motor skills, including proper and safe use of surgical instruments and operative techniques.

- 5.2.4.7 Integration of basic medical sciences into daily clinical activities.

5.3 **Specific requirements for training year OGME-R1:** The first year (1) of the residency program’s general educational content shall include the listed rotation schedule. These shall be scheduled as 12 one-month rotations or 13 four-week rotations or any combination thereof.

- 5.3.1 Two months or rotations of internal medicine

- 5.3.2 One month or rotation of emergency medicine

- 5.3.3 Three months or rotations of general orthopedic surgery

- 5.3.4 One month or rotation of family practice

- 5.3.5 Two months or rotations of non-orthopedic surgery such as vascular, general trauma, basic wound/burn/plastics, urology

- 5.3.6 Three months or rotations of electives upon approval of the program director selected from any of the following areas:

  - general orthopedic surgery
  - foot and ankle
  - hand

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hip and knee
shoulder and elbow
spine
sports medicine
pediatrics or pediatric orthopedics
anesthesiology
radiology
pain management
neurology
neurosurgery
physical medicine and rehabilitation

5.3.7 Supervision of the resident must be shared between the DME and the Orthopedic Program Director.

5.3.8 The resident must be introduced to and be made knowledgeable in the AOAO case log system for the logging of all orthopedic patient encounters.

5.4 Specific requirements for training years OGME-R2 through OGME-R5: All cases must be supervised by an Orthopedic Surgeon specifically trained in the specialty by fellowship or experience.

Minimum rotation length or minimum number of logged cases:

5.4.1 The resident must log four hundred (400) Arthroscopy cases

5.4.2 The resident must serve a three month rotation in hand surgery or log one hundred (100) hand cases

5.4.3 The resident must serve a three month rotation in foot and ankle surgery or log one hundred (100) foot and ankle cases

5.4.4 The resident must serve a three month rotation in pediatric orthopedic surgery or log one hundred (100) pediatric cases

5.4.5 The resident must serve a three month rotation in orthopedic trauma or log one hundred (100) trauma cases

5.4.6 The resident must serve a three month rotation in orthopedic spine or log fifty (50) spine cases.

5.5 Mandatory Courses: The following courses must be provided to each resident by the institution.

5.5.1 The resident must complete a orthopedic pathology course of at least twenty (20) academic hours.

5.5.2 The resident must complete a basic fracture course prior to the start of their OGME-R4 year.

5.5.3 The resident must complete an advanced trauma life support course ATLS prior to the start of OGME-R4 year.

5.5.4 The resident must attend one Annual Meeting or one Post Graduate Seminar of the AOAO prior to starting OGME-R5 year.
SECTION VI – PROGRAM DIRECTOR / FACULTY QUALIFICATIONS AND RESPONSIBILITIES

Program Director Eligibility, Requirements, and Responsibilities:

6.1 **Eligibility**

6.1.1 The Program Director must be a member in good standing of the AOAO.

6.1.2 The Program Director must be certified in orthopedic surgery by the AOA, through the AOBOS for a minimum of two (2) years immediately prior to assuming the position and maintain certification at all times as Program Director.

6.1.3 The Program Director must have been a member of the Core Faculty for a minimum of four (4) years. (Except in New Programs)

6.1.4 The Program Director must be a practicing orthopedic surgeon.

6.1.5 The Program Director must have a minimum of five (5) years of clinical experience in orthopedic surgery following training.

6.1.6 The Program Director must be licensed to practice medicine in the state where the institution is located.

6.1.7 The Program Director must have an active, courtesy or equivalent staff designation as determined by the AOAO Evaluating Committee.

6.2 **Requirements**

6.2.1 The Program Director must attend an Educator’s Course approved by the AOAO at least once every three (3) years.

6.2.2 A new Program Director must take an Educator’s Course during the first full year of his/her tenure as Program Director.

6.3 **Responsibilities**

6.3.1 The Program Director’s authority in directing the residency training program must be defined in the program documents of the institution.

6.3.2 The Program Director must submit quarterly, annual and OGME-R5 mid-year program reports to the AOAO on the case log system.

6.3.3 The Program Director must provide a list of all new residents to the office of the AOAO within 30 days of each new program year.

6.3.4 The Program Director must provide a list of Core Faculty to the office of the AOAO within 30 days of each new program year.

6.3.5 The Program Director must approve the residents’ annual scientific paper or poster.

6.3.6 The Program Director must certify the monthly documentation entered by the resident on the AOAO computerized residency log system within 30 days of the completion of a case.

6.3.7 The Program Director must have access of the AOAO resident database system for each resident in his/her program, which must include electronic signing privileges.

Assistant Program Director Eligibility, Requirements, and Responsibility:

6.4 **Eligibility**
6.4.1 The Assistant Program Director must be a member in good standing of the AOAO.

6.4.2 The Assistant Program Director must be certified in orthopedic surgery by the AOA, through the AOBOS for a minimum of two (2) years immediately prior to assuming the position and maintain certification at all time as Assistant Program Director.

6.4.3 The Assistant Program Director must have been a member of the Core Faculty for a minimum of two (2) years except in new programs.

6.4.4 The Assistant Program Director must be a practicing orthopedic surgeon, educationally and philosophically qualified to conduct the training program.

6.4.5 The Assistant Program Director must have a minimum of five (5) years of clinical experience in orthopedic surgery following training.

6.4.6 The Assistant Program Director must be licensed to practice medicine in the state where the institution is located.

6.4.7 The Assistant Program Director must have an active, courtesy or equivalent staff designation as determined by the AOAO Evaluating Committee.

6.4.8 The Assistant Program Director must continue to meet CME requirements of the AOA.

6.5 Requirements

6.5.1 The Assistant Program Director must attend an Educator’s Course approved by the AOAO at least once every three (3) years.

6.5.2 A new Assistant Program Director must take an Educator’s Course during the first full year of his/her tenure as Assistant Program Director.

6.6 Responsibilities

6.6.1 The Assistant Program Director must assist and complement the Program Director in all phases of the training program.

6.6.2 The Assistant Program Director must have print and view only access of the AOAO resident database system for each of the residents’ in the program.

Core Faculty Eligibility, Requirements, and Responsibilities: Core faculty are those required to meet the 3:1 resident to faculty ratio.

6.7 Eligibility:

6.7.1 The Core Faculty Members must be a member in good standing of the AOAO.

6.7.2 The Core Faculty Members must be certified in orthopedic surgery by the AOA, through the AOBOS and maintain certification at all times as a Core Faculty Member.

6.7.3 The Core Faculty Member must be a practicing orthopedic surgeon, educationally and philosophically qualified to conduct training program and shall have a minimum of three (3) years of clinical experience in orthopedic surgery.

6.7.4 The Core Faculty must be licensed in the state where the institution that sponsors the program is located.
6.7.5 Must have an active, courtesy or equivalent designated staff as determined by the AOAO Evaluating Committee.

6.7.6 The Core Faculty Member must continue to meet CME requirements of the AOA.

6.8 Requirements:

6.8.1 The Core Trainers must attend an Educator’s Course approved by the AOAO at least once every five (5) years.

6.8.2 A new Core Faculty member must take an Educator’s Course during the first full year of his/her tenure.

6.8.3 Core Faculty Members must be responsible to provide at least fifty (50) percent of the clinical and didactic educational experience to the residents.

Faculty Eligibility, Requirements and Responsibilities:

6.9 Eligibility:

6.9.1 All Faculty Members must be practicing orthopedic surgeons, educationally and philosophically qualified to conduct the training program of clinical experience in orthopedic surgery.

6.9.2 All Faculty Member must be licensed in the state where the institution that sponsors the program is located and must have an active, courtesy, or equivalent staff designation as determined by the AOAO Evaluating Committee.

6.9.3 The Faculty members must continue to meet the CME requirements of the AOA.

6.10 Responsibilities:

6.10.1 Faculty Trainers must be responsible to provide the Program Director written assessments of residents under their supervision.

Medical Education Staff

6.11 Eligibility, Requirements and Responsibilities:

6.11.1 Medical Education Staff must consist of administrative/support program staff.

6.11.2 Medical Education Staff must be responsible to assist the Program Director in maintaining educational records of the residents.

6.11.3 Medical Education Staff must have print and view only access of the AOAO resident database system.

SECTION VII – RESIDENT REQUIREMENTS

7.1 Candidates must apply to the AOAO Evaluating Committee for advanced standing if the applicant has completed an AOA approved first year of training.

7.2 During the training program for training years OGME-R3 – OGME-R5, the resident must:

7.2.1 Submit a scientific paper, following AOAO paper guidelines at the close of each training year with the exception of the first and second year of training.

7.2.2 Submit a scientific paper by January 1st OF THE OGME-R5 YEAR.

7.2.3 As an alternative, a scientific poster exhibit may be substituted for one of the required scientific papers during the residency program.
7.2.3.1 The poster must be approved by the Program Director in writing.
7.2.3.2 Poster presentations must only be credited to one presenter.
7.2.3.3 The lead author (only) must be credited for the poster.
7.2.3.4 Poster must follow published AOAO guidelines.

7.3 Duties shall include:

7.3.1 Make admission notes on each patient as well as progress notes, in addition to any notes entered by the attending physician.
7.3.2 Making daily rounds, keeping informed on the status of all assigned patients on the orthopedic service.
7.3.3 Attend all post mortem examinations of orthopedic cases performed in house.
7.3.4 Must attend all meetings of the department/division of orthopedic surgery, general staff meetings, and any other assigned meetings in the hospital.
7.3.5 Resident will serve as assistant under the supervision of the Orthopedic attending in all operative orthopedic cases.
7.3.6 Maintain monthly logs on all assists as well as non-surgical cases attended, examinations performed, minor surgical procedures, professional papers written, meetings attended, postgraduate work, and outside rotations, using the AOAO case log system.
7.3.7 Must assist in the instruction of students in the care of patients on the orthopedic service.
7.3.8 Must document a preoperative patient evaluation with surgical indications and rational.
7.3.9 Must participate in professional staff activities including patient care, department meetings, mortality and morbidity meetings.
7.3.10 Must adhere to all applicable policies, procedures and regulations of the institution, and the AOAO.
7.3.11 The resident must attend a minimum of one (1) AOAO Postgraduate Seminar or one (1) Annual Meeting prior to the beginning of the fifth (5) year of the residency program.

SECTION VIII – EVALUATION

8.1 Each program with the support of the sponsoring institution must have in place an ongoing written evaluation process to continually monitor and improve the quality of the residency program.

8.2 Objective assessment of core competencies shall include these methods in all reports:

Medical Knowledge:

8.2.1 Monthly written evaluations of the resident by the faculty
8.2.2 Critique of journal club presentations by the faculty
8.2.3 Score on OITE
8.3 Patient Care:
8.3.1 Monthly written evaluations of the resident by the faculty

8.4 Interpersonal and Communications Skills:
8.4.1 Critique of lectures, journal club and M & M presentations by faculty
8.4.2 Monthly written evaluations of resident by faculty

8.5 Professionalism:
8.5.1 Critique of M & M and tumor board presentations by faculty
8.5.2 Monthly written evaluations of resident by faculty
8.5.3 Patient satisfaction letters and/or concern data

8.6 Practice-Based Learning and Improvement:
8.6.1 Written critique of the resident scientific paper
8.6.2 Monthly written evaluation of the resident by the faculty

8.7 System-Based Practice:
8.7.1 Case management feedback regarding outliers
8.7.2 Documentation and coding feedback from clinical staff
8.7.3 Monthly written evaluations by the faculty

8.8 Resident Formative and Summative Evaluations:
8.8.1 Logs must document the fulfillment of the requirements of the program, describing the scope, volume, variety, and progressive responsibility by the resident.
8.8.2 Logs must be completed on a monthly basis and recorded in the AOAO computerized residency log system for OGME-R2 through OGME-R5.
8.8.3 Quarterly Reports: must be completed for the first three quarters of the academic training year by the Program Director using the AOAO computerized residency log system and electronically signed with thirty (30) days of the completion of the quarter.
8.8.4 Quarterly reports must include faculty input as well as evaluations from all consortium training sites.
8.8.5 The evaluation must be based upon the educational objectives for each assignment and program activity and include detailed information pertaining to the resident's development and information regarding improvement in any areas necessary.
8.8.6 Residents requiring remediation or counseling must be evaluated monthly.
8.8.7 The AOAO must be notified in writing 60 days prior to the completion of the academic year of any resident in danger of being ineligible for advancing of the next year.
8.8.8 Failure to submit timely reports must result in probation of the program and review by the AOAO Evaluating Committee.

8.9 Annual Reports:
8.9.1 The resident must complete, and electronically submit an annual resident report found on the AOAO computerized residency log system to the AOAO within fifteen (15) days of the completion of each academic year.

8.9.2 A resident who fails to submit a completed signed report within fifteen (15) days must be suspended from the program.

8.9.3 The Program Director must complete and electronically sign and submit the annual program directors report found on the AOAO computerized residency log system to the AOAO within fifteen (15) days of the completion of each academic year.

8.9.4 Residents must submit a satisfactory program evaluation signed by their Program Director.

8.10 OGME-R5 Mid-Year Report:

8.10.1 OGME-R5 residents must submit a mid-year report no later than fifteen (15) days of the completion of the sixth (6th) month of the fifth (5th) year.

8.10.2 A resident who fails to submit a completed signed report within fifteen (15) days must be suspended from the program.

8.10.3 The Program Director must complete electronically, sign and submit the annual program directors report found on the AOAO computerized residency log system to the AOAO within fifteen (15) days of the completion of the first six months of the OGME-R5 year.

8.10.4 This report must be electronically signed by the resident.

8.10.5 A resident who fails to submit a completed signed report within fifteen (15) days must not be eligible to take the AOBOS Board Certification Examination prior to completion of the residency program.

8.11 Faculty:

8.11.1 Residents must evaluate their Program Director and the program by completing and electronically signing the resident’s annual evaluation report of the Program Director and the program within fifteen (15) days of the completion of each academic year.

8.11.2 Annually the program must evaluate teaching faculty performance as it relates to the educational program.

8.12 Site Evaluation:

8.12.1 Must be evaluated as prescribed by the AOAO Inspection Workbook.

8.12.2 All newly approved programs, following the initial first year inspection, will have a consultation by an AOAO-accredited orthopedic surgeon, to comprehensively evaluate and assist the program at the end of the third academic year. This will be provided and funded by the AOAO Evaluating Committee. This process is described in Appendix I.

The purpose of the consultation is to have the AOAO serve as a resource to the program to ensure the clinical and educational value of the program. This review is not intended to alter or change the terms of the accreditation status afforded to the program.
Appendix I - Requirements for a focused site visit or Consultation by the AOAO Evaluating Committee

The Evaluator will require the following documentation:

1. Institution must provide a patient load to train a minimum of four residents in Orthopedic surgery as outlined below: there must be a minimum of 250 orthopedic surgical cases yearly per resident that provide clinical experience of both a surgical and nonsurgical orthopedic nature, details must be available if the specified number of cases occurs in a consortia arrangement of institutions, contracts for such consortia must be available for review.

2. Documentary evidence that substantiates the administrative, financial, educational, and support services must be available to the consultant at the time of the visit.

3. Listing of participating orthopedic surgeons in the program must be available including board certification status and medical licensure at the time of the visit.

4. All residents in the program must be available at the time of the visit for interview by the consultant along with up to date AOAO logs.

5. Documentary evidence of academic program with signed roll sheets and listing of topics must be available for the consultant.

6. The consultant must interview the Program Director, separate from the Residents, and review their credentials.

7. Teaching faculty must be available for interview by the consultant.

Appendix II

The American Association of Orthopedic Surgery (AAOS) Orthopedic in Training Examination (OITE) is mandated to be a confidential resident teaching tool and not a test of achievement, and by virtue of the rules of the AAOS and the AOAO is not permitted to release scores of this test.