

ACGME Program Requirements for Graduate Medical Education in Orthopaedic Surgery

Common Program Requirements are in **BOLD**

Effective: July 1, 2007

Introduction

Int.A. Residency is an essential dimension of the transformation of the medical student to the independent practitioner along the continuum of medical education. It is physically, emotionally, and intellectually demanding, and requires longitudinally-concentrated effort on the part of the resident.

The specialty education of physicians to practice independently is experiential, and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge, and attitudes leading to proficiency in all the domains of clinical competency requires the resident physician to assume personal responsibility for the care of individual patients. For the resident, the essential learning activity is interaction with patients under the guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept—graded and progressive responsibility—is one of the core tenets of American graduate medical education. Supervision in the setting of graduate medical education has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident’s development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

Int.B. Definition and Scope of the Specialty

Orthopaedic surgery is the medical specialty that includes the study and prevention of musculoskeletal diseases, disorders, and injuries and their treatment by medical, surgical, and physical methods.

Int.C. Duration and Scope of Education

Int.C.1. Orthopaedic residencies will be accredited to offer five years of graduate medical education. The orthopaedic residency director is responsible for the design, implementation, and oversight of a PGY-1 year that will prepare residents for specialty education in orthopaedic surgery. This year must include resident participation in clinical and didactic activities that will give them the opportunity to:

Int.C.1.a) develop the knowledge, attitudes, and skills needed to formulate principles and assess, plan, and initiate treatment of adult and pediatric patients with surgical and/or medical problems;

- Int.C.1.b) be involved in the care of patients with surgical and medical emergencies, multiple organ system trauma, soft tissue wounds, nervous system injuries and diseases, peripheral vascular injuries and diseases, and rheumatologic and other medical diseases;
- Int.C.1.c) gain experience in the care of critically ill surgical and medical patients;
- Int.C.1.d) participate in the pre-, intra- and post-operative care of surgical patients; and,
- Int.C.1.e) develop an understanding of surgical anesthesia, including anesthetic risks and the management of intra-operative anesthetic complications.
- Int.C.2. In order to meet these goals, the PGY-1 year must include:
 - Int.C.2.a) a minimum of six months of structured education in surgery, to include multi-system trauma, plastic surgery/burn care, intensive care, and vascular surgery;
 - Int.C.2.b) a minimum of one month of structured education in at least three of the following: emergency medicine, medical/cardiac intensive care, internal medicine, neurology, neurological surgery, pediatric surgery or pediatrics, rheumatology, anesthesiology, musculoskeletal imaging, and rehabilitation; and,
 - Int.C.2.c) a maximum of three months of orthopaedic surgery.
- Int.C.3. The program director is also responsible for the design, implementation and oversight of PGY-2 through PGY-5 years that:
 - Int.C.3.a) must include at least three years of rotations on orthopaedic services, and
 - Int.C.3.b) may include rotations on related services such as plastic surgery, physical medicine and rehabilitation, rheumatology, or neurological surgery.

I. Institutions

I.A. Sponsoring Institution

One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to resident assignments at all participating sites.

The sponsoring institution and the program must ensure that the program director has sufficient protected time and financial support for his or her educational and administrative responsibilities to the program.

- I.A.1. One primary site must provide most of the residents' basic science and research education.
- I.A.1.a) Residents' clinical education at the primary site should include extensive experience in patient care. Preoperative evaluation and postoperative follow-up, as well as evaluation and treatment of patients not requiring surgery, must be included.
- I.A.1.b) Basic science education and the principal clinical conferences should be provided at the primary site. Supplemental conferences may also be provided at other locations, but the program's didactic activities should be provided at the program's primary site.
- I.A.2. In communities where the didactic programs of several residencies are combined, the staff of each accredited program must actively and consistently participate in the combined effort.
- I.A.3. To provide an adequate interdisciplinary educational experience, the institution that sponsors the orthopaedic program should also participate in ACGME-accredited programs in general surgery, internal medicine, and pediatrics.

I.B. Participating Sites

- I.B.1. There must be a program letter of agreement (PLA) between the program and each participating site providing a required assignment. The PLA must be renewed at least every five years.**

The PLA should:

- I.B.1.a) identify the faculty who will assume both educational and supervisory responsibilities for residents;**
- I.B.1.b) specify their responsibilities for teaching, supervision, and formal evaluation of residents, as specified later in this document;**
- I.B.1.c) specify the duration and content of the educational experience; and,**
- I.B.1.d) state the policies and procedures that will govern resident education during the assignment.**
- I.B.2. The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all residents, of one month full time equivalent (FTE) or more through the Accreditation Council for Graduate Medical Education (ACGME) Accreditation Data System (ADS).**
- I.B.3. Participating sites should not be at such a distance from the sponsoring institution as to make resident participation in program conferences and

rounds difficult, unless the participating sites provide comparable activities.

II. Program Personnel and Resources

II.A. Program Director

- II.A.1. There must be a single program director with authority and accountability for the operation of the program. The sponsoring institution's GMC must approve a change in program director. After approval, the program director must submit this change to the ACGME via the ADS.**
- II.A.2. The program director should continue in his or her position for a length of time adequate to maintain continuity of leadership and program stability.**
- II.A.2.a) Programs with acting directors of more than one year's duration will be subject to review, which may include a site visit.**
- II.A.3. Qualifications of the program director must include:**
- II.A.3.a) requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee;**
- II.A.3.b) current certification in the specialty by the American Board of Orthopaedic Surgery, or specialty qualifications that are acceptable to the Review Committee; and,**
- II.A.3.c) current medical licensure and appropriate medical staff appointment.**
- II.A.4. The program director must administer and maintain an educational environment conducive to educating the residents in each of the ACGME competency areas. The program director must:**
- II.A.4.a) oversee and ensure the quality of didactic and clinical education in all sites that participate in the program;**
- II.A.4.b) approve a local director at each participating site who is accountable for resident education;**
- II.A.4.c) approve the selection of program faculty as appropriate;**
- II.A.4.d) evaluate program faculty and approve the continued participation of program faculty based on evaluation;**
- II.A.4.e) monitor resident supervision at all participating sites;**
- II.A.4.f) prepare and submit all information required and requested by**

the ACGME, including but not limited to the program information forms and annual program resident updates to the ADS, and ensure that the information submitted is accurate and complete;

- II.A.4.g) provide each resident with documented semiannual evaluation of performance with feedback;
- II.A.4.h) ensure compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution;
- II.A.4.i) provide verification of residency education for all residents, including those who leave the program prior to completion;
- II.A.4.j) implement policies and procedures consistent with the institutional and program requirements for resident duty hours and the working environment, including moonlighting, and, to that end, must:
 - II.A.4.j).(1) distribute these policies and procedures to the residents and faculty;
 - II.A.4.j).(2) monitor resident duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements;
 - II.A.4.j).(3) adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and,
 - II.A.4.j).(4) if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue.
- II.A.4.k) monitor the need for and ensure the provision of back up support systems when patient care responsibilities are unusually difficult or prolonged;
- II.A.4.l) comply with the sponsoring institution's written policies and procedures, including those specified in the Institutional Requirements, for selection, evaluation and promotion of residents, disciplinary action, and supervision of residents;
- II.A.4.m) be familiar with and comply with ACGME and Review Committee policies and procedures as outlined in the ACGME Manual of Policies and Procedures;
- II.A.4.n) obtain review and approval of the sponsoring institution's GMC/DIO before submitting to the ACGME information or requests for the following:

- II.A.4.n).(1) **all applications for ACGME accreditation of new programs;**
- II.A.4.n).(2) **changes in resident complement;**
- II.A.4.n).(3) **major changes in program structure or length of training;**
- II.A.4.n).(4) **progress reports requested by the Review Committee;**
- II.A.4.n).(5) **responses to all proposed adverse actions;**
- II.A.4.n).(6) **requests for increases or any change to resident duty hours;**
- II.A.4.n).(7) **voluntary withdrawals of ACGME-accredited programs;**
- II.A.4.n).(8) **requests for appeal of an adverse action;**
- II.A.4.n).(9) **appeal presentations to a Board of Appeal or the ACGME; and,**
- II.A.4.n).(10) **proposals to ACGME for approval of innovative educational approaches.**

- II.A.4.o) **obtain DIO review and co-signature on all program information forms, as well as any correspondence or document submitted to the ACGME that addresses:**
 - II.A.4.o).(1) **program citations, and/or**
 - II.A.4.o).(2) **request for changes in the program that would have significant impact, including financial, on the program or institution.**

- II.A.4.p) maintain a file of written descriptions of the educational activities provided at each site involved in the program;
- II.A.4.q) ensure the provision of adequate facilities, teaching staff, resident staff, teaching beds, educational resource materials, outpatient facilities, and research facilities;
- II.A.4.r) maintain a file of current, written institutional and interinstitutional agreements, resident agreements, patient care statistics, the operative experience of individual residents, policies on duty hours and supervision, and regular assessments of resident performance. These documents must be provided on request to the Review Committee or to the site visitor;
- II.A.4.s) ensure that faculty and residents attend and participate in

regularly scheduled and held teaching rounds, lectures, and conferences. Treatment indications, clinical outcomes, complications, morbidity, and mortality must be critically reviewed and discussed on a regular basis. Subjects of mutual interest and the changing practice of medicine should be discussed at interdisciplinary conferences. On average, there must be at least four hours of formal teaching activities each week; and,

II.A.4.t) maintain a current record of research activity by residents and faculty.

II.B. Faculty

II.B.1. At each participating site, there must be a sufficient number of faculty with documented qualifications to instruct and supervise all residents at that location.

The faculty must:

II.B.1.a) devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities; and to demonstrate a strong interest in the education of residents, and

II.B.1.b) administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas.

II.B.2. The physician faculty must have current certification in the specialty by the American Board of Orthopaedic Surgery, or possess qualifications acceptable to the Review Committee.

II.B.2.a) All programs must have at least three faculty members who each devote at least 20 hours each week to the program.

II.B.2.b) There must be at least one full-time faculty equivalent (one FTE equals 45 hours per week devoted to the residency) for every four residents in the program (excluding residents in nonorthopaedic education).

II.B.2.c) The teaching staff must ensure that the structure and content of the residency reflect an education-to-service ratio that identifies residents as students and provides adequate experience in preoperative and postoperative, as well as intraoperative, patient care.

II.B.2.d) The teaching staff must provide direct supervision appropriate to a resident's competence and level of training in all patient care settings, including operative, inpatient, outpatient, and emergency.

II.B.3. The physician faculty must possess current medical licensure and

appropriate medical staff appointment.

II.B.4. The nonphysician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments.

II.B.5. The faculty must establish and maintain an environment of inquiry and scholarship with an active research component.

II.B.5.a) The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences.

II.B.5.b) Some members of the faculty should also demonstrate scholarship by one or more of the following:

II.B.5.b).(1) peer-reviewed funding;

II.B.5.b).(2) publication of original research or review articles in peer-reviewed journals, or chapters in textbooks;

II.B.5.b).(3) publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or,

II.B.5.b).(4) participation in national committees or educational organizations.

II.B.5.c) Faculty should encourage and support residents in scholarly activities.

II.C. Other Program Personnel

The institution and the program must jointly ensure the availability of all necessary professional, technical, and clerical personnel for the effective administration of the program.

II.D. Resources

The institution and the program must jointly ensure the availability of adequate resources for resident education, as defined in the specialty program requirements.

II.E. Medical Information Access

Residents must have ready access to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities should be available.

III. Resident Appointments

III.A. Eligibility Criteria

The program director must comply with the criteria for resident eligibility as specified in the Institutional Requirements.

III.A.1. Programs are encouraged to recognize the value and importance of recruiting qualified women and minority students.

III.B. Number of Residents

The program director may not appoint more residents than approved by the Review Committee, unless otherwise stated in the specialty-specific requirements. The program's educational resources must be adequate to support the number of residents appointed to the program.

III.B.1. The Review Committee will approve both the total number of residents to be educated in the program and at each level of the program.

III.C. Resident Transfers

III.C.1. **Before accepting a resident who is transferring from another program, the program director must obtain written or electronic verification of previous educational experiences and a summative competency-based performance evaluation of the transferring resident.**

III.C.2. **A program director must provide timely verification of residency education and summative performance evaluations for residents who leave the program prior to completion.**

III.D. Appointment of Fellows and Other Learners

The presence of other learners (including, but not limited to, residents from other specialties, subspecialty fellows, PhD students, and nurse practitioners) in the program must not interfere with the appointed residents' education. The program director must report the presence of other learners to the DIO and GMEC in accordance with sponsoring institution guidelines.

IV. Educational Program

IV.A. **The curriculum must contain the following educational components:**

IV.A.1. **Overall educational goals for the program, which the program must distribute to residents and faculty annually;**

IV.A.2. **Competency-based goals and objectives for each assignment at each educational level, which the program must distribute to residents and faculty annually, in either written or electronic form. These should be reviewed by the resident at the start of each rotation;**

IV.A.3. **Regularly scheduled didactic sessions;**

IV.A.4. Delineation of resident responsibilities for patient care, progressive responsibility for patient management, and supervision of residents over the continuum of the program; and,

IV.A.5. ACGME Competencies

The program must integrate the following ACGME competencies into the curriculum:

IV.A.5.a) Patient Care

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents:

IV.A.5.a).(1) must have clinical problems of sufficient variety and volume to afford the residents adequate experience in the diagnosis and management of adult and pediatric orthopaedic disorders. The residents' clinical experience must include adult orthopaedic surgery, including joint reconstruction; pediatric orthopaedic surgery, including pediatric trauma; trauma, including multisystem trauma; surgery of the spine, including disk surgery, spinal trauma, and spinal deformities; hand surgery; foot surgery in adults and children; athletic injuries, including arthroscopy; metastatic disease; and orthopaedic rehabilitation, including amputations and postamputation care;

IV.A.5.a).(2) must develop competence in the preadmission care, hospital care, operative care, and follow-up care (including rehabilitation) of patients. Opportunities for resident involvement in all aspects of care of the same patient should be maximized;

IV.A.5.a).(3) must have adequate experience in nonoperative outpatient diagnosis and care, including all orthopaedic anatomic areas and patients of all age groups. Each week residents must have at least one-half day and should have two-half days of outpatient clinical experience in physician offices or hospital clinics with a minimum of 10 patients per session on all clinical rotations. Residents must be directly supervised by faculty and instructed in pre- and post-operative assessment as well as the operative and non-operative care of general and subspecialty orthopaedic patients. Opportunities for resident involvement in all aspects of outpatient care of the same patient should be maximized;

IV.A.5.a).(4) must have the opportunity to assume increasing responsibility for patient care, under direct faculty

supervision (as appropriate for each resident's ability and experience), as they progress through a program. Inpatient and outpatient experience with all age groups is necessary;

- IV.A.5.a).(5) must have instruction in basic motor skills, including proper use of surgical instruments and operative techniques. Evaluation of new or experimental techniques and/or materials should be emphasized. The application of basic motor skills must be integrated into daily clinical activities, especially in the operating room; and,
- IV.A.5.a).(6) are expected to:
- IV.A.5.a).(6).(a) communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families;
- IV.A.5.a).(6).(b) gather essential and accurate information about their patients;
- IV.A.5.a).(6).(c) make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment;
- IV.A.5.a).(6).(d) develop and carry out patient management plans;
- IV.A.5.a).(6).(e) counsel and educate patients and their families;
- IV.A.5.a).(6).(f) demonstrate the ability to practice culturally competent medicine;
- IV.A.5.a).(6).(g) use information technology to support patient care decisions and patient education;
- IV.A.5.a).(6).(h) perform competently all medical and invasive procedures considered essential for the area of practice;
- IV.A.5.a).(6).(i) provide health care services aimed at preventing health problems or maintaining health; and,
- IV.A.5.a).(6).(j) work with health care professionals, including those from other disciplines, to provide patient-focused care.

IV.A.5.b)

Medical Knowledge

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-

behavioral sciences, as well as the application of this knowledge to patient care. Residents:

- IV.A.5.b).(1) must have basic science education anatomy, biomechanics, pathology, and physiology. The basic science program must also include resident education in embryology, immunology, pharmacology, biochemistry, and microbiology;
- IV.A.5.b).(2) must have instruction in anatomy that includes study and dissection of anatomic specimens by the residents and lectures or other formal sessions;
- IV.A.5.b).(3) must have instruction in pathology that includes correlative pathology in which gross and microscopic pathology are related to clinical and roentgenographic findings;
- IV.A.5.b).(4) should have instruction in biomechanics presented in seminars or conferences emphasizing principles, terminology, and application to orthopaedic surgery;
- IV.A.5.b).(5) must have organized instruction in the basic medical sciences integrated into the daily clinical activities by clearly linking the pathophysiologic process and findings to the diagnosis, treatment, and management of clinical disorders;
- IV.A.5.b).(6) must have organized instruction in the appropriate use and interpretation of radiographic and other imaging techniques;
- IV.A.5.b).(7) must have education that includes orthopaedic oncology, rehabilitation of neurologic injury and disease, spinal cord injury rehabilitation, orthotics and prosthetics, and the ethics of medical practice; and,
- IV.A.5.b).(8) are expected to:
- IV.A.5.b).(8).(a) demonstrate an investigatory and analytic thinking approach to clinical situations, and
- IV.A.5.b).(8).(b) know and apply the basic and clinically supportive sciences which are appropriate to orthopaedic surgery.

IV.A.5.c)

Practice-based Learning and Improvement

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

Residents are expected to develop skills and habits to be able to meet the following goals:

- IV.A.5.c).(1) identify strengths, deficiencies, and limits in one's knowledge and expertise;**
- IV.A.5.c).(2) set learning and improvement goals;**
- IV.A.5.c).(3) identify and perform appropriate learning activities;**
- IV.A.5.c).(4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;**
- IV.A.5.c).(5) incorporate formative evaluation feedback into daily practice;**
- IV.A.5.c).(6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;**
- IV.A.5.c).(7) use information technology to optimize learning; and,**
- IV.A.5.c).(8) participate in the education of patients, families, students, residents and other health professionals.**
- IV.A.5.c).(9) obtain and use information about their own population of patients and the larger population from which their patients are drawn, and**
- IV.A.5.c).(10) apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.**

IV.A.5.d) Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents are expected to:

- IV.A.5.d).(1) communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;**
- IV.A.5.d).(2) communicate effectively with physicians, other health professionals, and health related agencies;**
- IV.A.5.d).(3) work effectively as a member or leader of a health care team or other professional group;**

- IV.A.5.d).(4) **act in a consultative role to other physicians and health professionals; and,**
- IV.A.5.d).(5) **maintain comprehensive, timely, and legible medical records, if applicable.**
- IV.A.5.d).(6) create and sustain a therapeutic and ethically sound relationship with patients, and
- IV.A.5.d).(7) use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.

IV.A.5.e) Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents are expected to demonstrate:

- IV.A.5.e).(1) **compassion, integrity, and respect for others;**
- IV.A.5.e).(2) **responsiveness to patient needs that supersedes self-interest;**
- IV.A.5.e).(3) **respect for patient privacy and autonomy;**
- IV.A.5.e).(4) **accountability to patients, society and the profession; and,**
- IV.A.5.e).(5) **sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.**
- IV.A.5.e).(6) commitment to excellence and ongoing professional development;
- IV.A.5.e).(7) commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices; and,
- IV.A.5.e).(8) sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

IV.A.5.f) Systems-based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Residents are expected to:

- IV.A.5.f).(1) **work effectively in various health care delivery settings and systems relevant to their clinical specialty;**
- IV.A.5.f).(2) **coordinate patient care within the health care system relevant to their clinical specialty;**
- IV.A.5.f).(3) **incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;**
- IV.A.5.f).(4) **advocate for quality patient care and optimal patient care systems;**
- IV.A.5.f).(5) **work in interprofessional teams to enhance patient safety and improve patient care quality; and,**
- IV.A.5.f).(6) **participate in identifying system errors and implementing potential systems solutions.**
- IV.A.5.f).(7) understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice, and
- IV.A.5.f).(8) know how types of medical practice and delivery systems differ from one another, including methods of controlling healthcare costs and allocating resources.

IV.B. Residents' Scholarly Activities

- IV.B.1. **The curriculum must advance residents' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.**
- IV.B.2. **Residents should participate in scholarly activity.**
 - IV.B.2.a) Resident education must include instruction in experimental design, hypothesis testing, and other current research methods, as well as participation in clinical or basic research so that residents may develop their abilities to critically evaluate medical literature, research, and other scholarly activity.
- IV.B.3. **The sponsoring institution and program should allocate adequate educational resources to facilitate resident involvement in scholarly activities.**
 - IV.B.3.a) Resources for scholarly activity by residents must include laboratory space and equipment, computer and data analysis

services, statistical consultation services, research conferences, faculty expertise and supervision, support personnel, time, and funding.

V. Evaluation

V.A. Resident Evaluation

V.A.1. Formative Evaluation

V.A.1.a) The faculty must evaluate resident performance in a timely manner during each rotation or similar educational assignment, and document this evaluation at completion of the assignment.

V.A.1.b) The program must:

V.A.1.b).(1) provide objective assessments of competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice;

V.A.1.b).(2) use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff);

V.A.1.b).(3) document progressive resident performance improvement appropriate to educational level; and,

V.A.1.b).(4) provide each resident with documented semiannual evaluation of performance with feedback.

V.A.1.c) The evaluations of resident performance must be accessible for review by the resident, in accordance with institutional policy.

V.A.2. Summative Evaluation

The program director must provide a summative evaluation for each resident upon completion of the program. This evaluation must become part of the resident's permanent record maintained by the institution, and must be accessible for review by the resident in accordance with institutional policy. This evaluation must:

V.A.2.a) document the resident's performance during the final period of education, and

V.A.2.b) verify that the resident has demonstrated sufficient competence to enter practice without direct supervision.

V.B. Faculty Evaluation

V.B.1. At least annually, the program must evaluate faculty performance as it relates to the educational program.

V.B.2. These evaluations should include a review of the faculty's clinical teaching abilities, commitment to the educational program, clinical knowledge, professionalism, and scholarly activities.

V.B.3. This evaluation must include at least annual written confidential evaluations by the residents.

V.C. Program Evaluation and Improvement

V.C.1. The program must document formal, systematic evaluation of the curriculum at least annually. The program must monitor and track each of the following areas:

V.C.1.a) resident performance;

V.C.1.b) faculty development;

V.C.1.c) graduate performance, including performance of program graduates on the certification examination; and,

V.C.1.d) program quality. Specifically:

V.C.1.d).(1) Residents and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and

V.C.1.d).(2) The program must use the results of residents' assessments of the program together with other program evaluation results to improve the program.

V.C.2. If deficiencies are found, the program should prepare a written plan of action to document initiatives to improve performance in the areas listed in section V.C.1. The action plan should be reviewed and approved by the teaching faculty and documented in meeting minutes.

V.C.3. Program graduates should take both Part I and Part II of the American Board of Orthopaedic Surgery examinations and at least 75% of those who take the exams for the first time should pass.

VI. Resident Duty Hours in the Learning and Working Environment

VI.A. Professionalism, Personal Responsibility, and Patient Safety

VI.A.1. Programs and sponsoring institutions must educate residents and faculty members concerning the professional responsibilities of physicians to appear for duty appropriately rested and fit to provide

the services required by their patients.

- VI.A.2. The program must be committed to and responsible for promoting patient safety and resident well-being in a supportive educational environment.**
- VI.A.3. The program director must ensure that residents are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.**
- VI.A.4. The learning objectives of the program must:**
 - VI.A.4.a) be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; and,**
 - VI.A.4.b) not be compromised by excessive reliance on residents to fulfill non-physician service obligations.**
- VI.A.5. The program director and institution must ensure a culture of professionalism that supports patient safety and personal responsibility. Residents and faculty members must demonstrate an understanding and acceptance of their personal role in the following:**
 - VI.A.5.a) assurance of the safety and welfare of patients entrusted to their care;**
 - VI.A.5.b) provision of patient- and family-centered care;**
 - VI.A.5.c) assurance of their fitness for duty;**
 - VI.A.5.d) management of their time before, during, and after clinical assignments;**
 - VI.A.5.e) recognition of impairment, including illness and fatigue, in themselves and in their peers;**
 - VI.A.5.f) attention to lifelong learning;**
 - VI.A.5.g) the monitoring of their patient care performance improvement indicators; and,**
 - VI.A.5.h) honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.**
- VI.A.6. All residents and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. Physicians must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient's care to another qualified and rested provider.**

VI.B. Transitions of Care

VI.B.1. Programs must design clinical assignments to minimize the number of transitions in patient care.

VI.B.2. Sponsoring institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.

VI.B.3. Programs must ensure that residents are competent in communicating with team members in the hand-over process.

VI.B.4. The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and residents currently responsible for each patient's care.

VI.C. Alertness Management/Fatigue Mitigation

VI.C.1. The program must:

VI.C.1.a) educate all faculty members and residents to recognize the signs of fatigue and sleep deprivation;

VI.C.1.b) educate all faculty members and residents in alertness management and fatigue mitigation processes; and,

VI.C.1.c) adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning, such as naps or back-up call schedules.

VI.C.2. Each program must have a process to ensure continuity of patient care in the event that a resident may be unable to perform his/her patient care duties.

VI.C.3. The sponsoring institution must provide adequate sleep facilities and/or safe transportation options for residents who may be too fatigued to safely return home.

VI.D. Supervision of Residents

VI.D.1. In the clinical learning environment, each patient must have an identifiable, appropriately-credentialed and privileged attending physician (or licensed independent practitioner as approved by each Review Committee) who is ultimately responsible for that patient's care.

A licensed independent practitioner may include non-physician faculty working in conjunction with the orthopaedic surgery department.

- VI.D.1.a)** This information should be available to residents, faculty members, and patients.
- VI.D.1.b)** Residents and faculty members should inform patients of their respective roles in each patient's care.
- VI.D.2.** The program must demonstrate that the appropriate level of supervision is in place for all residents who care for patients.
- Supervision may be exercised through a variety of methods. Some activities require the physical presence of the supervising faculty member. For many aspects of patient care, the supervising physician may be a more advanced resident or fellow. Other portions of care provided by the resident can be adequately supervised by the immediate availability of the supervising faculty member or resident physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of resident-delivered care with feedback as to the appropriateness of that care.
- VI.D.3.** Levels of Supervision
- To ensure oversight of resident supervision and graded authority and responsibility, the program must use the following classification of supervision:
- VI.D.3.a)** Direct Supervision – the supervising physician is physically present with the resident and patient.
- VI.D.3.b)** Indirect Supervision:
- VI.D.3.b).(1)** with direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.
- VI.D.3.b).(2)** with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
- VI.D.3.c)** Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.
- VI.D.4.** The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each resident must be assigned by the program director and faculty members.

- VI.D.4.a)** The program director must evaluate each resident's abilities based on specific criteria. When available, evaluation should be guided by specific national standards-based criteria.
- VI.D.4.b)** Faculty members functioning as supervising physicians should delegate portions of care to residents, based on the needs of the patient and the skills of the residents.
- VI.D.4.c)** Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow.
- VI.D.5.** Programs must set guidelines for circumstances and events in which residents must communicate with appropriate supervising faculty members, such as the transfer of a patient to an intensive care unit, or end-of-life decisions.
- VI.D.5.a)** Each resident must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence.
- VI.D.5.a).(1)** In particular, PGY-1 residents should be supervised either directly or indirectly with direct supervision immediately available.
- VI.D.6.** Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each resident and delegate to him/her the appropriate level of patient care authority and responsibility.
- VI.E. Clinical Responsibilities**
- The clinical responsibilities for each resident must be based on PGY-level, patient safety, resident education, severity and complexity of patient illness/condition and available support services.
- VI.F. Teamwork**
- Residents must care for patients in an environment that maximizes effective communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty.
- VI.G. Resident Duty Hours**
- VI.G.1. Maximum Hours of Work per Week**
- Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all

moonlighting.

VI.G.1.a) Duty Hour Exceptions

A Review Committee may grant exceptions for up to 10% or a maximum of 88 hours to individual programs based on a sound educational rationale.

VI.G.1.a).(1) In preparing a request for an exception the program director must follow the duty hour exception policy from the ACGME Manual on Policies and Procedures.

VI.G.1.a).(2) Prior to submitting the request to the Review Committee, the program director must obtain approval of the institution's GMEC and DIO.

VI.G.2. Moonlighting

VI.G.2.a) Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program.

VI.G.2.b) Time spent by residents in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit.

VI.G.2.c) PGY-1 residents are not permitted to moonlight.

VI.G.3. Mandatory Time Free of Duty

Residents must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days.

VI.G.4. Maximum Duty Period Length

VI.G.4.a) Duty periods of PGY-1 residents must not exceed 16 hours in duration.

VI.G.4.b) Duty periods of PGY-2 residents and above may be scheduled to a maximum of 24 hours of continuous duty in the hospital. Programs must encourage residents to use alertness management strategies in the context of patient care responsibilities. Strategic napping, especially after 16 hours of continuous duty and between the hours of 10:00 p.m. and 8:00 a.m., is strongly suggested.

VI.G.4.b).(1) It is essential for patient safety and resident education that effective transitions in care occur. Residents may be allowed to remain on-site in order to accomplish these tasks; however, this period of time must be no

longer than an additional four hours.

VI.G.4.b).(2) Residents must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.

VI.G.4.b).(3) In unusual circumstances, residents, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family.

VI.G.4.b).(3).(a) Under those circumstances, the resident must:

VI.G.4.b).(3).(a).(i) appropriately hand over the care of all other patients to the team responsible for their continuing care; and,

VI.G.4.b).(3).(a).(ii) document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.

VI.G.4.b).(3).(b) The program director must review each submission of additional service, and track both individual resident and program-wide episodes of additional duty.

VI.G.5. Minimum Time Off between Scheduled Duty Periods

VI.G.5.a) PGY-1 residents should have 10 hours, and must have eight hours, free of duty between scheduled duty periods.

VI.G.5.b) Intermediate-level residents should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

PGY-2 and PGY-3 residents are considered to be at the intermediate level.

VI.G.5.c) Residents in the final years of education must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.

PGY-4 and PGY-5 residents are considered to be in the final years of education.

- VI.G.5.c).(1)** This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in-seven standards. While it is desirable that residents in their final years of education have eight hours free of duty between scheduled duty periods, there may be circumstances when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.
- VI.G.5.c).(1).(a)** Circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by residents in their final years of education must be monitored by the program director.
- VI.G.5.c).(1).(b)** The Review Committee defines such circumstances as: required continuity of care for a severely ill or unstable patient, or a complex patient with whom the resident has been involved; events of exceptional educational value; or, humanistic attention to the needs of a patient or family.
- VI.G.6. Maximum Frequency of In-House Night Float**
- Residents must not be scheduled for more than six consecutive nights of night float.**
- VI.G.6.a)** Night float may not exceed three months per year.
- VI.G.7. Maximum In-House On-Call Frequency**
- PGY-2 residents and above must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).**
- VI.G.8. At-Home Call**
- VI.G.8.a)** Time spent in the hospital by residents on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.
- VI.G.8.a).(1)** At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.
- VI.G.8.b)** Residents are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty

period”.

VII. Innovative Projects

Requests for innovative projects that may deviate from the institutional, common and/or specialty specific program requirements must be approved in advance by the Review Committee. In preparing requests, the program director must follow Procedures for Approving Proposals for Innovative Projects located in the ACGME Manual on Policies and Procedures. Once a Review Committee approves a project, the sponsoring institution and program are jointly responsible for the quality of education offered to residents for the duration of such a project.

ACGME Approved: June 11, 2001 Effective: July 1, 2002
Revised Program Requirements Effective: July 1, 2007
Revised Common Program Requirements Effective: July 1, 2011