

# ACGME Program Requirements for Graduate Medical Education in Anesthesiology

*Common Program Requirements are in BOLD*

*Effective: July 1, 2007*

## Introduction

### A. Definition and Scope of the Specialty

The Review Committee representing the medical specialty of anesthesiology exists to foster and maintain the highest standards of training and educational facilities in anesthesiology, which is the practice of medicine dealing with, but not limited to, the following:

1. assessment of, consultation for, and preparation of patients for anesthesia;
2. pain relief and prevention during and following surgical, obstetric, therapeutic, and diagnostic procedures;
3. monitoring and maintenance of normal physiology during the perioperative period;
4. managing critically ill patients;
5. diagnosis and treatment of acute, chronic, and cancer-related pain;
6. clinical management and teaching of cardiac and pulmonary resuscitation;
7. evaluation of respiratory function and application of respiratory therapy;
8. conducting clinical and basic science research; and,
9. supervising, teaching, and evaluating those professionals, both medical and paramedical, involved in perioperative care.

### B. Duration and Scope of Education

#### 1. Length of Program

A minimum of four years of graduate medical education is necessary to train a physician in the field of anesthesiology. Three years of the training must be in clinical anesthesia. The Review

Committee for Anesthesiology and the Accreditation Council for Graduate Medical Education (ACGME) accredit programs only in those sites possessing the educational resources to provide three years of clinical anesthesia training. The capability to provide the Clinical Base Year (CBY) within the same institution is desirable but not required for accreditation.

## 2. Program Design

The continuum of education in anesthesiology consists of four years of training: the Clinical Base Year and 36 months of clinical anesthesia training (CA-1, CA-2, and CA-3 years).

### a) Clinical Base Year

- (1) One year of the total training must be the Clinical Base Year, which should provide the resident with 12 months of broad education in medical disciplines relevant to the practice of anesthesiology. The Clinical Base Year usually precedes training in clinical anesthesia and it is strongly recommended that this year be completed before the resident begins the CA-2 year. The resident must complete the Clinical Base Year before beginning the CA-3 year.
- (2) The Clinical Base Year must include at least 10 months of clinical rotations, of which only one month, at most, may involve training in anesthesiology. These rotations include training in internal medicine or emergency medicine, pediatrics, surgery or any of the surgical specialties, critical care medicine, obstetrics and gynecology, neurology, family practice, or any combination of these. The remaining two months, at most, of the Clinical Base Year may be taken in electives or in specialties other than those listed above. If an accredited anesthesiology program offers this year of training, the Review Committee will verify that the content is acceptable. When the parent institution provides the Clinical Base Year, the anesthesiology program director must approve the rotations for individual residents, and must have general oversight for rotations on the services that are used for that Year.

### b) Clinical Anesthesia Training: CA-1 through CA-3 Years

- (1) These three years, usually the second through the

fourth years of graduate medical education, consist of training in basic and advanced anesthesia. They years must encompass all aspects of perioperative care, including evaluation and management during the preoperative, intraoperative, and postoperative periods. The clinical training must progressively challenge the resident's intellect and technical skills, and must provide experience in direct and progressively responsible patient management. As the resident advances through training, she or he should have the opportunity to plan and administer anesthesia care for patients with severe and complicated diseases, as well as patients who undergo complex surgical procedures. The training must culminate in resident's having sufficiently independent responsibility for clinical decision-making and patient care. In this way, the program can ensure that the graduating resident exhibits sound clinical judgment in a wide variety of clinical situations and can function as a consultant in anesthesiology.

(2) CA-1 and -2 years

- (a) The program must emphasize the fundamental aspects of anesthesia during this period. At least 12 months of the CA-1 and CA-2 years should be spent in basic anesthesia training, with the majority of this time occurring within the CA-1 year. Residents should receive training in the complex technology and equipment associated with the practice of anesthesiology. There must be documented evidence of direct faculty involvement with tutorials, lectures, and clinical supervision of beginning residents.
- (b) Anesthesiology encompasses the theoretical background and clinical practice of a variety of subspecialty disciplines. Exposure to these should occupy a minimum of seven months in the CA-1 and CA-2 years. There must be identifiable one -month rotations in obstetric anesthesia, pediatric anesthesia, neuroanesthesia, and cardiothoracic anesthesia. Experiences in perioperative care must include a -month rotation in critical care, a one month rotation in pain management, and

two continuous weeks in the postanesthesia care unit.

- (c) The program director may determine the sequencing of these rotations. The resident should be evaluated following each rotation, and the written evaluations should be maintained in each resident's file. There must be a written description of each rotation in the CA-1 and CA-2 years. The goals and objectives for the CA-1 and CA-2 experience must be separate and distinct from those designed for the CA-3 year training.

(3) CA-3 year

- (a) The program must provide 12 months' experience in advanced and complex anesthesia assignments in the CA-3 year. In addition, the resident must complete an academic assignment. A curriculum for the CA-3 year, as well as the specific program for each resident, must be on file in the department.
- (b) Clinical assignments in the CA-3 year must include difficult or complex anesthesia procedures and the care of seriously ill patients. Subspecialty rotations are encouraged, but none may be longer than six months. A curriculum specific to each of the subspecialty programs offered must be on file in the department. This curriculum must be distinct from the CA-1 and CA-2 years' subspecialty curricula, and must reflect increased responsibility and learning opportunities. These assignments must not compromise the learning opportunities for the CA-1 and CA-2 residents.
- (c) All CA-3 residents must be certified as providers of advanced cardiac life support (ACLS).
- (d) Academic projects may include special training assignments, grand rounds presentations, preparation and publication of review articles, book chapters, manuals for teaching or clinical

practice, or similar academic activities. A faculty supervisor must be in charge of each project. The academic project may, at the program director's discretion, occur prior to the CA-3 year.

c) Research Track

- (1) The program must have the resources to provide a research track of up to six months devoted to laboratory or clinical investigation. For the residents who elect this track, it is expected that the results of the investigations will be suitable for presentation at a local, regional, or national scientific meeting. The research track generally occurs in the CA-3 year, but at the program director's discretion, it may be taken earlier. A curriculum describing the goals and objectives of this track must be on file in the department.

C. Goals and Objectives

1. An accredited program in anesthesiology must provide education, training, and experience in an atmosphere of mutual respect between instructor and residents so that residents will be stimulated and prepared to apply acquired knowledge and talents independently. The program must provide an environment that promotes the acquisition of the knowledge, skills, clinical judgment, and attitudes essential to the practice of anesthesiology.
2. In addition to clinical skills, the program should emphasize interpersonal skills, effective communication, and professionalism, as outlined in section IV.A.5. of these requirements. The residency program must work toward ensuring that its residents, by the time they graduate, possess the skills, attitudes, and behaviors as described below.
3. These objectives can be achieved only when the program leadership, faculty, supporting staff, and administration demonstrate a commitment to the educational program and provide appropriate resources and facilities. Service commitments must not compromise the achievement of educational goals and objectives.

## **I. Institutions**

### **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.**

1. The institution sponsoring an accredited program in anesthesiology must also sponsor or be affiliated with ACGME-approved residencies in at least the specialties of general surgery and internal medicine.

### **B. Participating Sites**

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:**

- a) **identify the faculty who will assume both educational and supervisory responsibilities for residents;**
  - b) **specify their responsibilities for teaching, supervision, and formal evaluation of residents, as specified later in this document;**
  - c) **specify the duration and content of the educational experience; and,**
  - d) **state the policies and procedures that will govern resident education during the assignment.**
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).**

3. A participating site may be either *integrated* or *non-integrated* with the parent institution:
  - a) An *integrated site* must formally acknowledge the authority of the core program director over the educational program in that hospital, including the appointments of all faculty and all residents. Integrated sites should be in close geographic proximity to the parent institution to allow all residents to attend joint conferences. If a site is not in geographic proximity and joint conferences cannot be held, an equivalent educational program in the integrated site must be fully established and documented. Rotations to integrated sites are not limited in duration and require prior approval of the Review Committee. It is expected, however, that the majority of the program will be provided in the parent institution.
  - b) A *non-integrated site* is one that is related to the core program for the purpose of providing limited rotations complementing experience available in the parent institution. Residents must have assignments at non-integrated sites for educational purposes and not to fulfill service needs. Rotations to non-integrated sites may be no more than a maximum of 12 months during the three years of clinical anesthesia. Prior approval of the Review Committee must be obtained if the duration of a rotation at a non-integrated site will exceed six months.

## II. Program Personnel and Resources

### A. Program Director

1. **There must be a single program director with authority and accountability for the operation of the program. The sponsoring institution's GMEC must approve a change in program director. After approval, the program director must submit this change to the ACGME via the ADS.**
  - a) Frequent changes in leadership or long periods of temporary leadership may adversely affect an educational program and may present serious cause for concern. When a new director, either permanent or acting, has been appointed, the Review Committee must be notified immediately. The Review Committee may initiate an inspection of the program in conjunction with this change when it deems it necessary to ensure continuing quality.

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.**
3. **Qualifications of the program director must include:**
  - a) **requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee;**
  - b) **current certification in the specialty by the American Board of Anesthesiology, or specialty qualifications that are acceptable to the Review Committee; and,**
  - c) **current medical licensure and appropriate medical staff appointment.**
  - d) The program director must possess faculty experience, leadership, organizational and administrative qualifications, and the ability to function effectively within institutional governance. The program director must have significant academic achievements in anesthesiology, such as publications, the development of educational programs, or the conduct of research.
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:**
  - a) **oversee and ensure the quality of didactic and clinical education in all sites that participate in the program;**
  - b) **approve a local director at each participating site who is accountable for resident education;**
  - c) **approve the selection of program faculty as appropriate;**
  - d) **evaluate program faculty and approve the continued participation of program faculty based on evaluation;**
  - e) **monitor resident supervision at all participating sites;**
  - 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;**

- g) provide each resident with documented semiannual evaluation of performance with feedback;**
- h) ensure compliance with grievance and due process procedures as set forth in the Institutional Requirements and implemented by the sponsoring institution;**
- i) provide verification of residency education for all residents, including those who leave the program prior to completion;**
- 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:**
  - (1) distribute these policies and procedures to the residents and faculty;**
  - (2) monitor resident duty hours, according to sponsoring institutional policies, with a frequency sufficient to ensure compliance with ACGME requirements;**
  - (3) adjust schedules as necessary to mitigate excessive service demands and/or fatigue; and,**
  - (4) if applicable, monitor the demands of at-home call and adjust schedules as necessary to mitigate excessive service demands and/or fatigue.**
- k) monitor the need for and ensure the provision of back up support systems when patient care responsibilities are unusually difficult or prolonged;**
- 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;**
- m) be familiar with and comply with ACGME and Review Committee policies and procedures as outlined in the ACGME Manual of Policies and Procedures;**

- n) obtain review and approval of the sponsoring institution's GMEC/DIO before submitting to the ACGME information or requests for the following:**

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

  - (1) program citations, and/or**
  - (2) request for changes in the program that would have significant impact, including financial, on the program or institution.**
- p) must ensure that the residency program has a written policy and an educational program regarding substance abuse that specifically address the needs of anesthesiology;**

- q) must require residents to maintain an electronic record of their clinical experience. The record must be reviewed by the program director or faculty on a regular basis. It must be submitted annually to the Review Committee office in accordance with the format and the due date specified by the Review Committee; and,
- r) should also have the means for monitoring the appropriate distribution of cases among the residents.

## **B. Faculty**

- 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:**

- 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**
  - b) **administer and maintain an educational environment conducive to educating residents in each of the ACGME competency areas.**
- 2. The physician faculty must have current certification in the specialty by the American Board of Anesthesiology, or possess qualifications acceptable to the Review Committee.**
    - a) The number of faculty must be sufficient to provide each resident with adequate supervision, which shall not vary substantially with the time of day or the day of the week. In the clinical setting, faculty members should not direct anesthesia at more than two anesthetizing locations simultaneously.
    - b) Faculty who are not ABA-certified should be in the process of obtaining certification.
  - 3. The physician faculty must possess current medical licensure and appropriate medical staff appointment.**
  - 4. The nonphysician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments.**

5. **The faculty must establish and maintain an environment of inquiry and scholarship with an active research component.**
  - a) **The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences.**
  - b) **Some members of the faculty should also demonstrate scholarship by one or more of the following:**
    - (1) **peer-reviewed funding;**
    - (2) **publication of original research or review articles in peer-reviewed journals, or chapters in textbooks;**
    - (3) **publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or,**
    - (4) **participation in national committees or educational organizations.**
  - c) **Faculty should encourage and support residents in scholarly activities.**
6. **The faculty should have varying interests, capabilities, and backgrounds, and must include individuals who have specialized expertise in the subspecialties of anesthesiology, which includes but is not limited to critical care, obstetric anesthesia, pediatric anesthesia, neuroanesthesia, cardiothoracic anesthesia, and pain management. Didactic and clinical teaching must be provided by faculty with documented interests and expertise in the subspecialty involved. Fellowship training, several years of practice (primarily within a subspecialty), and membership and active participation in national organizations related to the subspecialty may signify expertise.**
7. **Residents teaching medical students and junior residents is a valid learning experience. The use of a resident as an instructor of junior residents, however, must not substitute for experienced faculty.**

**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.**

#### **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.**

##### **1. Space and Equipment**

There must be adequate space and equipment for the educational program, including meeting rooms, classrooms with visual and other educational aids, study areas for residents, office space for teaching staff, diagnostic and therapeutic facilities, laboratory facilities, and computer support. The institution must provide appropriate on-call facilities for male and female residents and faculty.

#### **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**

#### **A. Eligibility Criteria**

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

#### **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.**

- 1. Specific criteria evaluated in establishing the number of residents for a program or in considering requests to increase the resident complement include:**
  - a) the program's current accreditation status and duration of review cycle;**
  - b) the most recent accreditation citations, especially any relating to adequacy of clinical experience and/or faculty**

coverage;

- c) documentation of adequate clinical volumes for all residents; and,
- d) the ABA-certification rate of the program's graduates for the most recent five year period.

- 2. Appointment of a minimum of nine residents with, on average, three appointed each year is required. Any proposed increase in the number of residents must receive prior approval by the Review Committee.

#### **C. Resident Transfers**

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

#### **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.**

- 1. The integration of nonphysician personnel into a department with an accredited program in anesthesiology will not influence the accreditation of such a program unless it becomes evident that such personnel interfere with the training of resident physicians. Interference may result from dilution of faculty effort, dilution of the available teaching experience, or downgrading of didactic material. Clinical instruction of residents by nonphysician personnel is inappropriate, as is excessive supervision of such personnel by resident staff.

### **IV. Educational Program**

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

1. **Overall educational goals for the program, which the program must distribute to residents and faculty annually;**
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;**
3. **Regularly scheduled didactic sessions;**
4. **Delineation of resident responsibilities for patient care, progressive responsibility for patient management, and supervision of residents over the continuum of the program; and,**
5. **ACGME Competencies**

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

**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:**

- (1) must have a wide spectrum of disease processes and surgical procedures available within the program to provide them with broad exposure to different types of anesthetic management. The following list represents the minimum clinical experience that should be obtained by each resident in the program. Although the minimum requirements are for the CA-1 through CA-3 years, the majority of these should be accomplished in the CA-1 and CA-2 years.
  - (a) Forty anesthetics for vaginal delivery; evidence of direct involvement in cases involving high-risk obstetrics, as well as a minimum of 20 cesarean sections;
  - (b) Anesthesia for 100 children under the age of 12, including anesthesia for 15 infants less than one year of age, including infants less

than 45 weeks postconceptual age;

- (c) Anesthesia for 20 patients undergoing surgical procedures involving cardiopulmonary bypass;
- (d) Twenty other major vascular cases (including endovascular cases);
- (e) Twenty intrathoracic (thoracotomy, thoracoscopy) noncardiac cases;
- (f) Twenty procedures involving an open cranium, some of which must include intracerebral vascular procedures;
- (g) Fifty epidural anesthetics for patients undergoing surgical procedures, including cesarean sections;
- (h) Ten major trauma cases;
- (i) Fifty subarachnoid blocks performed for patients undergoing surgical procedures;
- (j) Forty peripheral nerve blocks for patients undergoing surgical procedures;
- (k) Twenty-five new patient evaluations for management of patients with acute, chronic, or cancer pain disorders. Residents should have familiarity with the breadth of pain management, including clinical experience with interventional pain procedures;
- (l) Documented involvement in the management of acute postoperative pain, including familiarity with patient-controlled intravenous techniques, neuraxial blockade, and other pain-control modalities;
- (m) Documented involvement in the systematic process of the preoperative management of the patient;
- (n) Significant experience with certain specialized techniques for airway management (such as fiberoptic intubation, double lumen



endotracheal tube placement, and laryngeal mask airway management), central vein catheter placement, pulmonary artery catheter placement, peripheral artery cannulation, transesophageal echocardiography, evoked potentials, and electroencephalography;

- (o) A postanesthesia care experience of two continuous weeks, which must involve direct care of patients in the postanesthesia-care unit and responsibilities for management of pain, hemodynamic changes, and emergencies related to the postanesthesia-care unit. Designated faculty must be readily and consistently available for consultation and teaching; and,
  - (p) Critical care rotation, including active participation in patient care by anesthesia residents in an educational environment in which participation and care extend beyond ventilatory management, and active involvement by anesthesiology faculty experienced in the practice and teaching of critical care. This training must take place in units in which the majority of patients have multi-system disease. The postanesthesia-care unit experience does not satisfy this requirement.
- (2) must maintain a comprehensive anesthesia record for each patient as an ongoing reflection of the drugs administered, the monitoring employed, the techniques used, the physiologic variations observed, the therapy provided as required, and the fluids administered. The patient's medical record should contain evidence of preoperative and postoperative anesthesia assessment.

**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:**

- (1) should have didactic instruction that encompasses clinical anesthesiology and related areas of basic science, as well as pertinent topics from other medical and surgical disciplines. Practice management should be included in the curriculum, and should address issues such as operating room management, types of practice, job acquisition, financial planning, contract negotiations, billing arrangements, and issues of professional liability. The material covered in the didactic program should demonstrate appropriate continuity and sequencing to ensure that residents are ultimately exposed to all subjects at regularly held teaching conferences. The number and types of such conferences may vary among programs, but a conspicuous sense of faculty participation must characterize them. The program director should also seek to enrich the program by providing lectures and contact with faculty from other disciplines and other institutions;
- (2) will have appropriate didactic instruction and sufficient clinical experience in managing problems of the geriatric population; and,
- (3) will have appropriate didactic instruction and sufficient clinical experience in managing the specific needs of the ambulatory surgical patient.

**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:**

- (1) identify strengths, deficiencies, and limits in one's knowledge and expertise;**
- (2) set learning and improvement goals;**
- (3) identify and perform appropriate learning activities;**

- (4) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;**
- (5) incorporate formative evaluation feedback into daily practice;**
- (6) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems;**
- (7) use information technology to optimize learning; and,**
- (8) participate in the education of patients, families, students, residents and other health professionals.**

**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:**

- (1) communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;**
- (2) communicate effectively with physicians, other health professionals, and health related agencies;**
- (3) work effectively as a member or leader of a health care team or other professional group;**
- (4) act in a consultative role to other physicians and health professionals; and,**
- (5) maintain comprehensive, timely, and legible medical records, if applicable.**

**e) Professionalism**

**Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to**

**ethical principles. Residents are expected to demonstrate:**

- (1) compassion, integrity, and respect for others;**
- (2) responsiveness to patient needs that supersedes self-interest;**
- (3) respect for patient privacy and autonomy;**
- (4) accountability to patients, society and the profession; and,**
- (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.**

**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:**

- (1) work effectively in various health care delivery settings and systems relevant to their clinical specialty;**
- (2) coordinate patient care within the health care system relevant to their clinical specialty;**
- (3) incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate;**
- (4) advocate for quality patient care and optimal patient care systems;**
- (5) work in interprofessional teams to enhance patient safety and improve patient care quality; and,**
- (6) participate in identifying system errors and implementing potential systems solutions.**

## **B. Residents' Scholarly Activities**

- 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.**
- 2. Residents should participate in scholarly activity.**
- 3. The sponsoring institution and program should allocate adequate educational resources to facilitate resident involvement in scholarly activities.**

## **V. Evaluation**

### **A. Resident Evaluation**

#### **1. Formative Evaluation**

- 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.**
- b) The program must:**
  - (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;**
  - (2) use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff);**
  - (3) document progressive resident performance improvement appropriate to educational level; and,**
  - (4) provide each resident with documented semiannual evaluation of performance with feedback.**
- c) The evaluations of resident performance must be accessible for review by the resident, in accordance with institutional policy.**

## **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:

- a) document the resident's performance during the final period of education, and
- b) verify that the resident has demonstrated sufficient competence to enter practice without direct supervision.

## **B. Faculty Evaluation**

- 1. At least annually, the program must evaluate faculty performance as it relates to the educational program.
- 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.
- 3. This evaluation must include at least annual written confidential evaluations by the residents.

## **C. Program Evaluation and Improvement**

- 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:
  - a) resident performance;
  - b) faculty development;
  - c) graduate performance, including performance of program graduates on the certification examination; and,
  - d) program quality. Specifically:
    - (1) Residents and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and

- (2) The program must use the results of residents' assessments of the program together with other program evaluation results to improve the program.**
- 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.**
3. As part of the overall evaluation of the program, the Review Committee will take into consideration the information provided by the ABA regarding resident performance on the certifying examinations over the most recent five-year period. The Review Committee will also take into account noticeable improvements or declines during the period considered. Program graduates should take the certifying examination, and at least 70% of the program graduates should become certified.

## **VI. Resident Duty Hours in the Learning and Working Environment**

### **A. Principles**

- 1. The program must be committed to and be responsible for promoting patient safety and resident well-being and to providing a supportive educational environment.**
- 2. The learning objectives of the program must not be compromised by excessive reliance on residents to fulfill service obligations.**
- 3. Didactic and clinical education must have priority in the allotment of residents' time and energy.**
- 4. Duty hour assignments must recognize that faculty and residents collectively have responsibility for the safety and welfare of patients.**

### **B. Supervision of Residents**

**The program must ensure that qualified faculty provide appropriate supervision of residents in patient care activities.**

1. Supervision shall not vary substantially with the time of day or day of the week. In the clinical setting, faculty members should not

direct anesthesia at more than two anesthetizing locations simultaneously.

**C. Fatigue**

**Faculty and residents must be educated to recognize the signs of fatigue and sleep deprivation and must adopt and apply policies to prevent and counteract its potential negative effects on patient care and learning.**

**D. Duty Hours (the terms in this section are defined in the ACGME Glossary and apply to all programs)**

**Duty hours are defined as all clinical and academic activities related to the program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled activities, such as conferences. Duty hours do *not* include reading and preparation time spent away from the duty site.**

- 1. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.**
- 2. Residents must be provided with one day in seven free from all educational and clinical responsibilities, averaged over a four-week period, inclusive of call.**
- 3. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.**
  - a) The Review Committee will not consider requests for a rest period of less than 10 hours.**

**E. On-call Activities**

- 1. In-house call must occur no more frequently than every third night, averaged over a four-week period.**
- 2. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to six additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care.**
  - a) During the six additional hours, residents may not administer anesthesia in the operating room for a new operative case or**



manage new admissions to the ICU. The resident should not manage non-continuity patients in the six hours post-call.

**3. No new patients may be accepted after 24 hours of continuous duty.**

- a) A new patient is defined as any patient for whom the resident has not previously provided care.

**4. At-home call (or pager call)**

- a) **The frequency of at-home call is not subject to the every-third-night, or 24+6 limitation. However at-home call must not be so frequent as to preclude rest and reasonable personal time for each resident.**
- b) **Residents taking at-home call must be provided with one day in seven completely free from all educational and clinical responsibilities, averaged over a four-week period.**
- c) **When residents are called into the hospital from home, the hours residents spend in-house are counted toward the 80-hour limit.**

- 5. On-call activities present the resident with the challenges of providing care outside regular duty hours. Therefore, on-call activities, including those that occur throughout the night, are necessary components of the education of all residents.

**F. Moonlighting**

- 1. **Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program.**
- 2. **Internal moonlighting must be considered part of the 80-hour weekly limit on duty hours.**

**G. Duty Hours Exceptions**

- 1. **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.**
- 2. **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.**

- 3. Prior to submitting the request to the Review Committee, the program director must obtain approval of the institution's GMEC and DIO.**
4. The Review Committee for Anesthesiology will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.

## **VII. Experimentation and Innovation**

**Requests for experimentation or 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 Experimentation or 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.**

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Editorial revisions made April 16, 2003

Duty Hours Requirements/ACGME approved/effective July 1, 2003

Common Requirements Effective: July 1, 2004

Revised Common Program Requirements Effective: July 1, 2007