

# **ACGME Program Requirements for Graduate Medical Education in Interventional Cardiology (Internal Medicine)**

**One-year Common Program Requirements are in BOLD**

Effective: July 1, 2012

## **Introduction**

**Int.A. Residency and fellowship programs are essential dimensions of the transformation of the medical student to the independent practitioner along the continuum of medical education. They are physically, emotionally, and intellectually demanding, and require longitudinally-concentrated effort on the part of the resident or fellow.**

**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 and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, 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 and fellows 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 and fellow’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. Interventional cardiology is the practice of techniques that improve coronary circulation, alleviate valvular stenosis and regurgitation, and treat other structural heart disease. Interventional cardiology fellowships provide advanced cardiology education to allow a fellow to acquire competency in the subspecialty with sufficient expertise to act as a provider of interventional procedures and as an independent consultant.**

**Int.C. The educational program in interventional cardiology must be 12 months in length.**

## **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 fellow 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. An interventional cardiology fellowship program must function as an integral part of an ACGME-accredited fellowship program in cardiovascular disease.
- I.A.2. The sponsoring institution must provide the program director with adequate support for the administrative activities of the fellowship.
  - I.A.2.a) The program director must not be required to generate clinical or other income to provide this administrative support.
  - I.A.2.b) It is suggested this support be 25-50% of the program director's salary, or protected time, depending on the size of the program.
- I.A.3. The sponsoring institution and participating sites must:
  - I.A.3.a) demonstrate that there is a culture of continuous quality improvement in the areas of patient care, patient safety, and education;
  - I.A.3.b) demonstrate a commitment to quality patient-centered care and safety, education, and scholarship sufficient to support the fellowship; and,
  - I.A.3.c) share appropriate inpatient and outpatient faculty performance data with the program director.

**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 fellows;**
  - I.B.1.b) specify their responsibilities for teaching, supervision, and formal evaluation of fellows, 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 fellow 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 fellows, of one month full time equivalent (FTE) or more through the Accreditation Council for Graduate Medical Education (ACGME) Accreditation Data System (ADS).**

**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 GMEC 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. Qualifications of the program director must include:**

**II.A.2.a) requisite specialty expertise and documented educational and administrative experience acceptable to the Review Committee;**

**II.A.2.a).(1) The program director must have at least five years of participation as an active faculty member in an ACGME-accredited internal medicine cardiovascular disease fellowship or interventional cardiology fellowship.**

**II.A.2.b) current certification in the subspecialty by the American Board of Internal Medicine (ABIM), or subspecialty qualifications that are acceptable to the Review Committee; and,**

**II.A.2.b).(1) The Review Committee only accepts current ABIM certification in interventional cardiology.**

**II.A.2.c) current medical licensure and appropriate medical staff appointment.**

**II.A.3. The program director must administer and maintain an educational environment conducive to educating the fellows in each of the ACGME competency areas. The program director must:**

**II.A.3.a) prepare and submit all information required and requested by the ACGME;**

**II.A.3.b) be familiar with and oversee compliance with ACGME and Review Committee policies and procedures as outlined in the ACGME Manual of Policies and Procedures;**

**II.A.3.c) obtain review and approval of the sponsoring institution's**

**GMEC/DIO before submitting to the ACGME information or requests for the following:**

- II.A.3.c).(1)** all applications for ACGME accreditation of new programs;
- II.A.3.c).(2)** changes in fellow complement;
- II.A.3.c).(3)** major changes in program structure or length of training;
- II.A.3.c).(4)** progress reports requested by the Review Committee;
- II.A.3.c).(5)** responses to all proposed adverse actions;
- II.A.3.c).(6)** requests for increases or any change to fellow duty hours;
- II.A.3.c).(7)** voluntary withdrawals of ACGME-accredited programs;
- II.A.3.c).(8)** requests for appeal of an adverse action; and,
- II.A.3.c).(9)** appeal presentations to a Board of Appeal or the ACGME.
- II.A.3.d)** 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.3.d).(1)** program citations; and/or
  - II.A.3.d).(2)** requests for changes in the program that would have significant impact, including financial, on the program or institution.
- II.A.3.e)** ensure that fellows' service responsibilities are limited to patients for whom the teaching service has diagnostic and therapeutic responsibility.
- II.A.3.f)** dedicate an average of 20 hours per week of his or her professional effort to the fellowship, including time for administration of the program;
- II.A.3.g)** have a reporting relationship with the program director of the cardiovascular disease program to ensure compliance with ACGME accreditation standards; and,
- II.A.3.h)** be available at the primary clinical site.

**II.B. Faculty**

- II.B.1.** There must be a sufficient number of faculty with documented qualifications to instruct and supervise all fellows.
- II.B.2.** The faculty must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities and demonstrate a strong interest in the education of fellows.
- II.B.3.** The physician faculty must have current certification in the subspecialty by the American Board of Internal Medicine or possess qualifications acceptable to the Review Committee.
- II.B.4.** The physician faculty must possess current medical licensure and appropriate medical staff appointment.
- II.B.5.** The physician faculty must meet professional standards of ethical behavior.
- II.B.6.** The faculty must establish and maintain an environment of inquiry and scholarship with an active research component.
- II.B.6.a)** The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences.
- II.B.6.b)** Some members of the faculty should also demonstrate scholarship by one or more of the following:
- II.B.6.b).(1)** peer-reviewed funding;
- II.B.6.b).(2)** publication of original research or review articles in peer-reviewed journals or chapters in textbooks;
- II.B.6.b).(3)** publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings; or,
- II.B.6.b).(4)** participation in national committees or educational organizations.
- II.B.6.c)** Faculty should encourage and support fellows in scholarly activities.
- II.B.7.** Each faculty member involved in supervising fellows in the performance of interventional procedures must perform a minimum of 75 interventions per year, with the majority at the primary clinical site.
- II.B.8.** Key Clinical Faculty
- In addition to the program director, each program must have at least one Key Clinical Faculty (KCF). KCF are attending physicians who dedicate, on average, 10 hours per week throughout the year to the program. For

programs with more than two fellows, there must be at least one KCF for every 1.5 fellows.

II.B.8.a) Key Clinical Faculty Qualifications

II.B.8.a).(1) KCF must be active clinicians with knowledge of, experience with, and commitment to the interventional cardiology as a discipline.

II.B.8.a).(2) KCF must have current ABIM certification in interventional cardiology.

II.B.8.b) Key Clinical Faculty Responsibilities

II.B.8.b).(1) In addition to the responsibilities of all individual faculty members, the KCF and the program director are responsible for the planning, implementation, monitoring, and evaluation of the fellows' clinical and research education.

II.B.8.b).(2) At least 50% of the KCF must demonstrate evidence of productivity in scholarship, specifically, peer-reviewed funding; publication of original research, review articles, editorials, or case reports in peer-reviewed journals; or chapters in textbooks.

II.B.9. Clinical faculty members should participate in faculty development programs designed to enhance the effectiveness of their teaching.

II.B.10. Access to faculty with expertise in congenital heart disease in adults, hematology, pharmacology, radiation safety, and research is suggested.

**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.C.1. There must be services available from other health care professionals, including dietitians, language interpreters, nurses, occupational therapists, physical therapists, and social workers.

II.C.2. There must be appropriate and timely consultation from other specialties.

**II.D. Resources**

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

II.D.1. Space and Equipment

There must be space and equipment for the program, including meeting rooms, examination rooms, computers, visual and other educational aids, and work/study space.

II.D.2. Facilities

II.D.2.a) Inpatient and outpatient systems must be in place to prevent fellows from performing routine clerical functions, including scheduling tests and appointments, and retrieving records and letters.

II.D.2.b) The sponsoring institution must provide the broad range of facilities and clinical support services required to provide comprehensive care of adult patients.

II.D.2.c) Fellows must have access to a lounge facility during assigned duty hours.

II.D.2.d) When fellows are in the hospital, assigned night duty, or called in from home, they must be provided with a secure space for their belongings.

II.D.3. Laboratory Services

Each of the following must be present at the primary clinical site:

II.D.3.a) cardiac catheterization laboratories, each equipped with cardiac fluoroscopic equipment, digital imaging, recording devices, a full complement of interventional devices, and resuscitative equipment; and,

II.D.3.a).(1) The primary laboratory must perform a minimum of 400 interventional procedures per year, and each secondary laboratory must perform a minimum of 200 interventional procedures per year.

II.D.3.b) cardiac radionuclide laboratories.

II.D.4. Other Support Services

The following must be present at the primary clinical site:

II.D.4.a) an active cardiac surgery program;

II.D.4.b) a cardiac surgery intensive care unit; and,

II.D.4.c) a cardiac intensive care unit.

II.D.5. Medical Records

Access to an electronic health record should be provided. In the absence of an existing electronic health record, institutions must demonstrate institutional commitment to its development and progress toward its implementation.

II.D.6. Patient Population

II.D.6.a) The patient population must have a variety of clinical problems and stages of diseases.

II.D.6.b) There must be patients of each gender, with a broad age range, including geriatric patients.

II.D.6.c) A sufficient number of patients must be available to enable each fellow to achieve the required educational outcomes.

**II.E. Medical Information Access**

**Fellows 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. Fellow Appointments**

**III.A. Eligibility Criteria**

**Each fellow must successfully complete an ACGME-accredited specialty program and/or meet other eligibility criteria as specified by the Review Committee. The program must document that each fellow has met the eligibility criteria.**

III.A.1. Prior to appointment in the fellowship, fellows should have completed a three-year ACGME-accredited cardiovascular disease program.

III.A.2. Fellows from non-ACGME-accredited programs must have at least three years of cardiovascular disease education prior to starting the fellowship.

III.A.3. The program director must inform applicants from non-ACGME-accredited programs, prior to appointment and in writing, of the ABIM policies and procedures that will affect their eligibility for ABIM certification.

III.A.4. When averaged over any five-year period, a minimum of 75% of fellows in each program must be graduates of an ACGME-accredited cardiovascular disease program.

**III.B. Number of Fellows**

**The program director may not appoint more fellows 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 fellows appointed to the program.**

#### **IV. Educational Program**

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

**IV.A.1. Skills and competencies the fellow will be able to demonstrate at the conclusion of the program. The program must distribute these skills and competencies to fellow and faculty annually, in either written or electronic form. These skills and competencies should be reviewed by the fellow at the start of each rotation.**

**IV.A.2. ACGME Competencies**

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

**IV.A.2.a) Patient Care**

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

IV.A.2.a).(1) must demonstrate competence in the practice of health promotion, disease prevention, diagnosis, care, and treatment of patients of each gender, from adolescence to old age, during health and all stages of illness;

IV.A.2.a).(2) must demonstrate competence in the prevention, evaluation, and management of both inpatients and outpatients with:

IV.A.2.a).(2).(a) acute ischemic syndromes;

IV.A.2.a).(2).(b) bleeding disorders or complications associated with percutaneous intervention or drugs, which may include :

IV.A.2.a).(2).(b).(i) bleeding after thrombolytic usage;

IV.A.2.a).(2).(b).(ii) direct or indirect thrombin inhibitor usage;

IV.A.2.a).(2).(b).(iii) glycoprotein IIb/IIIa inhibitor usage; and,

IV.A.2.a).(2).(b).(iv) thienopyridine or other antiplatelet usage.

IV.A.2.a).(2).(c) chronic ischemic heart disease; and,

IV.A.2.a).(2).(d) valvular and structural heart disease.

IV.A.2.a).(3) must demonstrate competence in:

- IV.A.2.a).(3).(a) care of patients before and after interventional procedures;
- IV.A.2.a).(3).(b) care of patients in the cardiac care unit, emergency department, or other intensive care settings;
- IV.A.2.a).(3).(c) outpatient follow-up of patients treated with drugs, interventions, devices, or surgery;
- IV.A.2.a).(3).(d) use of antiarrhythmic drugs;
- IV.A.2.a).(3).(e) use and limitations of intra-aortic balloon counterpulsation (IABP) and other hemodynamic support devices (as available);
- IV.A.2.a).(3).(f) use of thrombolytic and antithrombotic, antiplatelet, and antithrombin agents; and,
- IV.A.2.a).(3).(g) use of vasoactive agents for epicardial and microvascular spasm.
- IV.A.2.a).(4) must demonstrate competence in the performance of:
  - IV.A.2.a).(4).(a) coronary arteriograms;
  - IV.A.2.a).(4).(b) coronary interventions, (each fellow must perform a minimum of 250) including:
    - IV.A.2.a).(4).(b).(i) application and usage of balloon angioplasty, stents, and other commonly used interventional devices; and,
    - IV.A.2.a).(4).(b).(ii) femoral and brachial/radial cannulation of normal and abnormally located coronary ostia.
  - IV.A.2.a).(4).(c) Doppler flow, intracoronary pressure measurement and monitoring, and coronary flow reserve;
  - IV.A.2.a).(4).(d) hemodynamic measurements;
  - IV.A.2.a).(4).(e) intravascular ultrasound; and,
  - IV.A.2.a).(4).(f) ventriculography and aortography.
- IV.A.2.a).(5) must demonstrate competence in the management of mechanical complications of percutaneous intervention, which may include:
  - IV.A.2.a).(5).(a) cardiac tamponade, including pericardiocentesis;

- IV.A.2.a).(5).(b) cardiogenic shock;
- IV.A.2.a).(5).(c) coronary dissection;
- IV.A.2.a).(5).(d) perforation;
- IV.A.2.a).(5).(e) slow reflow;
- IV.A.2.a).(5).(f) spasm; and,
- IV.A.2.a).(5).(g) thrombosis.
- IV.A.2.a).(6) must demonstrate competence in the management of patients with vascular assessment complications, including management of closure device complications and pseudoaneurysm; and,
- IV.A.2.a).(7) must demonstrate competence in the management of patients with major and minor bleeding complications, including retroperitoneal bleeding.

#### **IV.A.2.b)**

#### **Medical Knowledge**

**Fellows 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. Fellows:**

- IV.A.2.b).(1) must demonstrate knowledge of the scientific method of problem solving and evidence-based decision making;
- IV.A.2.b).(2) must demonstrate a knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of results of those diagnostic and therapeutic procedures integral to the discipline, including the appropriate indication for and use of screening tests/procedures;
- IV.A.2.b).(3) must demonstrate knowledge of:
  - IV.A.2.b).(3).(a) detailed coronary anatomy;
  - IV.A.2.b).(3).(b) clinical utility and limitations of the treatment of valvular and structural heart disease;
  - IV.A.2.b).(3).(c) pathophysiology of restenosis;
  - IV.A.2.b).(3).(d) physiology of coronary flow and detection of flow-limiting conditions;

- IV.A.2.b).(3).(e) radiation physics, biology, and safety related to the use of x-ray imaging equipment;
- IV.A.2.b).(3).(f) strengths and limitations of both noninvasive and invasive coronary evaluation during the recovery phase after acute myocardial infarction;
- IV.A.2.b).(3).(g) strengths and limitations, both short- and long-term, of differing percutaneous approaches for a wide variety of anatomic situations related to cardiovascular disease;
- IV.A.2.b).(3).(h) strengths and weaknesses of mechanical versus lytic approaches for patients with acute myocardial infarction;
- IV.A.2.b).(3).(i) the assessment of plaque composition and response to intervention;
- IV.A.2.b).(3).(j) the clinical importance of complete versus incomplete revascularization in a wide variety of clinical and anatomic situations;
- IV.A.2.b).(3).(k) the role of emergency coronary bypass surgery in the management of complications of percutaneous intervention;
- IV.A.2.b).(3).(l) the role and limitations of established and emerging therapies for treatment of restenosis;
- IV.A.2.b).(3).(m) the role of platelets and the clotting cascade in response to vascular injury;
- IV.A.2.b).(3).(n) the role of randomized clinical trials and registry experiences in clinical decision making; and,
- IV.A.2.b).(3).(o) the use of pharmacologic agents appropriate in the post-intervention management of patients.

**IV.A.2.c)**

**Practice-based Learning and Improvement**

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

- IV.A.2.c).(1) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; and,**
- IV.A.2.c).(2) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.**

**IV.A.2.d)**

**Interpersonal and Communication Skills**

**Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.**

IV.A.2.d).(1)

Fellows must demonstrate competence in providing consultation and obtaining informed consent.

**IV.A.2.e)**

**Professionalism**

**Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.**

Fellows must demonstrate:

IV.A.2.e).(1)

high standards of ethical behavior, including maintaining appropriate professional boundaries and relationships with other physicians and other health care team members, and avoiding conflicts of interest; and,

IV.A.2.e).(2)

a commitment to lifelong learning, and an attitude of caring that is derived from humanistic and professional values.

**IV.A.2.f)**

**Systems-based Practice**

**Fellows 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.**

IV.A.3.

Curriculum Organization and Fellow Experiences

IV.A.3.a)

All 12 months must include clinical experiences and appropriate protected time for research.

IV.A.3.b)

Fellows must participate in training using simulation.

IV.A.3.c)

The core curriculum must include a didactic program based upon the core knowledge content in the subspecialty area.

IV.A.3.c).(1)

The program must afford each fellow an opportunity to review topics covered in conferences that he or she was unable to attend.

IV.A.3.c).(2)

Fellows must participate in clinical case conferences, journal clubs, research conferences, and morbidity and mortality or quality improvement conferences.

- IV.A.3.c).(3) All core conferences must have at least one faculty member preset, and must be scheduled as to ensure peer-peer and peer-faculty interaction.
- IV.A.3.d) Fellows must be instructed in practice management relevant to interventional cardiology.
- IV.A.3.e) Fellows must attend an outpatient clinic to provide follow-up care for patients.
- IV.A.3.f) Procedures and Technical Skills
  - IV.A.3.f).(1) Direct supervision of procedures performed by each fellow must occur until proficiency has been acquired and documented by the program director.
  - IV.A.3.f).(2) Faculty members must teach and supervise the fellows in the performance and interpretation of procedures, which must be documented in each fellow's record, including indications, outcomes, diagnoses, and supervisor(s).
  - IV.A.3.f).(3) All fellows must:
    - IV.A.3.f).(3).(a) participate in pre-procedural planning, including the indications for the procedure, and the selection of the appropriate procedure or instruments;
    - IV.A.3.f).(3).(b) perform the critical technical manipulations of the procedure; and,
    - IV.A.3.f).(3).(c) demonstrate substantial involvement in post-procedure care.

## **IV.B. Fellows' Scholarly Activities**

- IV.B.1. Each program must provide an opportunity for fellows to participate in research or other scholarly activities, including:
  - IV.B.1.a) a research project (with faculty mentorship); or,
  - IV.B.1.b) participation with the faculty in the initiation and conduct of clinical trials within the department; or,
  - IV.B.1.c) participation in quality assurance/quality improvement or process improvement projects.

## **V. Evaluation**

### **V.A. Fellow Evaluation**

- V.A.1. Formative Evaluation**
- V.A.1.a) The faculty must evaluate fellow performance in a timely manner.**
- V.A.1.a).(1) The faculty must discuss evaluations with each fellow at least every three months.
- V.A.1.a).(2) Assessment of procedural competence should include a formal evaluation process and not be based solely on a minimum number of procedures performed.
- 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).(1).(a) Patient Care
- The program must assess the fellow in data gathering, clinical reasoning, patient management, and procedures in both the inpatient and outpatient setting. This assessment must involve direct observation of fellow-patient encounters.
- Each program must define criteria for competence for all required and elective procedures.
- V.A.1.b).(1).(a).(i) The record of evaluation must include the fellow's logbook or an equivalent method to demonstrate that each fellow has achieved competence in the performance of required procedures.
- V.A.1.b).(1).(b) Medical Knowledge
- The program must use an objective formative assessment method. The same formative assessment method must be administered at least twice during the program.
- V.A.1.b).(1).(c) Practice-based Learning and Improvement
- The program must use performance data to assess the fellow in:
- V.A.1.b).(1).(c).(i) application of evidence to patient care;

V.A.1.b).(1).(c).(ii)	practice improvement;
V.A.1.b).(1).(c).(iii)	teaching skills involving peers and patients; and,
V.A.1.b).(1).(c).(iv)	scholarship.
V.A.1.b).(1).(d)	Interpersonal and Communication Skills  The program must use both direct observation and multi-source evaluation, including patients, peers and non-physician team members, to assess fellow performance in:
V.A.1.b).(1).(d).(i)	communication with patient and family;
V.A.1.b).(1).(d).(ii)	teamwork;
V.A.1.b).(1).(d).(iii)	communication with peers, including transitions in care; and,
V.A.1.b).(1).(d).(iv)	record keeping.
V.A.1.b).(1).(e)	Professionalism  The program must use multi-source evaluation, including patients, peers, and non-physician team members, to assess each fellow:
V.A.1.b).(1).(e).(i)	honesty and integrity;
V.A.1.b).(1).(e).(ii)	ability to meet professional responsibilities;
V.A.1.b).(1).(e).(iii)	ability to maintain appropriate professional relationships with patients and colleagues; and,
V.A.1.b).(1).(e).(iv)	commitment to self-improvement.
V.A.1.b).(1).(f)	Systems-based Practice  The program must use multi-source evaluation, including peers, and non-physician team members, to assess each fellow's:
V.A.1.b).(1).(f).(i)	ability to provide care coordination, including transition of care;
V.A.1.b).(1).(f).(ii)	ability to work in interdisciplinary teams;
V.A.1.b).(1).(f).(iii)	advocacy for quality of care; and,

- V.A.1.b).(1).(f).(iv) ability to identify system problems and participate in improvement activities.
- V.A.1.b).(2) use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff); and,
- V.A.1.b).(3) provide each fellow with documented semiannual evaluation of performance with feedback.
- V.A.1.c) The evaluation of fellow performance must be accessible for review by the fellows, in accordance with institutional policy.
- V.A.2. **Summative Evaluation**
- The program director must provide a summative evaluation for each fellow upon completion of the program. This evaluation must become part of the fellow's permanent record maintained by the institution, and must be accessible for review by the fellow in accordance with institutional policy. This evaluation must:
- V.A.2.a) document the fellow's performance during their education; and,
- V.A.2.b) verify that the fellow 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. These evaluations must be confidential, and must be reviewed with the faculty members annually.
- V.B.3. Fellows must have the opportunity to provide confidential written evaluations of each supervising faculty member at the end of a rotation.
- V.B.4. These evaluations must be reviewed with each faculty member annually.
- 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) fellow performance;

- V.C.1.b) faculty development; and,**
- V.C.1.c) graduate performance, including performance of program graduates on the certification examination.
- V.C.1.c).(1) At least 80% of the program's graduating fellows from the most recently defined five year period who are eligible should take the ABIM certifying examination.
- V.C.1.c).(2) At least 80% of a program's graduates taking the ABIM certifying examination for the first time during the most recently defined five year period should pass.
- V.C.1.c).(3) At least 80% of the entering fellows should have completed the program when averaged over a five-year period.
- 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. Representative program personnel, at a minimum to include the program director, representative faculty, and one fellow, must review program goals and objectives, and the effectiveness with which they are achieved.

## **VI. Fellow 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 fellows 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 fellow well-being in a supportive educational environment.**
- VI.A.3. The program director must ensure that fellows 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 fellows to fulfill**

**non-physician service obligations.**

- VI.A.5. The program director and sponsoring institution must ensure a culture of professionalism that supports patient safety and personal responsibility. Fellows 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 fellows 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 fellows 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 fellows 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 fellows to recognize the signs of fatigue and sleep deprivation;**
- VI.C.1.b) educate all faculty members and fellows 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 fellow 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 fellows who may be too fatigued to safely return home.**

**VI.D. Supervision of Fellows**

**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.**

**VI.D.1.a) This information should be available to fellows, faculty members, and patients.**

**VI.D.1.b) Fellows 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 fellows 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 fellow. Other portions of care provided by the fellow can be adequately supervised by the immediate availability of the supervising faculty member or fellow physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of fellow-delivered care with feedback as to the appropriateness of that care.**

**VI.D.3. Levels of Supervision**

To ensure oversight of fellow 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 fellow 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 fellow must be assigned by the program director and faculty members.**
  - VI.D.4.a) **The program director must evaluate each fellow’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 fellows, based on the needs of the patient and the skills of the fellows.**
  - VI.D.4.c) **Fellows should serve in a supervisory role of residents or junior fellows in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual fellow.**
- VI.D.5. **Programs must set guidelines for circumstances and events in which fellows 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 fellow 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.6.** Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each fellow and delegate to him/her the appropriate level of patient care authority and responsibility.

**VI.E.** Clinical Responsibilities

The clinical responsibilities for each fellow must be based on PGY-level, patient safety, fellow education, severity and complexity of patient illness/condition and available support services.

**VI.F.** Teamwork

Fellows 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.** Fellow 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.

The Review Committee for Internal Medicine will not consider requests for exceptions to the 80-hour limit to the fellows' work week.

**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 fellow to achieve the goals and objectives of the educational program.

- VI.G.2.b)** Time spent by fellows 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.3.** **Mandatory Time Free of Duty**
- Fellows 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**
- Duty periods of fellows may be scheduled to a maximum of 24 hours of continuous duty in the hospital. Programs must encourage fellows 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.a)** It is essential for patient safety and fellow education that effective transitions in care occur. Fellows 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)** Fellows must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.
- VI.G.4.c)** In unusual circumstances, fellows, 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.c).(1)** Under those circumstances, the fellow must:
- VI.G.4.c).(1).(a)** appropriately hand over the care of all other patients to the team responsible for their continuing care; and,
- VI.G.4.c).(1).(b)** 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.c).(2)** The program director must review each submission of additional service, and track both individual fellow and program-wide episodes of additional duty.

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

**VI.G.5.a) Fellows must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.**

Internal medicine subspecialty fellows are considered to be in the final years of education.

**VI.G.5.a).(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 fellows have eight hours free of duty between scheduled duty periods, there may be circumstances when these fellows 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.a).(1).(a) Circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by fellows must be monitored by the program director.**

VI.G.5.a).(1).(b) In unusual circumstances, fellows may remain beyond their scheduled period of duty or return after their scheduled period of duty to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity of care for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of the patient or family. Such episodes should be rare, must be of the fellows' own initiative, and need not initiate a new 'off-duty period' nor require a change in the scheduled 'off-duty period.'

VI.G.5.a).(1).(c) Under such circumstances, the fellow must appropriately hand over care of all other patients to the team responsible for their continuing care, and document the reasons for remaining or returning to care for the patient in question and submit that documentation to the program director.

VI.G.5.a).(1).(d) The program director must review each submission of additional service and track both individual fellows' and program-wide episodes of additional duty.

**VI.G.6. Maximum Frequency of In-House Night Float**

**Fellows must not be scheduled for more than six consecutive nights of night float.**

**VI.G.7. Maximum In-House On-Call Frequency**

**Fellows must be scheduled for in-house call no more frequently than every-third-night (when averaged over a four-week period).**

VI.A.1.a) Internal Medicine fellowships must not average in-house call over a four-week period.

**VI.G.8. At-Home Call**

**VI.G.8.a) Time spent in the hospital by fellows 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 fellow.**

**VI.G.8.b) Fellows 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”.**

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