

PROGRAM REQUIREMENTS for GRADUATE MEDICAL EDUCATION in ANESTHESIOLOGY

I. Introduction

A. Definition and Scope of the Specialty

The Residency Review Committee (RRC) representing the medical specialty of anesthesiology exists in order to foster and maintain the highest standards of training and educational facilities in anesthesiology which the RRC defines as the practice of medicine dealing with but not limited to the following:

1. Assessment of, consultation for, and preparation of patients for anesthesia
2. Relief and prevention of pain during and following surgical, obstetric, therapeutic and diagnostic procedures
3. Monitoring and maintenance of normal physiology during the perioperative period
4. Management of 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. Conduct of clinical and basic science research
9. Supervision, teaching and evaluation of performance of personnel, both medical and paramedical, involved in perioperative care

B. Duration and scope of education

1. Length of Program

A minimum of 4 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 RRC for Anesthesiology and the Accreditation Council for Graduate Medical Education (ACGME) accredit programs only in those institutions that possess the educational resources to provide 3 years of clinical anesthesia training. The capability to provide the Clinical Base Year within the same institution is desirable but not required for accreditation.

2. Program Design

The continuum of education in anesthesiology consists of 4 years of training: the Clinical Base Year (CBY) and 36 months of clinical anesthesia training (CA-1, CA-2, and CA-3 years).

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a. Clinical Base Year

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. It is strongly recommended that the Clinical Base Year be completed before the resident starts the CA-2 year; however, it must be completed before the resident begins the CA-3 year.

The Clinical Base Year must include at least 10 months of clinical rotations of which at most 1 month may involve training in anesthesiology. Clinical Base Year 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. At most, 2 months 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 RRC 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 the Clinical Base Year.

b. Clinical Anesthesia Training: CA-1 through CA-3 Years

These 3 years, usually the second through the fourth years of graduate medical education, consist of training in basic and advanced anesthesia. They must encompass all aspects of perioperative care to include 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 learn to plan and to administer anesthesia care for patients with more severe and complicated diseases as well as patients who undergo more complex surgical procedures. The training must culminate in sufficiently independent responsibility for clinical decision making and patient care so that the program is assured that the graduating resident exhibits sound clinical judgment in a wide variety of clinical situations and can function as a consultant in anesthesiology.

1) CA 1 and 2 years

Experience in basic anesthesia training must

96 emphasize the fundamental aspects of anesthesia. At
97 least 12 months of the CA-1 and CA-2 years should be
98 spent in basic anesthesia training, with the majority of
99 this time occurring during the CA-1 year. Residents
100 should receive training in the complex technology and
101 equipment associated with the practice of
102 anesthesiology. There must be documented evidence
103 of direct faculty involvement with tutorials, lectures, and
104 clinical supervision of beginning residents.

106 Anesthesiology encompasses the theoretical
107 background and clinical practice of a variety of
108 subspecialty disciplines. Exposure to these should
109 occupy a minimum of 7 months in the CA-1 and CA-2
110 years. There must be identifiable 1-month rotations in
111 obstetric anesthesia, pediatric anesthesia,
112 neuroanesthesia, and cardiothoracic anesthesia.
113 Experiences in perioperative care must include a 2-
114 month rotation in critical care, a 1-month rotation in pain
115 management, and 2 contiguous weeks in the
116 postanesthesia care unit.

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

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126 2) CA-3 year

128 The program must provide 12 months' experience in
129 advanced and complex anesthesia assignments in the
130 CA-3 year. In addition, the resident must complete an
131 academic assignment. A curriculum for the CA-3 year,
132 as well as the specific program for each resident, must
133 be on file in the department.

134 Clinical assignments in the CA-3 year must include
135 difficult or complex anesthesia procedures and the care
136 of seriously ill patients. Subspecialty rotations are
137 encouraged, but none may be longer than six months.

138 A curriculum specific to each of the subspecialty
139 programs offered must be on file in the department.
140 This curriculum must be distinct from the CA-1 and CA-
141 2 years subspecialty curricula and must reflect
142 increased responsibility and learning opportunity.

143 These assignments must not compromise the learning
144 opportunities for the CA-1 and CA-2 residents.

145 All CA-3 residents must be certified as providers for

146 advanced cardiac life support (ACLS).
147 Academic projects may include special training
148 assignments, grand rounds presentations, preparation
149 and publication of review articles, book chapters,
150 manuals for teaching or clinical practice, or similar
151 academic activities. A faculty supervisor must be in
152 charge of each project. The academic project may, at
153 the program director's discretion, occur prior to the CA-
154 3 year.

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156 c. Research Track

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158 The program must have the resources to provide a Research
159 Track of up to 6 months devoted to laboratory or clinical
160 investigation. For the residents who elect this track, it is
161 expected that the results of the investigations will be suitable
162 for presentation at a local, regional, or national scientific
163 meeting. The Research Track generally occurs in the CA-3
164 year, but at the program director's discretion, it may be taken
165 earlier. A curriculum describing the goals and objectives of
166 this track must be on file in the department.

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168 C. Goals and Objectives

169
170 An accredited program in anesthesiology must provide education, training,
171 and experience in an atmosphere of mutual respect between instructor and
172 resident so that residents will be stimulated and prepared to apply acquired
173 knowledge and talents independently. The program must provide an
174 environment that promotes the acquisition of the knowledge, skills, clinical
175 judgment, and attitudes essential to the practice of anesthesiology.

176
177 In addition to clinical skills, the program should emphasize interpersonal
178 skills, effective communication, and professionalism. The residency
179 program must work toward ensuring that its residents, by the time they
180 graduate, assume responsibility and act responsibly and with integrity;
181 demonstrate a commitment to excellence and ethical principles of clinical
182 care, including confidentiality of patient information, informed consent, and
183 business practices; demonstrate respect and regard for the needs of
184 patients and society that supersedes self-interest; and work effectively as a
185 member of a health-care team or other professional group. Further,
186 residents are expected to create and sustain a therapeutic relationship with
187 patients; engage in active listening, provide information using appropriate
188 language, ask clear questions; and provide an opportunity for input and
189 questions, and demonstrate sensitivity and responsiveness to cultural
190 differences, including awareness of their own and their patients' cultural
191 perspectives.

192
193 These objectives can be achieved only when the program leadership, faculty,
194 supporting staff, and administration demonstrate a commitment to the
195 educational program and provide appropriate resources and facilities.

196 Service commitments must not compromise the achievement of educational
197 goals and objectives.

198 **II. Institutional Support**

200 **A. Sponsoring institution**

201 **1. One sponsoring institution must assume the ultimate**
202 **responsibility for the program as described in the Institutional**
203 **Requirements, and this responsibility extends to resident**
204 **assignments at all participating institutions.**

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

209 **B. Participating institutions**

210 **1. Assignments to participating institutions must be based on a**
211 **clear educational rationale, must have clearly stated learning**
212 **objectives and activities, and should provide resources not**
213 **otherwise available to the program.**

214 **2. Assignments at participating institutions must be of sufficient**
215 **length to ensure a quality educational experience and should**
216 **provide sufficient opportunity for continuity of care. All**
217 **participating institutions must demonstrate the ability to**
218 **promote the program goals and educational and peer activities.**
219 **Exceptions must be justified and prior-approved.**

220 **3. Program letters of agreement must be developed for each**
221 **participating institution that provides an educational**
222 **experience for a resident that is one month in duration or**
223 **longer. In instances where two or more participating**
224 **institutions in the program function as a single unit under the**
225 **authority of the program director, letters are not necessary.**
226 **The agreements should**

227 **a. identify the faculty who will assume the educational and**
228 **supervisory responsibility for residents and specify the**
229 **faculty responsibilities for teaching, supervision, and**
230 **formal evaluation of resident performance per Sections**
231 **IV.D. and VI.A of the Program Requirements;**

232 **b. outline the educational goals and objectives to be**
233 **attained by the resident during the assignment;**

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244 c. specify the period of resident assignment;

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246 d. establish the policies that will govern resident education
247 during the assignment.

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249 C. A participating institution may be either integrated or affiliated with the
250 parent institution:

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252 1. An *INTEGRATED INSTITUTION* must formally acknowledge the
253 authority of the core program director over the educational program in
254 that hospital, including the appointments of all faculty and all
255 residents. Integrated institutions should be in close geographic
256 proximity to the parent institution to allow all residents to attend joint
257 conferences. If an institution is not in geographic proximity and joint
258 conferences cannot be held, an equivalent educational program in the
259 integrated institution must be fully established and documented.
260 Rotations to integrated institutions are not limited in duration.
261 However, it is expected that the majority of the program will be
262 provided in the parent institution. Prior approval of the RRC must be
263 obtained for participation of an institution on an integrated basis,
264 regardless of the duration of the rotations.

265

266 2. An *AFFILIATED INSTITUTION* is one that is related to the core
267 program for the purpose of providing limited rotations that
268 complement the experience available in the parent institution.
269 Assignments at affiliated institutions must be made for educational
270 purposes and not to fulfill service needs. Rotations to affiliated
271 institutions may be no more than a maximum of 12 months during the
272 3 years of clinical anesthesia. Prior approval of the RRC must be
273 obtained if the duration of a rotation at an affiliated institution will
274 exceed 6 months.

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276 D. Facilities and Resources

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278 1. Space and Equipment

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

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287 2. Library Resources

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289 There must be a department library. This may be complemented, but
290 not replaced, by private faculty book collections and hospital and/or
291 institutional libraries. Journals, reference books, and other texts must
292 be readily available to residents and faculty during nights and
293 weekends. Residents must also have ready access to a major

294 medical library, either at the institution where the residents are
295 located or through arrangements with convenient nearby institutions.
296 Library services must include electronic retrieval of information from
297 medical databases. There must be access to an on-site library or to a
298 collection of appropriate texts and journals in each institution
299 participating in a residency program. On-site libraries and/or
300 collections of texts and journals and electronic databases must be
301 readily available during nights and weekends.

303 **III. Resident Appointment**

304 **A. Eligibility Criteria**

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

308 **B. Number of Residents**

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310 **1. The RRC will approve the number of residents based on
311 criteria that include the adequacy of resources for resident
312 education such as variety and volume of patients and related
313 clinical material available for education, faculty to resident
314 ratio, institutional funding, and the quality of faculty teaching.**
315 Specific criteria evaluated in establishing the number of residents for
316 a program or in considering requests to increase the resident
317 complement include a) the program's current accreditation status and
318 duration of review cycle, b) the most recent accreditation citations,
319 especially any relating to adequacy of clinical experience and/or
320 faculty coverage, c) documentation of adequate clinical volumes for
321 all residents, and d) the ABA certification rate of the program's
322 graduates for the most recent 5-year period.
- 323
324 **2. Appointment of a minimum of nine residents with, on average, three
325 appointed each year is required. Any proposed increase in the
326 number of residents must receive prior approval by the RRC.**
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328 **3. Accreditation may be withdrawn from a program that has been
329 without a resident for 2 years. Reactivation of a program following
330 withdrawal of accreditation will require a new application.**

331 **C. Resident Transfer**

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333 **To determine the appropriate level of education for a resident who is
334 transferring from another residency program, the program director
335 must receive written verification of the previous educational
336 experiences and a statement regarding the performance evaluation
337 of the transferring resident, including an assessment of competence
338 in the six areas described in section V.B., prior to acceptance into the
339**

342 program. A program director is required to provide verification of
343 residency education for any residents who may leave the program
344 prior to completion of their education.
345

346 **D. Presence of Fellows and Other Students**

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348 The presence of subspecialty fellows or students must not dilute or
349 detract from the educational opportunities of the anesthesiology
350 residents.
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352 **IV. Faculty**

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354 The program director and faculty are responsible for the general
355 administration of the program and for the establishment and maintenance
356 of a stable educational environment. Adequate lengths of appointment for
357 the program director and faculty are essential to maintaining such an
358 environment. The length of appointment for the program director should
359 provide for continuity of leadership. Frequent changes in leadership or long
360 periods of temporary leadership may adversely affect an educational program and
361 may present serious cause for concern. When a new director, either permanent or
362 acting, has been appointed, the RRC must be notified immediately. The RRC may
363 initiate an inspection of the program in conjunction with this change when it deems it
364 necessary to ensure continuing quality.
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366 **A. Qualifications of the Program Director**

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368 **1. There must be a single program director responsible for the**
369 **program. The person designated with this authority is**
370 **accountable for the operation of the program and should be a**
371 **member of the staff of the sponsoring or integrated institution.**
372

373 **2. The program director must**

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375 **a. possess faculty experience, leadership, organizational**
376 **and administrative qualifications, and the ability to**
377 **function effectively within an institutional governance.**

378 The program director must have significant academic
379 achievements in anesthesiology, such as publications, the
380 development of educational programs, or the conduct of
381 research.
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383 **b. be certified by the American Board of Anesthesiology or**
384 **possess qualifications judged to be acceptable by the**
385 **RRC.**

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387 **c. be appointed in good standing and based at the primary**
388 **teaching site.**
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B. Responsibilities of the Program Director

- 1. Overseeing and organizing the activities of the educational program in all institutions that participate in the program. This includes selecting and supervising the faculty and other program personnel at each participating institution, appointing a local site director, and monitoring appropriate resident supervision at all participating institutions.**
- 2. Preparing an accurate statistical and narrative description of the program as requested by the RRC as well as updating annually the program and resident records through the ACGME Accreditation Data System (ADS).**
- 3. Promptly notifying the executive director of the RRC using the ADS of a change in program director or department chair.**
- 4. Ensuring the implementation of fair policies and procedures, as established by the sponsoring institution, to address resident grievances and due process in compliance with the Institutional Requirements.**
- 5. Monitoring resident stress, including mental or emotional conditions inhibiting performance or learning, and drug- or alcohol-related dysfunction. The residency program must have a written policy and an educational program regarding substance abuse that specifically address the needs of anesthesiology. Both the program director and faculty should be sensitive to the need for timely provision of confidential counseling and psychological support services to residents. Situations that demand excessive service or that consistently produce undesirable stress on residents must be evaluated and modified.**
- 6. Obtaining prior approval of the RRC for changes in the program that may significantly alter the educational experience of the residents, for example:**
 - a. The addition or deletion of major participating institution(s) as specified in section II.B. of this document.**
 - b. Change in the approved resident complement.**
 - c. Change in the format of the educational program. On review of a proposal for a major change in a program, the RRC may determine that a site visit is necessary.**

C. Faculty Qualifications

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1. **The physician faculty must**
 - a. **possess requisite specialty expertise as well as documented educational and administrative abilities and experience.**
 - b. **be certified by the American Board of Anesthesiology or possess qualifications judged by the RRC to be acceptable.**

Faculty who are not ABA certified should be in the process of obtaining certification.
 - c. **be appointed in good standing to the staff of an institution participating in the program.**
2. **Nonphysician faculty must be appropriately qualified in their field and possess appropriate institutional appointments.**

D. Faculty Responsibilities

1. **At each institution participating in the program, there must be a sufficient number of faculty with documented qualifications to instruct and supervise adequately the residents in the program.** 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.
2. **Faculty members must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. The faculty must evaluate in a timely manner the residents whom they supervise.**
3. **The faculty must demonstrate a strong interest in the education of residents, demonstrate competence in both clinical care and teaching abilities, support the goals and objectives of the educational program, and demonstrate commitment to their own continuing medical education by participating in scholarly activities as described in Section V.E.1.**
4. The faculty should have varying interests, capabilities, and backgrounds, and must include individuals who have specialized expertise in the subspecialties of anesthesiology, which include but are not limited to critical care, obstetric anesthesia, pediatric anesthesia, neuroanesthesia, cardiothoracic anesthesia, and pain

486 management. Didactic and clinical teaching must be provided by
487 faculty with documented interests and expertise in the subspecialty
488 involved. Fellowship training; several years of practice, primarily
489 within a subspecialty; and membership and active participation in
490 national organizations related to the subspecialty may signify
491 expertise.

492
493 **5.** Teaching by residents of medical students and junior residents
494 represents a valid learning experience. However, the use of a
495 resident as an instructor of junior residents must not substitute for
496 experienced faculty.

497
498 **E. Other Program Personnel**

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500 **1. The program must be provided with the additional**
501 **professional, technical, and clerical personnel needed to**
502 **support the administration and educational conduct of the**
503 **program.**

504
505 **2.** The integration of nonphysician personnel into a department with an
506 accredited program in anesthesiology will not influence the
507 accreditation of such a program unless it becomes evident that such
508 personnel interfere with the training of resident physicians.
509 Interference may result from dilution of faculty effort, dilution of the
510 available teaching experience, or downgrading of didactic material.
511 Clinical instruction of residents by nonphysician personnel is
512 inappropriate, as is excessive supervision of such personnel by
513 resident staff.

514
515 **V. The Educational Program**

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517 **The program design and sequencing of educational experiences will be**
518 **approved by the RRC as part of the accreditation process.**

519
520 **A. Role of Program Director and Faculty**

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522 **The program director, with assistance of the faculty, is responsible**
523 **for developing and implementing the academic and clinical program**
524 **of resident education by**

525
526 **1. preparing and implementing a written statement outlining the**
527 **educational goals of the program with respect to the**
528 **knowledge, skills, and other attributes of residents for each**
529 **major assignment and each level of the program. The**
530 **statement must be distributed to residents and faculty and**
531 **reviewed with residents prior to the assignment.**

532
533 **2. preparing and implementing a comprehensive, well-organized,**

534 and effective curriculum, both academic and clinical, which
535 includes the presentation of core specialty knowledge
536 supplemented by the addition of current information.

537
538 3. providing residents with direct experience in progressive
539 responsibility for patient management.

540
541 **B. ACGME Competencies**

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543 The residency program must require that its residents obtain
544 competence in the six areas listed below to the level expected of a
545 new practitioner. Programs must define the specific knowledge,
546 skills, behaviors, and attitudes required and provide educational
547 experiences as needed in order for their residents to demonstrate the
548 following:

- 549
- 550 1. ***Patient care*** that is compassionate, appropriate, and effective
551 for the treatment of health problems and the promotion of
552 health.
 - 553
 - 554 2. ***Medical knowledge*** about established and evolving biomedical,
555 clinical, and cognate (eg, epidemiological and social-
556 behavioral) sciences and the application of this knowledge to
557 patient care.
 - 558
 - 559 3. ***Practice-based learning and improvement*** that involves
560 investigation and evaluation of their own patient care,
561 appraisal and assimilation of scientific evidence, and
562 improvements in patient care.
 - 563
 - 564 4. ***Interpersonal and communication skills*** that result in effective
565 information exchange and collaboration with patients, their
566 families, and other health professionals.
 - 567
 - 568 5. ***Professionalism***, as manifested through a commitment to
569 carrying out professional responsibilities, adherence to ethical
570 principles, and sensitivity to a diverse patient population.
 - 571
 - 572 6. ***Systems-based practice***, as manifested by actions that
573 demonstrate an awareness of and responsiveness to the
574 larger context and system of health care and the ability to
575 effectively call on system resources to provide care that is of
576 optimal value.

577
578 **C. Scholarly Activities**

- 579
- 580 1. The responsibility for establishing and maintaining an
581 environment of inquiry and scholarship rests with the faculty,

582 and an active research component must be included within
583 each program. Both faculty and residents must participate
584 actively in scholarly activity. Scholarship is defined as the
585 following:

- 587 a. The scholarship of discovery, as evidenced by peer-
588 reviewed funding or publication of original research in
589 peer-reviewed journals.
 - 591 b. The scholarship of dissemination, as evidenced by
592 review articles or chapters in textbooks.
 - 594 c. The scholarship of application, as evidenced by the
595 publication or presentation at local, regional, or national
596 professional and scientific society meetings, for
597 example, case reports or clinical series.
 - 598 d. Active participation of the faculty in clinical discussions,
599 rounds, journal club, and research conferences in a
600 manner that promotes a spirit of inquiry and
601 scholarship; offering of guidance and technical support,
602 e.g., research design, statistical analysis, for residents
603 involved in research; and provision of support for
604 resident participation as appropriate in scholarly
605 activities.
- 607 2. Adequate resources for scholarly activities for faculty and
608 residents must be available, eg, sufficient laboratory space,
609 equipment, computer services for data analysis, and statistical
610 consultation services.

611 D. Resident Duty Hours and the Working Environment

612 Providing residents with a sound academic and clinical education
613 must be carefully planned and balanced with concerns for patient
614 safety and resident well-being. Each program must ensure that the
615 learning objectives of the program are not compromised by
616 excessive reliance on residents to fulfill service obligations. Didactic
617 and clinical education must have priority in the allotment of residents'
618 time and energies. Duty hour assignments must recognize that
619 faculty and residents collectively have responsibility for the safety
620 and welfare of patients.

621 1. Supervision of Residents

- 622 a. All patient care must be supervised by qualified faculty.
623 The program director must ensure, direct, and document
624 adequate supervision of residents at all times.
625 Residents must be provided with rapid, reliable systems

630 for communicating with supervising faculty.

- 631
- 632 **b. Faculty schedules must be structured to provide**
- 633 **residents with continuous supervision and consultation.**
- 634 Supervision shall not vary substantially with the time of day or
- 635 day of the week. In the clinical setting, faculty members should
- 636 not direct anesthesia at more than two anesthetizing locations
- 637 simultaneously.
- 638
- 639 **c. Faculty and residents must be educated to recognize the**
- 640 **signs of fatigue and adopt and apply policies to prevent**
- 641 **and counteract the potential negative effects.**
- 642

643 **2. Duty Hours**

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- 645 **a. Duty hours are defined as all clinical and academic**
- 646 **activities related to the residency program, ie, patient**
- 647 **care (both inpatient and outpatient), administrative**
- 648 **duties related to patient care, the provision for transfer of**
- 649 **patient care, time spent in-house during call activities,**
- 650 **and scheduled academic activities such as conferences.**
- 651 **Duty hours do not include reading and preparation time**
- 652 **spent away from the duty site.**
- 653
- 654 **b. Duty hours must be limited to 80 hours per week,**
- 655 **averaged over a four-week period, inclusive of all in-**
- 656 **house call activities.**
- 657
- 658 **c. Residents must be provided with 1 day in 7 free from all**
- 659 **educational and clinical responsibilities, averaged over a**
- 660 **4-week period, inclusive of call. One day is defined as**
- 661 **one continuous 24-hour period free from all clinical,**
- 662 **educational, and administrative activities.**
- 663
- 664 **d. Adequate time for rest and personal activities must be**
- 665 **provided. This should consist of a 10 hour time period**
- 666 **provided between all daily duty periods, and after in-**
- 667 **house call. The RRC will not consider requests for a rest**
- 668 **period of less than 10 hours.**
- 669

670 **3. On-Call Activities**

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672 **The objectives of on-call activities are to provide residents with**

673 **continuity of patient care experiences throughout a 24-hour**

674 **period, as well as the challenges of providing care outside regular**

675 **duty hours. Therefore, on-call activities, including those that occur**

676 **throughout the night, are necessary components of the education of**

677 **all residents. In-house call is defined as those duty hours**

678 beyond the normal work day when residents are required to be
679 immediately available in the assigned institution.

- 680
- 681 a. In-house call must occur no more frequently than every
682 third night, averaged over a four-week period.
- 683
- 684 b. Continuous on-site duty, including in-house call, must
685 not exceed 24 consecutive hours. Residents may
686 remain on duty for up to 6 additional hours to participate
687 in didactic activities, transfer care of patients, conduct
688 outpatient clinics, and maintain continuity of medical and
689 surgical care. During the 6 additional hours, residents
690 may not administer anesthesia in the operating room for
691 a new operative case or manage new admissions to the
692 ICU. The resident should not manage non-continuity
693 patients in the 6 hours post-call.
- 694
- 695 c. No new patients may be accepted after 24 hours of
696 continuous duty. A new patient is defined as any patient
697 for whom the resident has not previously provided care.
- 698
- 699 d. At-home call (pager call) is defined as call taken from
700 outside the assigned institution.
- 701
- 702 1) The frequency of at-home call is not subject to the
703 every third night limitation. However, at-home call
704 must not be so frequent as to preclude rest and
705 reasonable personal time for each resident.
706 Residents taking at-home call must be provided
707 with 1 day in 7 completely free from all educational
708 and clinical responsibilities, averaged over a 4-
709 week period.
- 710
- 711 2) When residents are called into the hospital from
712 home, the hours residents spend in-house are
713 counted toward the 80-hour limit.
- 714
- 715 3) The program director and the faculty must monitor
716 the demands of at-home call in their programs and
717 make scheduling adjustments as necessary to
718 mitigate excessive service demands and/or
719 fatigue.

720

721 **4. Moonlighting**

722

- 723 a. Because residency education is a full-time endeavor, the
724 program director must ensure that moonlighting does
725 not interfere with the ability of the resident to achieve the

726 goals and objectives of the educational program.

727
728 **b. The program director must comply with the sponsoring**
729 **institution's written policies and procedures regarding**
730 **moonlighting, in compliance with the Institutional**
731 **Requirements III. D.1.k.**

732
733 **c. Moonlighting that occurs within the residency program**
734 **and/or the sponsoring institution or the non-hospital**
735 **sponsor's primary clinical site(s), ie, internal**
736 **moonlighting, must be counted toward the 80-hour**
737 **weekly limit on duty hours.**

738
739 **5. Oversight**

740
741 **a. Each program must have written policies and**
742 **procedures consistent with the Institutional and**
743 **Program Requirements for resident duty hours and the**
744 **working environment. These policies must be**
745 **distributed to the residents and the faculty. Monitoring**
746 **of duty hours is required with frequency sufficient to**
747 **ensure an appropriate balance between education and**
748 **service.**

749
750 **b. Back-up support systems must be provided when**
751 **patient care responsibilities are unusually difficult or**
752 **prolonged, or if unexpected circumstances create**
753 **resident fatigue sufficient to jeopardize patient care.**

754
755 **6. Duty Hours Exceptions**

756
757 **The RRC for Anesthesiology will not consider requests for an**
758 **exception to the limit to 80 hours per week, averaged monthly.**

759
760 **E. Didactic Components**

761
762 Didactic instruction should encompass clinical anesthesiology and
763 related areas of basic science, as well as pertinent topics from other
764 medical and surgical disciplines. Practice management should be
765 included in the curriculum and should address issues such as
766 operating room management, types of practice, job acquisition,
767 financial planning, contract negotiations, billing arrangements, and
768 issues of professional liability. The material covered in the didactic
769 program should demonstrate appropriate continuity and sequencing
770 to ensure that residents are ultimately exposed to all subjects at
771 regularly held teaching conferences. The number and types of such
772 conferences may vary among programs, but a conspicuous sense of
773 faculty participation must characterize them. The program director

774 should also seek to enrich the program by providing lectures and
775 contact with faculty from other disciplines and other institutions.

776
777 F. Clinical Components

778
779 1. Clinical Experience

780 A wide spectrum of disease processes and surgical
781 procedures must be available within the program to provide
782 each resident with a broad exposure to different types of
783 anesthetic management. The following list represents the
784 minimum clinical experience that should be obtained by each
785 resident in the program. Although the minimum requirements
786 are for the CA-1 through CA-3 years, the majority of these
787 should be accomplished in the CA-1 and CA-2 years.

- 789
- 790 a. Forty anesthetics for vaginal delivery; evidence of direct
791 involvement in cases involving high-risk obstetrics, as
792 well as a minimum of 20 cesarean sections.
 - 793
 - 794 b. Anesthesia for 100 children under the age of 12,
795 including anesthesia for 15 infants less than 1 year of
796 age, including infants less than 45 weeks
797 postconceptual age.
 - 798
 - 799 c. Anesthesia for 20 patients undergoing surgical
800 procedures involving cardiopulmonary bypass.
 - 801
 - 802 d. Twenty other major vascular cases (including
803 endovascular cases).
 - 804
 - 805 e. Twenty intrathoracic (thoracotomy, thoracoscopy)
806 noncardiac cases.
 - 807
 - 808 f. Twenty procedures involving an open cranium, some of
809 which must include intracerebral vascular procedures.
 - 810
 - 811 g. Fifty epidural anesthetics for patients undergoing
812 surgical procedures, including cesarean sections.
 - 813
 - 814 h. Ten major trauma cases.
 - 815
 - 816 i. Fifty subarachnoid blocks performed for patients
817 undergoing surgical procedures.
 - 818
 - 819 j. Forty peripheral nerve blocks for patients undergoing
820 surgical procedures.
 - 821
 - 822 k. Twenty-five new patient evaluations for management of
823 patients with acute, chronic or cancer pain disorders.
Residents should have familiarity with the breadth of

- 824 pain management including clinical experience with
825 interventional pain procedures.
- 826
- 827 l. Documented involvement in the management of acute
828 postoperative pain, including familiarity with patient-
829 controlled intravenous techniques, neuraxial blockade,
830 and other pain-control modalities.
- 831
- 832 m. Documented involvement in the systematic process of
833 the preoperative management of the patient.
- 834
- 835 n. Significant experience with certain specialized
836 techniques for airway management (such as fiberoptic
837 intubation, double lumen endotracheal tube placement,
838 and laryngeal mask airway management), central vein
839 catheter placement, pulmonary artery catheter
840 placement, peripheral artery cannulation,
841 transesophageal echocardiography, evoked potentials,
842 and electroencephalography.
- 843
- 844 o. A postanesthesia care experience of 2 contiguous
845 weeks, which must involve direct care of patients in the
846 postanesthesia-care unit and responsibilities for
847 management of pain, hemodynamic changes, and
848 emergencies related to the postanesthesia-care unit.
849 Designated faculty must be readily and consistently
850 available for consultation and teaching.
- 851
- 852 p. Critical care rotation, including active participation in
853 patient care by anesthesia residents in an educational
854 environment in which participation and care extend
855 beyond ventilatory management, and active
856 involvement by anesthesiology faculty experienced in
857 the practice and teaching of critical care. This training
858 must take place in units in which the majority of patients
859 have multisystem disease. The postanesthesia-care
860 unit experience does not satisfy this requirement.
- 861
- 862 q. Appropriate didactic instruction and sufficient clinical
863 experience in managing problems of the geriatric
864 population.
- 865
- 866 r. Appropriate didactic instruction and sufficient clinical
867 experience in managing the specific needs of the
868 ambulatory surgical patient.
- 869
- 870 2. Clinical Documentation
- 871
- 872 a. Resident Log
- 873

874 The program director must require the residents to
875 maintain an electronic record of their clinical
876 experience. The record must be reviewed by the
877 program director or faculty on a regular basis. It must
878 be submitted annually to the RRC office in accordance
879 with the format and the due date specified by the RRC.

880
881 The program should also have the means for
882 monitoring the appropriate distribution of cases among
883 the residents.

884
885 b. Patient Records

886
887 A comprehensive anesthesia record must be
888 maintained for each patient as an ongoing reflection of
889 the drugs administered, the monitoring employed, the
890 techniques used, the physiologic variations observed,
891 the therapy provided as required, and the fluids
892 administered. The patient's medical record should
893 contain evidence of preoperative and postoperative
894 anesthesia assessment.

895
896
897 **VI. Evaluation**

898
899 **A. Resident Evaluation**

- 900
901 **1. The residency program must demonstrate that it has an**
902 **effective plan for assessing resident performance throughout**
903 **the program and for utilizing the results to improve resident**
904 **performance. This plan should include**
- 905
906 **a. the use of methods that produce an accurate assessment of**
907 **residents' competence in patient care, medical knowledge,**
908 **practice-based learning and improvement, interpersonal and**
909 **communication skills, professionalism, and systems-based**
910 **practice.**
 - 911
912 **b. mechanisms for providing regular and timely performance**
913 **feedback to residents that includes at least**
 - 914
915 **1) written semiannual evaluation that is communicated to**
916 **each resident in a timely manner and**
 - 917
918 **2) the maintenance of a record of evaluation for each resident**
919 **that is accessible to the resident.**
 - 920
921 **c. a process involving use of assessment results to achieve**

922 progressive improvements in residents' competence and
923 performance. Appropriate sources of evaluation include
924 faculty, patients, peers, self, and other professional staff.
925

- 926 2. The program director must provide a final evaluation for each
927 resident who completes the program. The evaluation must
928 include a review of the resident's performance during the final
929 period of education and should verify that the resident has
930 demonstrated sufficient professional ability to practice
931 competently and independently. The final evaluation must be
932 part of the resident's permanent record maintained by the
933 institution.

934 **B. Faculty Evaluation**

935
936 The performance of the faculty must be evaluated by the program no
937 less frequently than at the midpoint of the accreditation cycle and
938 again prior to the next site visit. The evaluations should include a
939 review of their teaching abilities, commitment to the educational
940 program, clinical knowledge, and scholarly activities. Annual written
941 confidential evaluations by residents must be included in this
942 process.
943

944 **C. Program Evaluation**

945
946 The educational effectiveness of a program must be evaluated at
947 least annually in a systematic manner.
948

- 949
950 1. Representative program personnel, ie, at least the program
951 director, representative faculty, and at least one resident, must
952 be organized to review program goals and objectives and the
953 effectiveness of the program in achieving them. The group
954 must have regular documented meetings at least annually for
955 this purpose. In the evaluation process, the group must take
956 into consideration written comments from the faculty, the most
957 recent report of the GMEC of the sponsoring institution (see
958 Institutional Requirements I.B.3.d), and the residents'
959 confidential written evaluations. If deficiencies are found, the
960 group should prepare an explicit plan of action, which should
961 be approved by the faculty and documented in the minutes.

962 2. Outcome assessment

963
964 a. The program should use resident performance and outcome
965 assessment in its evaluation of the educational effectiveness of
966 the residency program.
967

968 b. The program should have in place a process for using
969 resident and performance assessment results together with

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other program evaluation results to improve the residency program.

- 3. Performance of program graduates on the certification examination should be used as one measure of evaluating program effectiveness.** As part of the overall evaluation of the program, the RRC will take into consideration the information provided by the ABA regarding resident performance on the certifying examinations over the most recent 5-year period. The RRC 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.

VII Experimentation and Innovation

- A. Since responsible innovation and experimentation are essential to improving professional education, experimental projects supported by sound educational principles are encouraged.**
- B. Requests for experimentation or innovative projects that may deviate from the program requirements must be RRC prior-approved and must include the educational rationale and a method for evaluating the project.**
- C. The sponsoring institution and program are jointly responsible for the quality of education offered to residents for the duration of such a project.**

VIII. Board Certification

Residents who plan to seek certification by the American Board of Anesthesiology should communicate with the Executive Vice President of the American Board of Anesthesiology, Inc., 4101 Lake Boone Trail, The Summit - Suite 510, Raleigh, NC 27607-7506, to ascertain the current requirements for acceptance as a candidate for certification.

ACGME: June 2000 Effective: January 2001
Common Program Requirements: July 1, 2003

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