ACGME Program Requirements for Graduate Medical Education
in Emergency Medicine
Summary and Impact of Major Requirement Revisions

Requirement #: **4.1.**

Requirement Revision (significant change only):

The educational program in Emergency Medicine must be 48 months in duration. (Core)

~~Residency programs in emergency medicine are configured in 36-month and 48-month formats, and must include a minimum of 36 months of clinical education.~~ ~~(Core)~~

1. Describe the Review Committee's rationale for this revision:
   The Review Committee looked at what a successful curriculum would be for an emergency medicine resident, based on required experiences as well as areas for growth in the specialty brought forth by the stakeholder meetings, literature review, and expert consensus. Without looking at the total number of weeks, the committee created a curriculum that met these requirements, and once built it was too long for a 36-month curriculum. In addition, emergency medicine shifts nationwide are becoming shorter with fewer clinical hours per week. This has led to fewer patient encounters, necessitating a need for more time in the emergency department. There has also been an overall downward trend in the American Board of Emergency Medicine (ABEM) board pass rates. Further, the Writing Group conducted a survey of the emergency medicine program directors to solicit their opinions on the various aspects of education and training as the work was finalized. There were 173 survey respondents, or approximately 60 percent of the 289 total accredited programs. When the survey group was asked about the required rotation months an emergency medicine resident must have during residency, the mean response was 43.4 months, excluding vacation time. This was further broken down by program length such that the mean from all three-year program responses was 41.58 months, and the mean from all four-year program responses was 50.65 months. As such, there is a clear indication that it is time to standardize the length of the curriculum for all programs to better align with the educational and competency needs of the emergency medicine residents going forward. To that end, the committee believes that the proposed new curriculum provides the foundational framework which all emergency medicine residents must experience prior to independent practice, and thus the consensus decision was to change the emergency medicine residency programs to a single, standard 48-month format.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   As stated, the proposed changes address several areas for improvement identified in the current educational experience. In the proposed new standard 48-month format, resident education will be enhanced by requiring rotations in low-acuity settings, low-resource settings, as well as increased time in pediatrics, and flexibility with critical care.

3. How will the proposed requirement or revision impact continuity of patient care?

Not applicable.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   Programs that currently exist in a 36-month format may choose to expand their complement to keep the same number of residents per year (provided they have adequate patient volume – see below) or they may choose to keep the same complement and decrease the number of positions per year. An increase in resident complement would require financial support as well as possible additional program leadership FTE, program coordinator FTE, and core faculty FTE.

5. How will the proposed revision impact other accredited programs?
   Not applicable.

Requirement #: **1.6.f.; 2.10.e.; and 4.11.d.2.c.**

Requirement Revision (significant change only):

[1.6.f.] Programs must utilize at least one high-resource emergency department and at least one low-resource emergency department for training in emergency medicine. (Core)

[2.10.e.] When faculty members who possess certification other than ABEM or AOBEM supervise residents assigned to a low-resource emergency department or low-acuity emergency medicine rotation, this time does not count toward the required 124 weeks of core emergency medicine experience which must occur under the supervision of board-certified emergency medicine physicians. (Core)

[4.11.d.2.c.] At least four weeks of this clinical experience must be at a low-resource emergency department and four weeks at a high-resource emergency department. (Core)

1. Describe the Review Committee's rationale for this revision:
   The committee received feedback that requirements should allow residents to experience multiple types of education and training environments, with the goal that exposure to less commonly chosen career paths where emergency medicine physicians are in need, such as rural and other low-resource emergency departments, may increase the pathway into these locations. The committee understands that due to a lack of emergency medicine-trained physicians in many of these locations, some low-resource emergency departments are staffed by physicians who are not certified in emergency medicine. The committee values the contributions of physicians providing patient care in low-resource emergency departments who possess board certification in other specialties, and the benefits they may provide to residents learning about patient care in these settings. The Review Committee expects the core content of emergency medicine education and training to be delivered and supervised by ABEM and/or American Osteopathic Board of Emergency Medicine (AOBEM) board-certified physicians and thus does not consider time spent working with a non-emergency medicine board certified physician as core emergency medicine training time.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Requiring all residents to experience patient care settings in both high- and low-resource environments ensures residents have a more balanced experience overall and better prepares them to practice autonomously in any setting.

3. How will the proposed requirement or revision impact continuity of patient care?
   Not applicable.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   No impact anticipated.

5. How will the proposed revision impact other accredited programs?
   No impact anticipated.

Requirement #: **1.8.h.**

Requirement Revision (significant change only):

[1.8.h.] The aggregate annual volume of patients in the emergency department at the primary and participating emergency department sites must total at least 3,000 patient visits per approved resident position in the program, determined via a calculation defined by the Review Committee. (Core)

1. Describe the Review Committee's rationale for this revision:
   Programs will have more than one site to provide residents with experience in both high- and low-resource settings. Whereas the previous requirement for annual patient volume considered only the primary clinical site, the new requirement incorporates the volumes at all sites used for emergency medicine rotations to more accurately estimate the minimum number of patient encounters that residents will have available to them throughout their program. According to the survey results, when asked how many total emergency department patient encounters are necessary in order for an emergency medicine resident to acquire the knowledge, skills, and behaviors to enter autonomous practice, the mean response was 4,675.60 patients. Broken down, the mean response from three-year programs was 4,350 patients, and 6,031 patients from four-year programs. An analysis of the existing data for accredited emergency medicine programs showed that using a minimum of 4,000 patient encounters per resident would be disadvantageous to a significant number of programs. As such, the committee modified the minimum so that programs should provide education and training sites with adequate annual volumes and acuity to support each resident in achieving a minimum of 3,000 new emergency department patient encounters over the course of their program. This target for a minimum resource per resident was chosen based on the calculation that a resident sees a minimum of one patient per hour during their rotations in the emergency department (124 weeks), including adults and pediatrics, over a standard 40-hour work week.

From a resource requirement, a minimum of 3,000 patients per resident should be available to ensure this goal can be met. This takes into account the difference in patients per hour as efficiency progresses through education and training, as well as the co-utilization of a single patient as a patient encounter when senior residents supervise more junior residents, as well as patients that are received in hand-off.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   By ensuring there is a minimum number of patients per resident available at a residency program, residents will be afforded the opportunity to see the breadth of emergency medicine and hone the skills germane to the specialty.

3. How will the proposed requirement or revision impact continuity of patient care?
   Not applicable.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   There will be some programs that find that the current aggregate volumes at their site(s) meet or exceed the current minimum of 3,000, while others are below this number. According to the current requirements, using a minimum annual volume of 30,000 for a three-year program and a minimum complement of 16 residents, the total available patient volume per resident is approximately 3,000 patients. This has been calculated as follows:

   A three-year program is 156 weeks, of which a minimum of 60 percent (93.6 weeks) is time in the emergency department. An emergency department with an annual volume of 30,000 (divided by 52) has a total weekly volume of 577 patients. Multiplying this weekly volume of 577 by the number of weeks of emergency medicine over the course of three years (93.6) gives a total available patient volume of 54,000. When the total available volume (54,000) is divided by the total number of residents (16), 3,375 is the number of patient encounters per resident in the emergency department over the course of the three years. Current three-year programs which must adopt the new four-year format will add an additional 31 weeks to the emergency medicine time (for a total of 124 weeks) to give a total volume of 71,548. When dividing this volume by 16 (if the program retains the same complement), the total available patient volume per resident increases to approximately 4,464. The committee predicts that this total will further increase when taking into account the new requirement for dedicated rotations which typically have higher patient/hour volumes, such as low-acuity patients and primary care of patients in the emergency department setting as senior residents.

   Programs that are below this target will need to assess their current curriculum to determine where modifications can be made. Modifications may include, but are not limited to:
   - **Increasing the number of emergency department rotations in the curriculum**
   - **Increasing the number of rotations at the higher-volume sites**
   - **Increasing the hours per week or number of shifts in the emergency department (in compliance with work hour rules)**

5. How will the proposed revision impact other accredited programs?
   Not applicable.

Requirement #: **1.8.j.**; **4.11.d.3.d.**

Requirement Revision (significant change only):

[1.8.j.] The aggregate annual volume of critical care patients at the primary and participating emergency department clinical sites must total at least 120 critical care patients per approved resident position in the program, determined via a calculation defined by the Review Committee. (Core)

[4.11.d.3.d.] When the aggregated critical care volumes in the emergency departments across the primary and participating sites do not total at least 120 critical care patients per approved resident position in the program, a minimum of at least four weeks of additional critical care experience must be added to the curriculum. (Core)

1. Describe the Review Committee's rationale for this revision:
   The committee considered feedback from stakeholder meetings which suggested that the current expectation for critical care volume should be increased from its current minimum of at least three percent of the total annual patient volume. Based on our Writing Group discussions, it was felt that it is better to shift our focus on critical care volume and procedures from a percentage of the total patient volume to a minimum goal per approved residents in the program. The new requirement also takes into account critical care patient volumes from all sites at which residents are assigned emergency medicine rotations. Over a four-year period, 120 patients per approved resident should allow residents the ability to achieve the minimum number of all expected resuscitations and critical procedures.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The requirement for a defined number of critical care patients per emergency medicine resident is a strategic approach to ensure that residents gain the necessary experience and skills to provide high-quality, safe, and effective patient care. This structured exposure enhances the educational experience, bolsters patient safety through improved competence and confidence, and elevates the overall quality of patient care by fostering timely and proficient medical interventions.

3. How will the proposed requirement or revision impact continuity of patient care?
   No impact anticipated.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   The new requirement ties emergency department patient critical care annual volume across all sites to the number of residents in the program, which is a change from the prior requirement for a minimum of three percent or 1200 patients, whichever was higher, in the primary site. This new metric will not have an impact on resources unless the program does not meet the minimum availability of 120 critical care patients per resident, in which case the program will need to either add an additional rotation in an intensive care unit (ICU) setting outside of the emergency department, add emergency medicine rotations in higher acuity settings, or modify the participating sites of emergency medicine rotations to include higher-acuity settings in order to meet this requirement.

5. How will the proposed revision impact other accredited programs?
   No impact anticipated.

Requirement #: **4.5.i.**

Requirement Revision (significant change only):

Resident procedural experiences must be tracked in the ACGME Case Log System and must meet minimums as defined by the Review Committee. (Core)

1. Describe the Review Committee's rationale for this revision:
   While the Program Requirements define a minimum number of procedures for each resident, the Review Committee lacks insight into the actual experience of individual residents, as program directors report the average number of procedures completed for each graduating class. The average number of procedures by graduating class does not ensure that all residents are meeting the required procedural minimums. The Review Committee believes that improved data monitoring will enable it to refine procedure-related requirements going forward and will allow for better evaluation of proposed new participating sites, the adequacy of patient volume resources, and closer management of complement changes. Further, collecting individual resident procedural data will help inform the Review Committee of the effects of shifts in practice on the residents' procedural experience and provide more accurate data to assist in evaluating and adjusting the procedural minimums when needed.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Implementation of the ACGME Case Log System will provide the Review Committee, program directors, and residents with a detailed accounting of a resident's longitudinal procedural experience, allowing program directors to make curriculum adjustments to ensure residents are on track to achieve the minimum procedural requirements throughout the program. The reporting function facilitates procedural tracking, the work of the Clinical Competency Committee, and the authoring of the Annual Program Evaluation. Designated institutional officials will have improved insight into emergency medicine program performance.

3. How will the proposed requirement or revision impact continuity of patient care?
   No impact anticipated.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   Program directors, program coordinators, and emergency medicine residents will require additional training to use the ACGME Case Log system. No additional facilities, faculty members, or financial support are required.

5. How will the proposed revision impact other accredited programs?
   No impact anticipated.

Requirement #: **[4.5.j.1.]; [4.5.j.2.]; [4.5.j.12.]; [4.5.j.13.]; [4.5.j.14.]**

Requirement Revision (significant change only):

[4.5.j.] Residents must demonstrate competence in performing the following key index procedures:

[4.5.j.1.] adult medical resuscitation, including the performance as a team leader; (Core)
[4.5.j.2.] adult trauma resuscitation, including the performance as a team leader; (Core)
[4.5.j.12.] ~~pediatric~~ medical resuscitation of neonates, including the performance as team leader; (Core)

[4.5.j.13.] medical resuscitation of infants and children under 12, including the performance as team leader; (Core)

[4.5.j.14.] ~~pediatric~~ trauma resuscitation of infants and children under 12, including the performance as team leader; (Core)

1. Describe the Review Committee's rationale for this revision:
   The revised requirements more clearly define resuscitations as they pertain to critically ill and injured patients in various age groups. The key clinical and educational experience is to lead medical and trauma resuscitations, including assessing the patient, directing the performance of life- and limb-saving interventions, and managing the health care team. Although several residents may participate in the resuscitation of a single patient, only one physician performs the crucial team leader role.

   In addition to clarifying the need to perform the team leader role, the revised language clarifies the definition of pediatric patients as infants and children under 12, a group for whom resuscitation skills differ from those needed to treat adults.

   Directing neonatal resuscitation is added as a required skill/experience.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   An emergency medicine physician must be prepared to resuscitate patients of all ages and with a wide variety of medical conditions. The new requirements ensure that, prior to completion of residency, all emergency medicine physicians will have the experience and demonstrate competence in the resuscitation of newborns, preadolescent children, and adults, and the skill of resuscitating people of all ages with medical illnesses and trauma.

   Although about 10 percent of newborns in the US need resuscitation, the current Program Requirements for Emergency Medicine do not require training in this skill. While unplanned births outside the hospital are uncommon, the ability to perform neonatal resuscitation is a critical, potentially lifesaving skill, particularly for emergency medicine physicians practicing in a hospital without a dedicated labor and delivery unit (65 percent of US hospitals).

   The required experience directing resuscitation for preadolescent children addresses long-recognized opportunities to improve the care of these patients.

3. How will the proposed requirement or revision impact continuity of patient care?
   Not applicable.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   Programs will need to ensure that their residents have the ability to be the team leader of resuscitations in all clinical settings. This will require collaboration with other specialty services, such as trauma/acute care surgery, pediatric critical care medicine, and neonatology, so that senior residents have this experience.

   The definition of pediatric resuscitation as pertaining to infants and children under 12 may require some programs with a low volume of critically ill/injured children to identify additional experiences for their residents to develop the skill of running pediatric resuscitations.

   The requirement for neonatal resuscitation experience is new and may be achieved by resuscitation in the delivery room, structured training (e.g., neonatal resuscitation program training), and simulation.

5. How will the proposed revision impact other accredited programs?
   In any given hospital, there is a finite number of patients requiring resuscitation. Requiring this procedure for emergency medicine residents may decrease the number of resuscitations directed by learners in other specialties (e.g., surgery, pediatrics, pediatric emergency medicine, and critical care).

Requirement #: **[4.5.j.9.]; [4.4.c.]; [4.11.f.4.]; [4.11.f.4.a.]**

Requirement Revision (significant change only):

Removed:
[4.5.j.] Residents must demonstrate competence in performing the following key index procedures:
~~[4.5.j.9.] emergency department bedside ultrasound;~~ ~~(Core)~~

Modified:
[4.4.c.] Residents must demonstrate competence in selecting, interpreting, and applying appropriate ~~the results~~ diagnostic and therapeutic modalities based on available resources, including electrocardiography, laboratory, radiography, and point-of-care ultrasonography testing based on the probability of disease and the likelihood of test results altering management. (Core)

Added:
[4.11.f.4.] Residents must have a structured experience in non-laboratory diagnostics, including:

[4.11.f.4.a.] performing and interpreting point-of-care diagnostic and procedural ultrasonography; and, (Core)

1. Describe the Review Committee's rationale for this revision:
   Ultrasound training has been standardized over the past decade to be an essential part of emergency medicine residency training. Residents have logged more ultrasound procedures than any other procedure and the broad range of specific ultrasound procedures continues to expand. The interpretation of other diagnostic modalities such as electrocardiography and radiographic imaging are not listed as separate procedures to track, but as competencies to be learned through structured experiences. The committee has strengthened the requirement that there must be faculty members with expertise in ultrasound 2.7.a. to provide training in performing and interpreting point-of-care diagnostic and procedural ultrasonography.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The proposed requirements and revision will signify the importance of routine use of ultrasonography in emergency care, including use for lung and cardiac exams in addition to the stethoscope. Patient safety and comfort have been shown to improve when using ultrasound during venous and arterial access and should be done without requiring these to be considered isolated procedures. The revision will create additional flexibility for programs to focus on new ultrasonography techniques including localized blocks, musculoskeletal diagnoses, and other emerging uses.

3. How will the proposed requirement or revision impact continuity of patient care?
   As ultrasound continues to become standardized in medicine, findings will be documented in the physical exam of patients and the findings can be monitored just as other symptoms or described anatomic exam changes have been in the past.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?

Each program will be expected to have access to faculty members with experience in ultrasonography to develop basic and advancing curriculum for both residents and other supervising faculty members. With the successful inclusion of ultrasonography into the everyday practice of emergency medicine, most programs have some educational format to teach this skill; those that do not will have to undertake a search for a faculty members with experience in this area.

5. How will the proposed revision impact other accredited programs?
   No impact.

Requirement #: **4.11.a.4.; 4.11.a.5.; 4.11.a.10.**

Requirement Revision (significant change only):

[4.11.a.4.] There must be ~~an average of~~ at least ~~five~~ 240 synchronous hours ~~per week~~ of planned didactic experiences annually, exclusive of morning report or change of shift teaching ~~developed by the program's faculty members~~. (Core)

~~[4.11.a.5.] Individualized interactive instruction must not exceed 20 percent of the planned didactic experiences.~~ (Core)

[4.11.a.10.] Programs must establish a minimum requirement for conference attendance that meets or exceeds 170 annual hours per resident. (Core)

1. Describe the Review Committee's rationale for this revision:
   The intent of the requirement is to provide a definitive minimum requirement for annual planned didactic hours, as there has been ambiguity and variability among programs in the past. By specifying that the minimum annual standard of 240 hours of planned experiences should be synchronous, the committee intends for the didactics to be experienced by the learners as a group rather than independently. In the past, individualized interactive instruction has been allowed to account for 20 percent of planned didactics. This revision will exclude individualized interactive instruction from counting toward the program minimum of 240 hours of planned didactics; however, it will still count for an individual resident in meeting the attendance requirement of 170 annual hours per resident.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The committee believes that by changing the expectation from a weekly requirement to an hours-based standard, programs will have increased flexibility in scheduling didactic activities of various lengths and at various frequencies that work best for the program and its learners.

3. How will the proposed requirement or revision impact continuity of patient care?
   No impact anticipated.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   No impact anticipated.

5. How will the proposed revision impact other accredited programs?
   No impact anticipated.

Requirement #: **4.11.b.; 4.11.e.**

Requirement Revision (significant change only):

4.11.b. Experiential Curriculum

4.11.e. ~~Resident~~ Structured Experiences

1. Describe the Review Committee's rationale for this revision:
   The committee described a new set of experiential curriculum requirements and in so doing, has adopted a new concept of categorizing them as either rotations or structured experiences. Rotations are discrete identifiable periods of time when residents are engaged in learning experiences depicted on the block diagram. Rotations can be described in weeks, calendar months, or longitudinal experiences that, when summed, equal the required rotation time. Structured experiences can be either a rotation or another identifiable experience such as a didactic series, real or simulated time caring for patients, or the completion of focused educational materials such as readings or modules.

   The set of structured experiences includes those geared toward the execution of a variety of procedures (e.g., airway management) as well as those geared toward gaining competence in the role of team leader in specific conditions (e.g., ST-elevation myocardial infarction (STEMI), stroke) that may be seen by a larger urgent response team.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   Not applicable.

3. How will the proposed requirement or revision impact continuity of patient care?
   Not applicable.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   Not applicable.

5. How will the proposed revision impact other accredited programs?
   Not applicable.

Requirement #: **4.15.a.; 4.15.c.**

Requirement Revision (significant change only):

4.15. Resident Scholarly Activity
Residents must participate in scholarship. **(Core)**

4.15.a. All residents must complete and disseminate a scholarly project. (Core)

4.15.c. ~~At the time of graduation, each resident should demonstrate:~~

- ~~active participation in a research project, or formulation and implementation of an original research project, including funded and non-funded basic science or clinical outcomes research, as well as active participation in an emergency department quality improvement project; or,~~ ~~(Outcome)~~
- ~~presentation of grand rounds, posters, workshops, quality improvement presentations, podium presentations, webinars; or,~~ ~~(Core)~~
- ~~grant leadership, non-peer-reviewed print/electronic resources, articles or publications, book chapters, textbooks, service on professional committees, or serving as a journal reviewer, journal editorial board member, or editor; or,~~ ~~(Outcome)~~
- ~~peer-reviewed publications.~~ ~~(Outcome)~~

1. Describe the Review Committee's rationale for this revision:
   The performance of a scholarly project is an important part of the learning process that the committee believes will ensure a solid foundation for residents in learning to ask important questions, generate new knowledge, expand upon current knowledge, and develop communication skills that allow for the dissemination of this work in the way that most meets the goals of the resident. Residents can participate in any type of scholarship and can disseminate that scholarship in a variety of formats.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   The committee believes the proposed revision clarifies the intended scholarship requirement and will improve resident education through promoting their definitive involvement in a project to the point of completion and dissemination.

3. How will the proposed requirement or revision impact continuity of patient care?
   None anticipated.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   None anticipated.

5. How will the proposed revision impact other accredited programs?

None anticipated.