Introduction:
The first obligation of every person in the United States is mitigation/control of the COVID-19 pandemic. The moral obligation of all physicians during the pandemic is to do their part in the treatment of its victims. The accreditation of programs should be a distant consideration to those obligations but inevitably arises in the minds of residents/fellows, faculty members, and program directors. The ACGME has published guidance for resident/fellow education and training in the face of the pandemic on its website:


https://www.acgme.org/COVID-19

The ACGME statements emphasize that residents should receive proper training in the use of personal protective equipment (PPE), should be appropriately supervised in their clinical activities, and must continue to adhere to ACGME work hour requirements (Common Program Requirements Section VI.F.). The latter is important, even in these most challenging times, because the best available data has documented that exceeding the 80-hour per week limit results in increased risk of patient harm and increased risk of self-harm, such as needle sticks. Transposed to the current pandemic, that self-harm due to exhaustion could result in infection with the virus due to lapses in isolation protocols, the use of PPE, and other mechanisms of self-protection.

Case Logs are not specifically addressed in the general guidance statement and are of major concern to radiology residents, fellows, and program directors. In discussing Case Logs, and particularly Case Log minima, it is important to remember that the ACGME case minima were established for program accreditation. They are used by the Review Committee for Radiology
to determine whether a given program offers a volume and variety of cases sufficient for education of the complement of residents/fellows for which the program is accredited. The ACGME Case Log minima were not designed to be a surrogate for the procedural competence of an individual program graduate and are not used in that manner by the Review Committee.

The COVID-19 pandemic is far beyond the control of programs the ACGME accredits, and will reduce the volume of imaging and the number of interventional procedures performed by the residents/fellows in those programs for the foreseeable future. This communication is provided to help answer some of the questions we have received from diagnostic and interventional radiology residents, subspecialty radiology fellows, and programs about the impact of those reductions.

**Impact on the Individual Resident/Fellow**

ACGME-accredited programs are obligated to graduate only those residents/fellows who have demonstrated the ability to interpret radiology imaging and perform interventional procedures considered essential for the practice of diagnostic and/or interventional radiology. It is up to the program director, with consideration of the recommendations of the program’s Clinical Competence Committee, to assess the diagnostic and procedural competence of an individual resident/fellow as one part of the determination of whether that individual is prepared to enter autonomous practice. A given individual who has not met all case minima may be deemed by the program director to be clinically competent and be allowed to complete the program, as scheduled. Another individual who has exceeded all case minima may not be deemed by the program director to be clinically competent and be required by the program to extend the educational program until competence can be demonstrated. These considerations apply at all times. As a result of the COVID-19 pandemic and its effect on elective imaging and procedures, it is possible some programs will find it necessary to extend the period of residency/fellowship for some individual residents/fellow.

The longer the pandemic impacts elective imaging and procedures, the more residents’/fellows’ periods of residency/fellowship could be extended. Extension of education as a result of the current circumstances must not be viewed as, in any way, reflecting poorly on the affected residents/fellows. It would be a reflection of the program’s obligation to the public, the ACGME, and the residents/fellows themselves, in response to circumstances beyond their control. The ACGME accredits programs, it does not certify individuals. What an extension of education would mean for a given individual in terms of the board certification process can only be answered by the American Board of Radiology (ABR).

**Impact on Programs**

The ACGME and its Review Committees use the standard of substantial compliance, rather than absolute compliance, in making accreditation decisions. Accreditation decisions include the accreditation status of the program but also include the levying of citations and areas for improvement. In making accreditation decisions, the Review Committees thoughtfully consider all available information from and about a program, e.g. Case Logs, Resident/Fellow and Faculty Survey results, and the program Annual Update. Specific to Case Logs, the minima will not be waived by the Review Committee in response to the pandemic. However, the Case Logs of graduates of a program who were on duty during the pandemic (particularly those who were in their ultimate or penultimate years) will be judiciously considered in light of the impact of the pandemic on that program. The program can delineate for the Review Committee how it was affected by the pandemic in the Major Changes and Other Updates section of ADS.
Programs must bear in mind that they have an obligation, not just to the ACGME, but to the public and to their residents/fellows, to graduate only those residents/fellows who they believe are able to autonomously perform all diagnostic and interventional procedures considered essential for the area of practice. A program that graduates residents/fellows who have multiple substantial deficiencies in their Case Logs may be viewed by the Review Committee as not having met that obligation.

Breast Imaging, Nuclear Medicine, and Early Specialization in Interventional Radiology

Breast Imaging
- Residents must complete at least 12 weeks of clinical rotations. Individual programs, at the discretion of the program director, may include telemedicine rotations for senior residents impacted by COVID-19.
- The FDA requires residents to receive at least 60 hours of didactic education; virtual conferences are acceptable.
- The FDA requires supervised interpretation of at least 240 mammograms; senior residents impacted by COVID-19 may interpret already finalized mammograms, in blinded fashion, if needed.

Nuclear Medicine
- Residents must have a minimum of 700 hours of training and supervised work experience. Individual programs, at the discretion of the program director, with concurrence of Authorized User (AU) preceptors, may include telemedicine rotations for senior residents impacted by COVID-19.
- Residents must have a minimum of 80 hours of classroom and laboratory training; the laboratory component requires in-person participation.
- Residents must participate in, under AU preceptor supervision, six cases involving the oral administration of sodium iodide I-131 (three low-dose \( \leq 33 \text{ mCi} \) and three high-dose \( > 33 \text{ mCi} \); low-dose cannot count for high-dose and high-dose cannot count for low-dose). In-person participation is required; two fully participating residents may share the experience. In the rare event that a senior resident cannot fulfill the sodium iodide I-131 therapy requirement during residency due to COVID-19, the Review Committee would allow post-graduate documentation of supervised sodium iodide I-131 administration cases.

Note: The ABR Board of Governors has not met to approve post-graduate I-131 experiences; ABR leadership has agreed in principle the proposal is sound.

Early Specialization in Interventional Radiology (ESIR)
Procedure volumes are expected to be lower due to COVID-19.
- Programs may alter their block schedules to accommodate residents participating in ESIR, provided the number of interventional radiology and interventional radiology-related rotations remain consistent with ESIR guidelines for each resident.
- Some programs may not have sufficient case volume for individual ESIR residents to complete 500 cases during their diagnostic radiology residency. The Review Committee anticipates such residents may enter independent interventional radiology residencies with fewer than 500 cases logged; they must still log a total of at least 1,000 cases by the end of their interventional radiology residency.
For programs in institutions that have declared Stage 3 Pandemic Emergency Status, if ESIR residents are unable to complete the ICU rotation prior to completing the program, these residents can still graduate. Upon completion of the ESIR training in the diagnostic radiology program, the program director must note, on the Verification of ESIR Training for the interventional radiology-independent program director, that the ICU rotation was not completed by the resident due to uncontrollable COVID-19-related circumstances. The receiving interventional radiology-independent program should facilitate this experience for the resident.