Statement on Surgical Pre-Residency Preparatory Courses

The American Board of Surgery, the American College of Surgeons, the Association of Program Directors in Surgery, and the Association for Surgical Education

The following statement on surgical pre-residency preparatory courses has been approved by the American Board of Surgery, the American College of Surgeons, the Association of Program Directors in Surgery, and the Association for Surgical Education.

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The leadership of the surgical community is actively engaged in improving the preparation of incoming residents to assume responsibility and accountability for key elements of care and stewardship. To better prepare for this transition, it is essential that all matriculants to surgery residency successfully complete a preparatory course of blended learning that specifically addresses essential components of quality care and patient safety before the start of their training. A national multi-dimensional curriculum, along with objective assessment tools, has been developed to accelerate readiness, responsibility, and accountability during the transition from medical school to surgery residency. We strongly endorse this effort and encourage medical schools to adopt this or a similar program. We stand ready to assist medical schools and medical students in implementation of this important initiative.

Requiring all matriculants of surgery residencies to successfully complete a multi-dimensional preparatory course before residency should accelerate the speed at which trainees acquire basic clinical and technical skills, and reduce variability in these skill sets among entering residents. This required experience should both enhance patient safety and lessen the slope of the learning curve for entering residents.

The duration of surgical residency in the United States has de facto decreased because of societal, ethical, and regulatory changes during the past several decades. In contrast, there has not been a congruent contraction in the body of medical knowledge or number of procedures that must be learned by a surgery resident before graduation. Therefore, surgical training must become more intentional and efficient to achieve the desired outcomes of well-trained, practice-ready graduates. Having all entering residents complete a standard preparatory course before the onset of residency should improve educational efficiency, as they will begin their residency training having already acquired basic surgical techniques and clinical management skills.

BACKGROUND

There are increasing concerns among surgical residency program directors and faculty that many beginning residents are not adequately prepared for the challenges of patient care and do not possess the requisite technical skills. A review of the medical literature on the topic of medical student education concluded that a major purpose of the final year of medical school should be to facilitate the transition from medical school to residency. To accomplish this, medical school curricula and competency assessments should align with the knowledge and skills required to be successful in residency, a position supported by surgery program directors.

A number of medical schools have designed specific rotations, honors programs, and “boot camps” for the fourth year to better prepare medical students for surgical residency, and an increasing number of publications attest to the benefits of these programs. Most programs have focused on the acquisition of technical skills and many have also emphasized the need to achieve patient management skills critical to addressing common clinical problems encountered by junior surgery residents. Invariably, these efforts have resulted in improvements in personal confidence and task performance. This has translated into graduates of these programs outperforming their resident peers during the first 3 to 6 months of residency.

CURRENT STATUS OF PREPARATORY COURSES

The most comprehensive preparatory courses are based on a modular curriculum with interactive didactic sessions on surgical instruments and procedures; perioperative
patient care; and administrative tasks; along with simulation sessions addressing basic surgical techniques and communication with other health care professionals. Important additional components of these courses include objective assessment of student performance and ongoing course evaluation with modification of curricular modules. The Resident Prep Curriculum developed by the American College of Surgeons, Association of Program Directors in Surgery, and Association for Surgical Education is a national preparatory course anchored by goals and objectives that are explicitly tied to the Accreditation Council on Graduate Medical Education’s first-year resident supervision requirements. This curriculum will be offered at 39 US medical schools in 2014 and 55 institutions have committed to deliver this course in 2015. In addition to this national effort, a number of medical schools and surgery residencies have developed similar in-house programs and simulation skills experiences to teach basic surgical techniques and/or clinical skills to those planning to enter a surgical residency.

IMPLEMENTATION ISSUES
Concerns about mandatory pre-residency preparatory curriculum courses have centered on several issues. Some medical schools might not possess the economic, human, or facility resources necessary to offer a comprehensive program at their institution. Nearly 20% of surgical residents are graduates of international or nonallopathic medical schools and some surgical residency positions might be filled by residents from nonsurgical disciplines. These individuals might not have access to a medical school—based preparatory course. Innovative solutions to these potential barriers, such as development of regional preparatory courses under the auspices of a surgical organization or a consortium of medical schools with pooled resources might meet this challenge. The American College of Surgeons is planning to offer a preparatory course at its Accredited Educational Institutes in the near future. It is also possible that development of a common curriculum for all students entering surgical specialty residencies might allow for economies of scale to overcome obstacles that currently make it difficult for medical schools to establish these programs.

CONCLUSIONS
Medical students who have successfully completed a modular pre-residency preparatory curriculum report increased confidence and an improved sense of preparedness for surgical residency. Surgery residency program directors have confirmed these observations. Students arriving at their graduate medical education program with fundamental clinical and technical skills are able to perform patient care, including procedures, more effectively and safely. These efforts should accelerate the learning process and improve the efficiency of surgical resident education. Although several models of providing this experience might be appropriate, the essential components of a preparatory course before surgery residency include interactive sessions on perioperative patient care, surgical instruments, and procedures; simulation sessions teaching basic surgical techniques and interprofessional communication skills; objective assessments of student performance; and ongoing course evaluation with iterative modification of curricular offerings.

Author Contributions
Study conception and design: American Board of Surgery, American College of Surgeons, Association of Program Directors in Surgery, Association for Surgical Education
Acquisition of data: American Board of Surgery, American College of Surgeons, Association of Program Directors in Surgery
Analysis and interpretation of data: American Board of Surgery, American College of Surgeons, Association of Program Directors in Surgery
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REFERENCES