



American Board of Surgery Statement Regarding Residency Redesign

General surgery training in the United States has a well-established history of producing some of the finest surgeons in the world. Over the last quarter century, however, many factors, including dramatic advances in technology, the 80-hour work week, changes in disease management, a greater focus on quality and safety in surgical outcomes, and an explosion in surgical subspecialization have all had a significant impact on the residency experience in surgery. Several studies have suggested that recent residency graduates are less prepared for independent practice today than in the past (*Mattar et al 2012, Lewis et al 2012, Sandhu et al 2015*). These factors, coupled with a greater focus on competency-based training and assessment in undergraduate medical education and residency training, have reinforced the need to redesign surgical education in this country.

These issues have been brought to the forefront before, most notably in 2005 (*American Surgical Association Blue Ribbon Committee, Debas et al 2005*). While several discussions regarding surgical training redesign have occurred within the American Board of Surgery (ABS) over the last 15 years, until now they have not achieved consensus as to the changes needed. The ABS directors, representing the breadth of general surgery, agree that now is the time to move forward. The challenges are significant and the issues are complex, but can be overcome with deliberate thought, a collaborative mindset, and a clearly defined process for managing such an undertaking.

Over the last 24 months, the ABS has begun the process of listening to stakeholder perspectives, gaining greater insights into innovative surgical education models (such as those of the Royal College of Physicians and Surgeons of Canada), and establishing the momentum to move such an endeavor forward. Several steps have already been taken that provide foundational elements for our redesign effort (Appendix 1).

We currently envision a framework built upon a general surgical “Core,” followed by additional training in general surgery or a surgical subspecialty (“Plus” years), as is currently done in existing Early Specialization Programs. This structure would have the following characteristics:

- *Learner-dependent* education, rather than educator-dependent
- *Competency-based* assessment tools, i.e., not relying solely on number of cases to measure competency
- *A structure such as Entrustable Professional Activities (EPAs)*, in which modules are embedded with defined actions to gauge progression and completion
- *Enhanced surgical experience* with greater early operative exposure, both in numbers and complexity
- *Faculty development* to enrich teaching and assessment of technical skills and competence both in and out of the operating room
- *Curricular and evaluation standards* in the Plus years of training, including in the surgical specialties, to build collaboratively a seamless path from the Core into these years

The “Core Plus” framework, previously recommended by the ASA’s Blue Ribbon Committee in 2005, provides a structure to establish general surgery as an equivalent “fellowship” in the Plus years, institute the concept of modular training within the Core, afford greater autonomy during the Plus years, and foster greater overall efficiency in training (especially for those tracking into surgical subspecialties).

Fundamental to this structure is that no individual would be considered fully trained in general surgery or a surgical specialty without having completed one or more years of terminal training following the Core experience.

The American Board of Surgery does not intend to act alone in this effort. The process for this educational re-engineering will require input and collaboration from all major stakeholders in American surgery. The ABS intends to dedicate internal resources to this initiative, in addition to identifying external resources that can contribute to this significant and multi-year project.

The essential elements to successfully redesign surgical residency training around a competency-based framework are already available. With the implementation of the SCORE® (Surgical Council on Resident Education) Curriculum as our national general surgery residency curriculum, we can now build on this foundation with competency-based training and assessment tools to enhance the effectiveness and efficiency of surgical training.

The American Board of Surgery, in partnership with our major stakeholders, is committed to moving this effort forward and making this our highest priority. Our most important constituency, the American public, deserves the finest surgeons and the highest level of surgical care in the world. We are committed to continuing this lasting legacy of excellence and of improving our surgical education methods to meet the needs of our patients, both today and tomorrow.

Appendix 1

1. The establishment of the SCORE Curriculum, a standardized national curriculum for general surgery
2. Aggressive grassroots effort to establish medical school boot camps in preparation for general surgery residency
3. Increased curricular requirements, including Advanced Cardiovascular Life Support (ACLS), Advanced Trauma Life Support® (ATLS®), Fundamentals of Laparoscopic Surgery™ (FLS), and Fundamentals of Endoscopic Surgery™ (FES), as well as a 250-case requirement in the first two years of training
4. The establishment of defined milestones in general surgery residency
5. New policies to promote flexibility during residency, in addition to Early Specialization Programs (ESPs), to allow individual customization of training pathways
6. New policy to permit admissibility to the General Surgery Qualifying Examination after four years of residency training

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