

Gearing up for milestones in surgery: Will simulation play a role?

Aimee K. Gardner, PhD,^a Daniel J. Scott, MD,^a James C. Hebert, MD,^b John D. Mellinger, MD,^c
Ariel Frey-Vogel, MD, MAT,^d Raymond P. Ten Eyck, MD,^c Bradley R. Davis, MD,^f
Lelan F. Sillin, III, MD,^g and Ajit K. Sachdeva, MD,^h Dallas, TX, Burlington, VT, Springfield and Chicago,
IL, Boston and Burlington, MA, and Dayton and Cincinnati, OH

Background. The Consortium of American College of Surgeons–Accredited Education Institutes was created to promote patient safety through the use of simulation, develop new education and technologies, identify best practices, and encourage research and collaboration.

Methods. During the 7th Annual Meeting of the Consortium, leaders from a variety of specialties discussed how simulation is playing a role in the assessment of resident performance within the context of the Milestones of the Accreditation Council for Graduate Medical Education as part of the Next Accreditation System.

Conclusion. This report presents experiences from several viewpoints and supports the utility of simulation for this purpose. (*Surgery* 2015;158:1421-7.)

From the UT Southwestern Medical Center,^a Dallas, TX; the University of Vermont College of Medicine, Residency Review Committee for Surgery,^b Burlington, VT; the Southern Illinois University School of Medicine,^c Springfield, IL; the Massachusetts General Hospital for Children,^d Boston, MA; Wright State University,^e Dayton, OH; the University of Cincinnati,^f Cincinnati, OH; the Lahey Center for Professional Development and Simulation,^g Burlington, MA; and the American College of Surgeons,^h Chicago, IL

ACCURATE DOCUMENTATION and evaluation of resident competencies has always been a challenge for Program Directors. The introduction of the Next Accreditation System (NAS) by the Accreditation Council for Graduate Medical Education (ACGME) defines specific milestones regarding resident knowledge, skills, and other competencies along a continuum. The granularity of these milestones makes it likely that new assessment methods will need to be developed to inform faculty decisions regarding resident progression along the identified targets. Identification of the most practical, informative, and cost-effective methods to assess and document trainee improvement throughout residency is critical.

Simulation should play a pivotal role in satisfying these requirements, but little is currently

known about the application of simulation to the milestones in surgery. Residency programs may be able to use simulated scenarios strategically to evaluate performance that would be too impractical or burdensome through traditional methods of assessment. The American College of Surgeons Program for Accreditation of Education Institutes (ACS-AEI) aims to advance simulation-based, surgical education and training to address national imperatives. During the 7th Annual Meeting of the Consortium of ACS-AEIs in March 2014, a multidisciplinary panel was assembled to discuss how simulation may be used to address effectively the new milestone requirements defined by the American Board of Surgery and the Residency Review Committee for Surgery (RRC). This article summarizes this panel discussion, beginning with an overview of the new requirements, followed by challenges for Program Directors and examples of how surgical and nonsurgical specialties are using simulation to evaluate and document achievement of various milestones.

OVERVIEW FROM THE RRC PERSPECTIVE

The ACGME launched recently the NAS, which focuses on educational outcomes rather than adherence to highly structured rules and processes; the goal was to better prepare physicians for practice in the future. The reasons for this

Presented at the Seventh Annual Meeting of the Consortium of ACS-accredited Education Institutes, March 21–22, 2014, Chicago, Illinois.

Accepted for publication March 13, 2015.

Reprint requests: Aimee K. Gardner, PhD, Assistant Professor of Surgery, Associate Director of Education, Department of Surgery, UT Southwestern Medical Center, 5323 Harry Hines Blvd, Dallas, TX 75390. E-mail: aimee.gardner@utsouthwestern.edu.

0039-6060/\$ - see front matter

© 2015 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.surg.2015.03.039>

change are many and have been articulated previously.¹

A cornerstone of NAS is the measurement and reporting of specialty-specific, educational milestones that track the development of individual residents along a continuum within the framework of 6 competency domains (medical knowledge, patient care and procedural skills, interpersonal and communication skills, professionalism, practice-based learning and improvement, and systems-based practice).¹ The development of milestones was undertaken under the auspices of both the ACGME and American Board of Medical Specialties; this process involved a wide range of individuals, including representatives from the specialty boards, RRCs, ACGME, program directors, and residents. Unique milestones and reporting templates are now available for all specialties, and all programs are expected to begin using and reporting milestone evaluation beginning in July 2014.²

Residency training programs are required to have a Clinical Competence Committee (CCC) that will provide oversight for the assessment of milestone achievement for each trainee.³ To foster innovation and creativity, the ACGME has provided programs with sufficient freedom regarding the best way to approach the process of milestone assessment.⁴ For milestones to improve the assessment of trainee skills and to ensure competency of the graduating resident, these milestones must be linked to valid and reliable assessment tools. Best practices regarding how to achieve comprehensive and standardized assessments of surgery residents to inform milestone assessment have yet to be developed, but educators agree that simulation should play a pivotal role.^{5,6} The development of surgical simulators and their increased acceptance within the surgical community not only allow for effective training outside of the clinical environment, but also permit standardized and objective assessment of performance.⁶⁻⁸ Thus, performance in simulated settings can yield valuable information for the CCC. Simulation can also play an important role in remediation and for faculty development within the context of assessment of milestones. Incorporation of simulation into the mainstream of all aspects of medical and surgical education needs to continue at an accelerated pace.

CHALLENGES FOR PROGRAM DIRECTORS

As with any major change in education, residency programs may experience challenges in addressing specific milestones; however, simulation can help

to alleviate some of these challenges. This article presents an overview of the stated goals of the milestones as outlined by the ACGME, along with a brief summary of how simulation needs to be integral to achieving various goals.

An expressed goal of the milestones was that they would “guide curriculum development of the residency.” The growing number of national mandates, quality imperatives, compliance requirements within hospitals and health care systems, electronic record requirements, pressures on teaching faculty, and restricted resident work hours has impacted resident training. Negative impact has resulted with regard to junior resident operative experiences⁹ and in resident and faculty confidence in the ability of trainees to perform operations deemed essential for the general surgeon.^{10,11} Simulation-based training can help to supplement clinical experiences by providing standardized training to perform key procedures and acquire requisite skills. Specific, measurable areas of practice that define a profession are referred to as “entrustable professional activities” (EPAs).¹² Identification of EPAs within surgery is valuable, because they may be used to drive curriculum development and to inform levels of supervision. For example, inserting a central venous catheter may be identified as an EPA for surgery residents, and specific simulation-based curricula may be developed to address training and assessment needs. As learners acquire the necessary knowledge and skills relating to insertion of a central venous catheter and managing potential complications, the level of required supervision should decrease from direct oversight to “entrustment,” confirming that the learner is deemed skilled to perform the professional duty without oversight.¹³ Thus, incorporating simulation EPAs in residency training can ensure that trainees are exposed uniformly to specific training standards and techniques and are able to practice their skills outside of patient care settings until ready to perform the procedure or carry out a task in real settings.

Another stated goal of the milestones is that they will “support better assessment practices.” Considerable evidence shows that faculty members spend relatively little time observing directly resident behaviors,¹⁴ form their impressions of broader resident performance by globalizing their limited observations of clinical performance and professionalism,¹⁵ produce less meaningful global evaluations after a substantial time delay after direct observation,¹⁶ and lack insight into the dependence of their ratings on rater-dependent

Download English Version:

<https://daneshyari.com/en/article/4306781>

Download Persian Version:

<https://daneshyari.com/article/4306781>

[Daneshyari.com](https://daneshyari.com)