The Development of the Colon and Rectal Surgery Milestones

Charles B. Whitlow, MD, Chair, on behalf of the Colon and Rectal Surgery Milestone Committee

Introduction

The educational Milestones have been developed for use in the Next Accreditation System (NAS). Their purpose is to provide objective evidence of progression along a trajectory of novice to master and support the individual program's decision to graduate a given resident. Additionally, assessment of Milestone data may be useful in determining areas of improvement for the program, and will be 1 of the data elements on program effectiveness used in the NAS.

The Milestone Committee for Colon and Rectal Surgery sought to outline progress of technical and clinical expertise in diseases that would distinguish a specialist colon and rectal surgeon from a general surgeon.

Milestone Development History

The Colon and Rectal Surgery Milestone Committee was made up of members of the Residency Review Committee (RRC) for Colon and Rectal Surgery, several of whom were also on the American Board of Colon and Rectal Surgery, and representatives from the Association of Program Directors in Colon and Rectal Surgery (BOX). All committee members had extensive experience in educating colon and rectal surgery and general surgery residents.

The members of the committee identified a number of unique features about colon and rectal surgery residencies relative to other surgical residencies. First, in order to enter a colon and rectal surgery residency a resident must have already completed a general surgery residency; this requires a minimum of 5 years of training. Second, colon and rectal surgery residencies are 1 year in length, making the use of time-dependent Milestone levels impractical. Last, because residents who enter a colon and rectal surgery residency have already completed a core residency and could enter into independent practice, they necessarily should already have attained Milestone levels acceptable for graduation in the nonspecialty-specific Milestones (professionalism, interpersonal and communication skills, practice-based learning and improvement, and systems-based practice).

Given the above, the committee decided on an approach focused on the expertise that differentiates a specialist colon and rectal surgeon from a general surgeon. Specifically, this would include the technical performance of complex colorectal and anorectal procedures, and the requisite knowledge for comprehensive management of colorectal neoplasia, inflammatory bowel disease, and anorectal diseases. The list of these subcompetencies was not intended to be all encompassing, rather it was designed to include broad categories of disease and represent a sufficient sample in order to assess the trainee's proficiency in the specialty. The framework for this approach was presented to the Colon and Rectal Surgery Milestone Advisory Committee, which comprised leaders of the American Board of Colon and Rectal Surgery and the American Society of Colon and Rectal Surgery. The input from the advisory committee was used to fashion the final Milestone template.

BOX Members of the Colon and Rectal Surgery Milestone Working Group and Advisory Committee

Colon and Rectal Surgery Milestone Working Group

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Colon and Rectal Surgery Milestone Advisory Committee

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Judith Trudel, MD, MSc, MHPE, Colon and Rectal Surgery Associates
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General Features of the Specialty Milestones

The Milestones for medical knowledge and patient care were titled under the same disease categories: benign perianal and anal disease processes, colonic neoplasia, Crohn disease, large bowel obstruction, rectal cancer, rectal prolapse, rectovaginal fistula, and pelvic floor disease. Additionally, there is a medical knowledge Milestone for anatomy and physiology. The Milestone committee then developed gradations of expertise, with levels 1 and 2 corresponding to the understanding and abilities of a resident

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who has completed a general surgery residency. Level 4 represents the level of proficiency that should be attained by residents graduating from a colon and rectal surgery residency. Level 3 would be in between these 2 points, and Level 5 describes the experienced colon and rectal surgeon who has attained mastery level practice of the specialty.

Based on the approach endorsed during the development of the specialty-specific Milestones, the committee decided to take a more global approach to the nonspecialty-specific Milestones. Templates were developed that include important elements of each of the competencies. The levels correspond to relative degrees that the defined behaviors are demonstrated, with Level 4 corresponding to the expected performance of a physician graduating from a colon and rectal surgery residency.

Establishing Milestone Validity, Utility, and Practicality

To establish initial information on Milestone feasibility and utility, the Colon and Rectal Surgery Milestones were piloted early by members of the Milestone committee who were involved in residency programs. A second pilot with a follow-up survey was performed. Based on these pilot studies, the Milestones underwent added revisions, and subsequently were approved by the working group and the advisory committee.

Envisioned Practical Uses in Evaluating Residents

The committee anticipates that residents will be evaluated using the Milestones during the first quarter of their training. This initial assessment would identify areas of knowledge and technical skill to be targeted during the residency. During the subsequent 2 quarters progress across all domains would be further assessed. Due to the short duration of a colon and rectal surgery residency, for residents who fail to progress, the assess-remediate-reassess cycle is quite time-compressed. The assessment in the final quarter would be for the purpose of documenting competency for entry into unsupervised practice. Alternatively, failure to attain this level of training would be grounds for ongoing training beyond the standard 1-year period.

Recommendations for Clinical Competency Committee Composition and Functioning

Ideally, Clinical Competency Committees (CCCs) would function as an independent assessment of resident competence separate from that of the residency program director. Realistically, many colon and rectal surgery residencies have a small number of faculty physicians, and in order to have at least 3 members, the program director will need to participate on the CCC. The CCC will use the assessment tools it deems appropriate to assess the residents, and determine where a resident fits on the continuum of levels for each Milestone. The overall assessment of competence to enter unsupervised practice is then made based on a synthesis of the recommendations of the CCC and the program director's individual judgment.

Conclusion

The Colon and Rectal Surgery Milestones will advance assessment of trainees on dimensions of performance highly relevant to unsupervised practice in the specialty, and will provide data on programs' educational effectiveness for use in the accreditation process in the NAS. While efforts to date have established the initial feasibility and validity of the Milestones, colon and rectal surgery residency programs are encouraged to use the Milestones during the 2013–2014 academic year and provide the committee with additional feedback on their practicality and utility.

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