



LETTER FROM THE EDITOR

Achieving Competence in Endoscopy

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Upper endoscopy (EGD) and colonoscopy represent the 2 most commonly performed procedures in gastroenterology in the United States, with nearly 11 million colonoscopies and over 6 million EGDs performed annually.¹ Not surprisingly, gastroenterology fellowship programs not only prioritize training fellows in these 2 procedures but also are tasked with ensuring endoscopic competence in their fellows. The aim of this editorial is to provide structure and suggestions to fellows embarking on their journey toward competence in endoscopy.

MOVING AWAY FROM YOUR PROCEDURE NUMBERS

Traditionally, competence in endoscopy was assumed after completion of a recommended number of procedures. Last revised in 2007, the gastroenterology fellowship core curriculum (<http://gi.org/wp-content/uploads/2011/07/fellows-GICoreCurriculum.pdf>) recommended completion of 130 EGDs and 140 colonoscopies before competence could be assessed. In 2017, the American Society for Gastrointestinal Endoscopy (ASGE) increased the minimum number of colonoscopies to 270 before competence could be assessed. Although minimum standards in terms of procedure volume are important in guiding fellowships to provide adequate hands-on exposure for their fellows, studies have consistently demonstrated a wide variation in trainee learning curves in endoscopic procedures, depending on which marker for competence was examined. For example, using a 90% cecal intubation rate as a marker of competence, Sedlack et al found in the United States that the “average” trainee achieved competence at 250 colonoscopies, whereas in the United Kingdom, Ward et al found that at the UK-recommended threshold of 200 colonoscopies, only 40% of trainees achieved competence.^{2,3} Alternatively, Spier et al found that independent completion in $\geq 90\%$ of colonoscopies occurred in all fellows after 500 colonoscopies.⁴ This number further increases when incorporating standard therapeutic interventions, such as polypectomy, where independent snare polypectomy rates of $> 95\%$ have been found in fellows after 700 colonoscopies.⁵ In line with this, the introduction of the Next Accreditation System in 2014 by the Accreditation Council for Graduate Medical Education has shifted the focus away from using procedure volume alone as a surrogate for competence and to incorporate milestones, which can be documented by fellowship programs.⁶

HOW TO ASSESS PERFORMANCE

The incorporation of milestones, or concrete tasks and skills that correspond to a level of training, provides for objective-based evaluations that can be used by both fellows and fellowships to measure the progress of trainees. To facilitate the tracking of milestones, several instruments have been validated for EDG and colonoscopy. The ASGE currently endorses the Assessment of Competency in Endoscopy tool, which assesses both technical and cognitive skills on 1–4 scoring system (6 individual skills for EGD, 12 individual skills for colonoscopy), of which the feasibility of using in a nation-wide system to provide real-time learning curves has been demonstrated.^{7,8} For therapeutic maneuvers such as polypectomy, the Direct Observation of Polypectomy Skills has been developed and is now used in the certification process for colonoscopy in the UK.⁹ More recently, the cold snare polypectomy assessment tool, which contains 12 items, was validated, offering a more practical evaluation tool than the 33-item Direct Observation of Polypectomy Skill.¹⁰ Most importantly, fellows and fellowships now have access to validated assessment tools that can provide concrete measurement of trainee endoscopy skills in EGD and colonoscopy, which can be used not only to document trainee performance but also to create individually tailored education plans to help every trainee achieve competence.

WAYS TO IMPROVE PERFORMANCE

Several learning interventions have been studied in an attempt to accelerate fellow learning curves in endoscopy. One area of focus has been the use of simulators, which provide a virtual hands-on learning environment. Grover et al demonstrated that formal didactics in combination with simulator training led to improved performance early on in the colonoscopy learning experience with a progressive learning approach (gradually tackling on more and more difficult tasks) affording the largest advantage.^{11,12} Haycock compared simulator training with traditional patient-based colonoscopy training, finding that simulator-based training led to higher cecal intubation rates, shorter procedure duration, and less patient discomfort.^{13,14} These studies appear to suggest that simulator-based training can be of value to fellows, particularly early on in the learning process.

Feedback represents a critical aspect of endoscopy training that is too often mishandled or omitted.¹⁵ Defined as giving “specific information about the performance of a trainee in relation to well-defined standards with the intent to improve the trainee’s performance,” feedback presents a valuable opportunity to help fellows improve their endoscopy skills.¹⁶ Dilly et al presented a practical approach to giving feedback, recommending (i) establishing goals with the trainer for each procedure or endoscopy block, (ii) minimizing concurrent feedback (given during the procedure) to reduce the cognitive load on the trainee and allow for problem-solving, and (iii) providing most of the feedback after the procedure has been completed.¹⁵ In terms of the actual feedback, one method is the ask-tell-ask approach where (i) trainees provide a self-assessment, (ii) trainers tell trainees what they observed in relation to the self-assessment, followed by (iii) trainees create a plan for improvement.¹⁷ With feedback, it remains important that the feedback be specific and constructive, allowing the trainee to self-reflect while coming up with potential solutions. Although some trainers will naturally provide this type of feedback, it remains imperative that fellows take initiative in their learning. Vague feedback such as “strong work” or “great job” should not be accepted, rather, fellows should be active in requesting, receiving, and incorporating constructive feedback as a valuable learning opportunity.

QUALITY INDICATORS

While in the midst of endoscopy training, particularly during the early portion of fellowship, it becomes easy for fellows to forget what they are aiming for. Fellows often become focused on banding the spurting varices or getting into the terminal ileum. With the increasing focus on quality in healthcare, however, it remains crucial for fellows to be cognizant of what they will be measured on as independent practitioners. To that end, quality indicators provide guidelines for the comparison of individual performance with defined benchmarks. The American College of Gastroenterology and ASGE have provided joint documents detailing pre-, intra-, and post-procedure quality indicators for EGD and colonoscopy.^{18,19} Because performing the technical aspects of endoscopy becomes more like second nature, fellows should prioritize becoming familiar with these quality indicators as not only will they be assessed using these quality indicators as attendings but the ultimate goal of their training should be to deliver high-quality care.

TAKE-HOME POINTS

1. Procedure numbers are important, but should not be the focus of your endoscopy training.
2. Ask your attendings and program directors to incorporate validated assessment tools such as the Assessment of Competency in Endoscopy Tool or cold snare polypectomy assessment tool to receive objective assessment in specific skills for EGD and colonoscopy.
3. If you have simulators available, use them—they can be particularly helpful in the beginning of your training.
4. Ask for specific and constructive feedback—do not settle for vague or absent feedback.
5. As you progress in your training, become familiar with quality indicators—the goal of your training is to provide high-quality care as an attending!

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