

# Senior Surgical Resident Confidence in Performing Flexible Endoscopy: What Can We Do Differently?

Annabelle L. Fonseca, MD, Vikram Reddy, MD, PhD, Peter S. Yoo, MD, Richard J. Gusberg, MD, and Walter E. Longo, MD

Department of Surgery, Yale University School of Medicine, New Haven, Connecticut

**INTRODUCTION:** The American Board of Surgery endoscopy requirements for general surgery training are evolving. In 2006, the Residency Review Committee in Surgery increased the total number of endoscopy cases required before completion of general surgery residency training. This requirement is set to change further, given the new Flexible Endoscopic Curriculum that would be a requirement for applicants graduating surgical training during or after the 2017 to 2018 academic year. Given these changes, our goal was to evaluate the confidence of senior surgical residents performing flexible endoscopy.

**METHODS:** A survey was developed and sent to general surgery residents nationally, querying them regarding demographics and program-specific characteristics; additionally they were asked to rate their confidence level in performing flexible upper endoscopy and colonoscopy on a Likert scale of 1 to 5. We then compared those residents who indicated confidence (Likert scale 4-5) to those who did not (Likert scale 1-3). For the purpose of this study, only senior (postgraduate year 4 and 5) general surgery residents were assessed.

**RESULTS:** We received 1176 responses from senior surgical residents: 56% of these were postgraduate year 5 residents, 65% male, 68% from University Programs, and 56% from programs associated with a Veteran's Affairs Hospital; 33% were from programs in the Northeast, 29% in the South, 24% in the Midwest, and 14% in the West; 75% were going on to additional fellowship training after the completion of residency; 42% indicated that they would go into academic practice and 32% into private practice; 66.7% reported confidence performing upper endoscopy and 52.7% reported confidence performing colonoscopy. Male gender, overall operative volume, and graduating from a

medium-sized program or program in the South were associated with increased confidence performing flexible endoscopy.

**CONCLUSIONS:** A large percentage of senior residents do not report confidence in performing flexible endoscopy. Although increasing the number of cases required for graduation has likely helped improve the training of residents in endoscopy, additional improvements in training are required. The Flexible Endoscopic Curriculum helps standardize the curriculum and demonstrate that the graduating resident has the fundamental knowledge and skills required in the performance of endoscopy. Simulation training and dedicated endoscopic rotations during the course of residency training could help improve endoscopy training and proficiency for future graduating residents. (J Surg Ed 73:311-316. © 2015 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

**KEY WORDS:** endoscopy, confidence performing endoscopy, surgeon confidence, surgeon confidence

**COMPETENCIES:** Patient Care, Practice-Based Learning and Improvement, System-Based Practice

## INTRODUCTION

In 2006, the Residency Review Committee in Surgery increased the total number of endoscopy cases required before completion of general surgery residency training; the new requirements would mandate that surgical residents graduating in June 2009 perform a minimum of 35 upper endoscopies and 50 colonoscopies before graduation. Residency programs have made several changes to incorporate additional endoscopy training into their curriculums, including the institution of dedicated endoscopy rotations, affiliated training with a medical gastroenterology service, and an presence of an endoscopic skills training laboratory.<sup>1</sup>

*Correspondence:* Inquiries to Annabelle L. Fonseca, MD, Department of Surgery, Yale University School of Medicine, FMB 107, 333 Cedar Street, New Haven, CT 06510; fax: (203) 737-5209; e-mail: annabelle.fonseca@yale.edu

Although there has been a substantial increase in resident endoscopic case volume over the past decade,<sup>2,3</sup> especially since the increased case volume mandated by the American Board of Surgery (ABS), there have also been questions raised as to whether this is an adequate benchmark. The American Society for Gastrointestinal Endoscopy (ASGE), the American Association for the Study of Liver Diseases, the American College of Gastroenterology, and the American Gastroenterological Association released a position paper stating that the ABS procedure number requirements for endoscopy are inadequate to receive training, competency or both.<sup>4</sup>

Several authors have attempted to study the adequate number of endoscopies that need to be performed to ensure competency; however, these numbers vary from 50 to 500 cases.<sup>5-8</sup> There is a lack of consensus in the literature; this is possibly because numbers can be used only as a rudimentary surrogate for proficiency, and may not adequately assess true competency. The ABS, in conjunction with the Society of American Gastrointestinal and Endoscopic Surgeons, developed a Flexible Endoscopic Curriculum to assess skill and knowledge in endoscopy to address some of the concerns regarding variability of training, and it would be a requirement for general surgery residents graduating in the 2017 to 2018 academic year.

Surgical training is also evolving on many fronts, the increasing technological advances requiring current graduating residents to learn skills in laparoscopic and endovascular surgery in addition to endoscopic skills, all of which must be done in a shorter time period, given the work hour restrictions. Given these changes, we sought to evaluate senior surgical resident confidence at performing flexible upper and lower endoscopy.

## METHODS

We developed and distributed a survey to general surgery residents nationally to assess their confidence at performing a number of procedures. This survey was developed based on a comprehensive multistage method; qualitative methods including in-depth interviews were used in the first stage to develop a question pool, subsequent to which the survey questions were subjected to the 4 stages of pretesting (review by knowledgeable colleagues, cognitive interviewing, pilot testing, and a final check), as detailed by Dillman.<sup>9</sup> Other findings of this survey have been recently published. The study was approved by the Yale University Institutional Review Board and Human Investigation Committee.

We electronically distributed the survey to 249 programs nationwide. Individual program directors (PDs) and program coordinators of general surgery programs were contacted with a brief explanation of the study and its purpose, and they were asked to distribute the survey to their

categorical and nondesignated preliminary residents. All programs complied with this request. A total of 7120 surveys were thus distributed, of which 2204 surveys were distributed to postgraduate year (PGY) 4 and 5 residents.

Residents were queried regarding demographics (age, gender, and PGY level), program characteristics, estimated case volume, and professional goals (dedicated research time, future career goals regarding fellowship training, and practice plans). We also asked residents to rate their confidence in performing flexible upper endoscopy and colonoscopy on a Likert scale, among other questions. Additionally, we asked respondents whether they felt confident that they would graduate with the skills required to be able to practice independently after residency training.

Program characteristics we queried were type of program (University, University Affiliated, or Community Program), program size (small program graduating 1-3 residents/year, medium-sized program graduating 4-5 residents/year, or large program graduating 6 or more residents/year), presence of a simulation laboratory, affiliation to a Veterans Affairs Hospital, and geographic location. Respondents rated their confidence at performing flexible endoscopy on a Likert scale ranging from 1 (not confident) to 5 (extremely confident). For the purpose of statistical analysis, resident responses were divided into "confident" (4 and 5 on the Likert scale; confident and extremely confident) and "not confident" (1, 2, and 3 on the Likert scale; not confident, minimally confident, and neutral). We compared the demographics, professional goals, and program-specific as well as other variables of residents who reported being confident in performing flexible endoscopy with those who did not. Univariable analysis was performed with the *t*-test and one-way analysis of variance for continuous data and Chi-square test for categorical data. Multivariable analysis was then performed to identify independently predictive variables; all variables with  $p < 0.2$  on univariable analysis were entered into a backward stepwise logistic regression model.

## RESULTS

The study population included the PGY4 and PGY5 respondents to the survey ( $n = 1176$ , response rate: 53%). Although the survey was distributed to and completed by residents in every year of training, we focused on senior surgical residents (PGY4 and PGY5) for the purpose of this study. As the survey was distributed at the very end of the academic year, its responses are indicative of graduating chief residents and the upcoming chief residents. Of these, 523 (45%) were PGY4 residents and 653 (55%) were PGY5 residents; 67.4% ( $N = 793$ ) reported being confident in performing upper endoscopy (69% of PGY5 and 67% of PGY4 residents); 52.7% ( $N = 620$ ) reported being confident performing colonoscopy (56% of PGY5 residents and 49% of PGY4 residents).

Download English Version:

<https://daneshyari.com/en/article/4297824>

Download Persian Version:

<https://daneshyari.com/article/4297824>

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