

ADVANCES IN ENDOSCOPY

Current Developments in Diagnostic and Therapeutic Endoscopy

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Nonphysician Performance of Endoscopy



Lukejohn W. Day, MD
 Assistant Professor of Medicine
 UCSF School of Medicine
 Associate CMO for Specialty Care and Diagnostics
 San Francisco General Hospital and Trauma Center
 San Francisco, California

G&H Is there a demand for nonphysicians to perform endoscopic procedures?

LD Across the world, but especially in the United States, there has been a dramatic rise in the demand for endoscopic procedures over the past 30 years. This rising demand is for both colorectal cancer screening and diagnostic procedures. At the same time, there has not been a corresponding increase in the number of providers who can perform these procedures. For example, the number of gastroenterologists being trained has remained steady and is expected to remain the same for the next several years. Consequently, there is a growing gap between the supply of and demand for endoscopic procedures, which thereby requires the health care community to develop innovative solutions to address this gap. One such innovative solution may be the use of nonphysicians to perform endoscopic procedures.

G&H Currently, how common is nonphysician performance of endoscopy?

LD It is clear from the literature that in the United Kingdom nonphysicians routinely perform colorectal cancer screening with flexible sigmoidoscopy and that a number of institutions across the United States follow the same practice. However, the number of US hospitals and ambulatory endoscopy centers that have nonphysicians performing colonoscopy and/or upper endoscopy is much less, although the exact number is unknown. This highlights the need for better and more robust tracking and monitoring of nonphysicians performing endoscopy in the United States.

G&H Specifically, which endoscopic procedures are being performed by nonphysicians?

LD The type of endoscopic procedures performed by nonphysicians has evolved over the years. Nonphysicians have been performing endoscopic procedures since the 1970s, and the first procedure performed was flexible sigmoidoscopy. More recently, this practice has expanded; nonphysicians have been performing colonoscopy and upper endoscopy, although in more limited settings. At the moment, there are no reports of nonphysicians performing advanced endoscopic procedures, such as endoscopic retrograde cholangiopancreatography or endoscopic ultrasound.

G&H What training or certification is required for nonphysicians to perform endoscopic procedures?

LD Presently, there are no national guidelines for training or certifying nonphysicians to perform endoscopic procedures. Training and credentialing have been left mostly to individual institutions. Most centers follow the rubric used for gastroenterology fellowship training, and there are data to support this method. For example, at the San Francisco General Hospital and Trauma Center, nonphysicians are required to attend didactic sessions that review indications for endoscopy, types of therapy associated with specific procedures, and common adverse events associated with endoscopic procedures. In addition, nonphysicians must review approved videos from national US gastroenterology societies that focus on training techniques for colonoscopy and upper

endoscopy. Nonphysicians also experience direct observation of 150 procedures for both colonoscopy and upper endoscopy. Training is also required for nonphysicians on how to document findings and how to provide recommendations after performing an endoscopy. Built into this system is an auditing piece. Once nonphysicians are independently performing endoscopy, our Gastroenterology Quality Committee audits them quarterly, specifically by observing them performing procedures, reviewing endoscopy reports, tracking and monitoring procedure quality indicators, and investigating all adverse events. More importantly, it is essential that if an institution wants to have nonphysicians perform endoscopy, a clear and well-documented training curriculum needs to be developed. Hopefully, as more data on this issue become available, national guidelines can eventually be established for both training and credentialing.

G&H What are the advantages of having nonphysicians perform endoscopy?

LD There are a number of advantages to having nonphysicians perform endoscopy. One of the largest sources of endoscopic demand is based on indications for colorectal cancer screening and surveillance. Both colonoscopy and flexible sigmoidoscopy are accepted and recommended modalities for colorectal cancer screening, yet with the aging population, it is estimated that the number of endoscopic procedures that need to be performed to meet this demand far exceeds the supply of available gastroenterologists. This imbalance may lead to impaired access, delayed diagnoses, higher health care costs, and overall poorer patient satisfaction. Nonphysicians are a suitable adjunctive to physicians performing simple endoscopic procedures to meet this rising demand. Expanding the role of nonphysicians into endoscopy would not limit the role of gastroenterologists, but rather allow gastroenterologists to focus their attention on more complex and demanding procedures and cases.

G&H What were the findings of your recent study in this area?

LD My colleagues and I performed a systematic review and meta-analysis of the literature on nonphysicians performing endoscopy. We found that nonphysicians safely perform endoscopic procedures with quality similar to that of physicians, especially with respect to flexible sigmoidoscopy for colon cancer screening. For example, we found no differences between nonphysicians and physicians in terms of achieving quality indicators in flexible sigmoidoscopy (ie, adenoma detection rate, polyp detection rate, and adverse events). Far fewer data were report-

ed for nonphysicians performing colonoscopy and upper endoscopy, but according to the data available, nonphysicians perform both procedures within the accepted national benchmarks for quality measures used in endoscopy (eg, procedure completion and adverse events). Our data support the continued discussion on incorporating and augmenting gastroenterology practices by expanding the role of nonphysicians to assist with the high volume of endoscopic procedures.

G&H Based on your study, what recommendations do you have regarding nonphysician endoscopy?

LD Our study provides evidence that nonphysicians can perform endoscopic procedures safely and within acceptable guidelines with respect to a number of quality indicators. Clearly, more studies are needed in this area, specifically within the realm of nonphysicians performing colonoscopy and upper endoscopy. Importantly, continued research is required to determine optimal teaching methods and patient acceptance of this practice and to begin the development of standard guidelines for the scope of practice for nonphysicians performing endoscopy.

G&H How will the Affordable Care Act affect nonphysician performance of endoscopic services?

LD Changes in health care will have a tremendous impact on nonphysicians performing endoscopy. As more Americans have improved access to health care, we will likely see a continued increase in the number of endoscopic procedures that are requested by primary care providers as well as patients. This will only further exacerbate the supply-and-demand imbalance for endoscopic procedures. This is the time when we need to be more thoughtful about how to address the growing demand for endoscopic procedures and how to meet the needs of all of our patients to make sure that they receive timely care. I believe that using nonphysicians is a perfect solution to this problem.

G&H What are the economic implications of nonphysician endoscopy?

LD It is crucial to perform a cost-benefit analysis of nonphysicians performing endoscopy. This is an area that requires further study, especially in the United States. Data from the United Kingdom several years ago found that physicians were slightly more cost-effective than nurses at performing flexible sigmoidoscopy and upper endoscopy. However, no studies have been conducted in the United

States regarding the costs of nonphysicians performing endoscopy, and such research is needed.

G&H What barriers are there to wider involvement of nonphysicians providing endoscopic services?

LD There are several barriers. The first barrier to overcome is provider buy-in. For nonphysicians to perform endoscopy, there has to be a rigorous educational program as well as a supervisory component in place. This requires the commitment of both the gastroenterologists and the institution. Also, some providers may not be entirely accepting of nonphysicians performing endoscopy. However, a number of academic centers and health care organizations have adopted the use of nonphysicians to perform simple endoscopic procedures with successful outcomes and patient experiences. The use of nonphysicians in traditional physician roles is not a new concept in medicine. A large number of medical fields have adopted the use of nonphysicians for clinical practice. For example, the use of certified nurse anesthetists to deliver anesthesia care has been prevalent for over a century. Nurse anesthetists have consistently demonstrated efficacy and safety with high provider satisfaction and acceptance.

A second barrier to address is whether patients will accept nonphysicians performing endoscopy. The available data with regard to patient satisfaction are sparse in this area; however, limited reports illustrate that patients are willing to undergo a repeat procedure by a nonphysician and that no difference exists between nonphysicians and physicians in terms of patient preference for who performs their procedure. In our study, my colleagues and I found that there was high reported patient satisfaction with respect to nonphysicians performing flexible sigmoidoscopy, colonoscopy, and upper endoscopy, and in many cases, there were greater patient satisfaction and lower pain scores with nonphysicians performing endos-

copy. These 2 potential barriers should be kept in the back of our minds; if we can overcome them, then I think that we can further spread the use of nonphysician endoscopy across the United States.

G&H Has the use of surgeons performing endoscopic procedures influenced the growth of nonphysician activity in this area?

LD I believe that there has been a decline in surgeons performing endoscopy across the United States in recent years. Most of the cases in which surgeons perform endoscopy are in rural areas where there might not be a gastroenterologist available. Even with surgeons performing endoscopy, there is still a large disparity in the supply of and demand for endoscopy. A surgeon's time has many demands, such as surgeries and clinic work, so his or her availability to perform endoscopy is even more limited than that of a gastroenterologist or nonphysician. Therefore, I do not think that surgeons will be able to address the growing demand for endoscopic procedures in the United States. Surgeons can certainly be an adjunctive solution to this problem, but other solutions, such as nonphysicians, are needed.

Dr Day has no relevant conflicts of interest to disclose.

Suggested Reading

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