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ESOPHAGUS (J CLARKE AND N AHUJA, SECTION EDITORS)

Tips for the Budding Esophagologist

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Abstract

Purpose of Review The specialty of gastroenterology has evolved such that there are now multiple areas of "superspecialty" within the field. Interest in "esophagology" has expanded as options for medical therapy, advanced optics, motility testing and reflux monitoring, and minimally invasive and endoscopic therapeutics have grown. For a multitude of reasons, academic and private practices alike are looking to expand in this growing superspecialty.

Recent Findings Several articles offer criteria for competency in manometry.

Summary This article discusses in detail multiple options for developing skills in diagnosis and treatment of esophageal disease with "tips for the budding esophagologist."

Keywords High-resolution manometry · Esophagus · Reflux monitoring · Advanced training

Introduction

The field of esophagology has exploded over the past decade with vast innovations in both diagnostic and treatment options for esophageal diseases. Advances such as high-resolution manometry (HRM), wireless pH analysis, radiofrequency ablation, endoscopic antireflux procedures, and peroral endoscopic myotomy (POEM)—one could go on and on—have radically changed the field. More and more gastroenterology fellows are interested in making esophageal disease their focus of interest, and more practices (both academic and private) are recruiting for expertise in esophageal disease.

So what does one really need to master to be considered an "esophagologist"? The first question to answer is "What is an esophagologist?" Esophagology is the study of the structure, physiology, and diseases of the esophagus. An esophagologist would therefore by inference be an individual who has mastered all facets of this definition. Historically, expertise in manometry and reflux monitoring coupled with a clinical focus on benign disease, with perhaps a focused research interest, represented esophagology. Today's esophagologist should have added expertise in basic and advanced endoscopic techniques (see below) in addition to motility disorders and other benign diseases.

In years past, most of what one practiced, especially endoscopic techniques, were cultivated during residency and fellowship. The opportunity to gain a significant breadth of knowledge outside of those training years was often very challenging to accomplish. That is no longer the case. There now exists an abundance of opportunities to gain exposure and competency in novel endoscopic techniques well out of the scope of what is available in primary training. National and regional societies, academic medical centers, and industry now offer a myriad of sophisticated training experiences. Societies such as the ASGE (asge.org), ACG (gi.org), AGA (gastro.org), AFS (American Foregut Society, americanforegutsociety.org), and ANMS (American Neurogastroenterology and Motility Society, motilitysociety.org) offer in-depth, hands-on training opportunities on simulators, ex vivo and in vivo animal models, and individualized training in motility testing. The ASGE has built a state-of-the-art freestanding facility for workshops dedicated to advancing skill sets outside of a physician's home institution. These training sessions range from brief overviews to multiday hands-on training with competency testing and subsequent Society certification. Institutions have configured their endoscopy laboratories to run live feeds locally, nationally, and internationally to share expertise in the performance of novel endoscopic techniques.

This article is part of the Topical Collection on *Esophagus*

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In an era of ever tighter regulations of working relationships between physicians and industry, there is a move toward expansion of resources, albeit through highly regulated and transparent channels, including industry-sponsored educational grants. This funding mechanism can be used to help achieve novice and advanced training in esophageal motility and reflux monitoring techniques as well as surgical and advanced endoscopic techniques (e.g., medtronic.com, diversatekhealthcare.com, and endogastricsolutions.com).

Training to become a gastroenterologist with specialization in esophagology now has multiple iterations. For simplicity's sake, we have broken them down into the following tracks: the classical pathway (classical path), the advanced fellowship pathway (advanced path), and the post-fellowship continuing medical education pathway (CME path).

The classical path is one in which the skills necessary to be considered a esophagologist are obtained during a standard 3-year fellowship. This is quickly becoming a rare breed with the increased complexity of skills needing proficiency and the rapidly surfacing "advanced fellowship" year offered in multiple institutions (see "advanced path") which can syphon away the exposure a fellow may get during a general gastroenterology fellowship. In addition, there is an increasing push to define competency criteria, such as the ANMS recommendations of third-tier training during an advanced year for those aspiring to a focused career in motility. However, this type of track may still be possible in certain institutions where a highly motivated and focused fellow could carve out enough time, especially in their later fellowship years, to gain experience in all but the most advanced endoscopic esophageal techniques. Elective time during the fellowship would need to be concentrated in the esophageal laboratory, radiology rotations, and accruing experience in advanced esophageal procedures. Specific skill sets not available at the fellow's home institution may be acquired through rotations at nearby institutions or with the aid of travel grants. For example, ANMS offers 1-month training opportunities at multiple institutions in which one can focus on esophageal motility. ASGE periodically offers Master Class training, STAR certificate programs, webinars, and on-site advanced training in EMR, antireflux therapy, and POEM (asge.org). Attendance at national meetings is vital to provide networking opportunities and broad exposure to state-of-the-art research forums, "Meet the Professor" breakfasts/lunches, live courses, and hands-on training with masters in the field. The annual medical and surgical esophageal courses offered through the Foregut Disease Foundation and the annual meeting of the American Foregut Society are likewise valuable multiday courses dedicated to esophageal/foregut disease management.

The advanced path is an option for those general gastroenterology fellows who have decided to pursue an additional year of training. There are several institutions from which to consider, and an application should be submitted within the second or third year of fellowship. Your fellowship director and/or esophageal disease mentor should play an active role in facilitating these opportunities. Ideally, the training would offer an opportunity to be trained in the esophageal physiology laboratory, consultative service, and in the endoscopy suite. A recent consensus paper suggested a minimum of 50 esophageal motility studies be read annually to maintain competence. Though society guidelines have not concretely defined the numbers of esophageal functional studies which one should read to achieve competency, and variable rates of achieving competency likely exist, we believe that training in a laboratory that performs 10 times this number annually is ideal to move toward becoming an expert [1•, 2•]. Advanced endoscopic training should at a minimum be obtained in the management of complicated esophageal strictures, ablation technologies, mucosal and submucosal resection, and closure of defects. If available, it would be ideal to obtain competency in performance of endoscopic antireflux procedures, POEM, and bariatric procedures.

As for the physician considering expanding their practice who is well beyond completion of their fellowship, the CME pathway can offer an opportunity to concentrate on skill sets to complement their general GI background. Typically, this individual is interested in specific avenues to differentiate themselves from their colleagues, such as interpretation of manometry studies, Barrett's ablative technologies, and endoscopic antireflux procedures. Although honing one's skills once beyond the formal training years may be more challenging to orchestrate, it is certainly achievable. One can pair with a mentor from another institution, perhaps with a small financial subsidy with which to be trained. The mentee can arrange a formal observership and, based upon distance, may either arrange a single prolonged visitation or set up a curriculum which includes more frequent visits over an extended period of time. Apprentice-type training has been shown to produce competency in motility. Training opportunities in the basics of the esophageal functional laboratory are offered by industry through weekend courses and in conjunction with local and national societies [3•]. These courses are tailored to both the beginner and advanced practitioners and are invaluable to those seeking to add skills and credentials. Following initial training, a longitudinal relationship can be built which offers opportunity to seek counsel on cases which are challenging to interpret. For formal training in endoscopic techniques, the mentee may require an observership and attendance at hands-on courses; based upon the technique, mentees may also be able to arrange a trained representative from industry (and/or a physician proctor) to observe the performance of procedures in the mentee's home institution. It is prudent that, if the technique being learned is novel to the home institution, training also should be arranged for the endoscopy nursing staff and technicians. Another important consideration is that, based upon the upfront capital expense for the hardware or software necessary to perform the procedure, the CME pathway may require the development and acceptance of an institutional business plan. This practical consideration

requires careful attention to potential patient volume, as it may take several years and considerable outreach to build out a program prior to breaking even.

With the above details in mind, we would offer the following tips for the budding esophagologist:

- If you are certain in residency that you wish to pursue a career in esophagology, choose a gastroenterology fellowship that demonstrates faculty expertise in esophagology, previous graduates who have pursued careers in esophagology, a strong multidisciplinary relationship between the institution's gastroenterology and foregut surgery divisions, and an ability to be trained in essential basic and advanced esophageal techniques.
- Develop your personal statement to make clear your interest and ask your letter writers to support this.
- Early in fellowship, identify oneself as committed to a career in esophagology, and plot a course through your fellowship with that goal in mind. Establish mentors with expertise in the field (this may require separate clinical and research mentors). Arrange for elective time to allow adequate exposure to training in the esophageal physiology laboratory, radiology, and advanced procedures. If a full year of elective time is not possible, advocate as best as you can to get as much time for concentration as possible.
- If an advanced fellowship pathway is pursued, clarify clearly in your interview process which competency skills can be anticipated to be achieved. Be wary of overlaps in procedural training with advanced endoscopy fellow(s) who may be present in the same program.
- If you are considering beginning practice in an institution or region as the sole esophageal expert following graduation, ensure that you understand all equipment and supplies needed. Build in to your contract negotiation an understanding that the equipment is purchased *prior* to starting, as a considerable delay can be very detrimental to the establishment of a new program.
- Individuals can market themselves as possessing esophageal expertise with limited advanced skills (motility and reflux monitoring), but opportunities in practice may be limited.
- Join ACG, AGA, ANMS, and ASGE as a trainee member, and use every opportunity offered to learn and network.
- Join the new American Foregut Society (americanforegutsociety.org), a group dedicated to advancing the field of esophagology and collaboration between gastroenterologists and surgeons, and attend their annual meeting.
- Consider using meeting time to attend the annual Medical and Surgical Aspects of Esophageal and Foregut Disease (foregutdiseasefoundation.org), a boutique course with a capped attendance.
- If international travel and exposure is of interest, consider attending the ISDE or OESO meetings.
- For those gastroenterologists seeking to advance their skills in esophagology in the post-fellowship years, it is essential to be strategic in defining which skill sets will be both practical and financially feasible for your practice. One should be wary of obtaining training in an advanced esophageal therapeutic technique which will have significant upfront costs (due to hardware and software) and low patient volume. Do your homework.
- Align yourself with a colleague to whom you can reach out for advice on challenging cases. Laboratory studies can be easily transmitted for a secondary review when interpretation is difficult.
- If you pursue training (and practice) in advanced esophageal endoscopic techniques, ensure that there is adequate surgical backup if complications arise.
- Whether in the classical, advanced, or CME pathway, keep a prospective case log for manometry and reflux monitoring interpretation as well as advanced endoscopic cases. This will aid in initial or subsequent credentialing and prepare you for maintaining competence.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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