

# ADVANCES IN ENDOSCOPY

Current Developments in Diagnostic and Therapeutic Endoscopy

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## Advanced Endoscopic Training



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### G&H Why do established endoscopists seek further training?

**TD** Established endoscopists seek further training because technology continually advances. New interventions with endoscopes as well as other new tools and techniques that were not available during the endoscopist's training program are continually being developed, particularly if the endoscopist was trained more than 5–10 years ago. Most of these technologies and techniques are variations on the basic principles of endoscopic training, but they do include some advancements that require additional learning. Some of this consists of didactic learning, lectures, and observation, and some of this requires hands-on learning (ie, observing a demonstration of the procedure in a simulated environment and then performing the procedure using the techniques that were taught).

### G&H Which procedures that require specialized training are most in demand?

**TD** Over the past few years, endoscopic techniques with the most demand for training include placement of stents in the esophagus, stomach, or colon to open up strictures or obstructions (because new types of stents are being developed as technology evolves); new techniques for disrupting and removing stone material from bile ducts in the biliary tree; and new techniques for removing larger amounts of tissue, including polyps or masses from the stomach or colon (such as endoscopic mucosal resection [EMR] or endoscopic submucosal dissection [ESD]). However, these are just a few of the techniques for which endoscopists may seek further training.

### G&H Should all endoscopists undergo training for advanced procedures?

**TD** Endoscopists who are well trained to perform their existing spectrum of endoscopic skills may not choose to adopt new technologies or perform new procedures. If an endoscopist possesses the innate skills and has the desire to perform new procedures, then additional training is recommended.

### G&H How important is credentialing? Is credentialing currently required for every endoscopist performing an advanced endoscopic procedure?

**TD** Credentialing or privileging requirements are generally at the discretion of the facility where the services are provided. Endoscopists should be required to show evidence of adequate training, competence, and safe performance of all endoscopic procedures for which privileges are granted.

### G&H What resources are currently available to facilitate advanced endoscopic training (eg, mentoring, workshops, or meetings)?

**TD** In some cases, an endoscopist in a clinical practice setting can return to an academic center to obtain experience with a new procedure. However, these opportunities are usually limited because academic centers have training commitments to their own trainees and fellows.

Courses for new procedures are usually offered by gastrointestinal societies such as the American Society for Gastrointestinal Endoscopy (ASGE). These courses include didactic education and training as well as hands-on training, typically with animal models (such as por-

cine stomachs or bovine colons) to learn and practice new techniques. In addition, the manufacturer of a new instrument or technology may provide training courses in its own facilities with its own resources.

**G&H** Are there any other training facilities for new endoscopic procedures?

**TD** The ASGE is currently building a training facility, with member and industry support, that is expected to open in May 2013, with its first course scheduled for July 2013. This facility, the Institute for Training and Technology (IT&T), will be a major advancement, providing hands-on endoscopic training on a much larger scale than that currently being offered in a smaller version. For example, the new facility will have 16 workstations for hands-on training with a significant expansion of available training models to include computer simulators, animal organ models, or human cadaver models. Satellite and broadband technologies will allow worldwide transmission of education and training programs to and from the IT&T. US endoscopists will be able to view demonstrations of techniques currently being developed and performed in other countries. Specifically, training courses will be available for the full range of gastrointestinal endoscopy, including stent placement, tissue removal, EMR, ESD, endoscopic retrograde cholangiopancreatography, natural orifice transluminal endoscopy, and other procedures; in addition, the IT&T is well suited and available for training of other procedural specialists such as general surgeons, orthopedists, and neurosurgeons.

**G&H** In addition to this facility, what training facilities are offered by other societies or organizations?

**TD** To my knowledge, there are only a few similar facilities offered by large academic training centers and perhaps some commercial industries.

**G&H** Has there been any research on the effectiveness of training (particularly simulators or computer-based programs) for learning endoscopic procedures?

**TD** Studies to date show that computer simulators currently have only limited benefit when used early in training. They are helpful very early in endoscopic training to familiarize the trainee with techniques and maneuvers

and to advance early skills. I expect that computer simulator technology will continue to evolve and be more useful in advanced training in the future.

**G&H** What do you see as the major challenges facing endoscopic training?

**TD** One challenge is generating sufficient research funding for the development and advancement of new endoscopic techniques and technologies. Budgets are getting tighter and tighter, and resources are often quite limited in these areas. It is important to keep endoscopy moving forward, as new technologies and techniques may prove to be safer and more cost-efficient. For example, effective endoscopic interventions for refractory gastroesophageal reflux or endoscopic bariatric procedures for weight reduction could be safe, effective, and lower cost than current surgical options. However, for each new technique that evolves, many endoscopists would have to be trained, and I am not sure that we currently have the full capacity to do that. The new ASGE IT&T will move us much closer to that capacity.

**G&H** What do you foresee as the future/next steps for the advancement of endoscopic training?

**TD** The future will include better computer simulators and more realistic training models. In addition, the ASGE will focus on developing tools for the assessment of skills and competency during endoscopic training.

### Suggested Reading

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