

Endoscopy in Canada: Proceedings of the National Roundtable

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This 2014 roundtable discussion, hosted by the Canadian Association of General Surgeons, brought together general surgeons and gastroenterologists with expertise in endoscopy from across Canada to discuss the state of endoscopy in Canada. The focus of the roundtable was the evaluation of the competence of general surgeons at endoscopy, reviewing quality assurance parameters for high-quality endoscopy, measuring and assessing surgical resident preparedness for endoscopy practice, evaluating credentialing programs for the endosuite and predicting the future of endoscopic services in Canada. The roundtable noted several important observations. There exist inadequacies in both resident training and the assessment of competency in endoscopy. From these observations, several collaborative recommendations were then stated. These included the need for a formal and standardized system of both accreditation and training endoscopists.

Key Words: Credentialing; Endoscopy; Quality assurance parameters; Resident training

This 2014 roundtable discussion, hosted by the Canadian Association of General Surgeons (CAGS) and chaired by Dr Elijah Dixon, president of CAGS, brought together general surgeons and gastroenterologists with expertise in endoscopy from across Canada to discuss the state of endoscopy in Canada. The major themes for the roundtable discussion were defining competence in endoscopy and identifying the current major issues facing endoscopists in Canada. The goals of the roundtable included the following:

- Review the current patterns of practice for endoscopy in Canada, including urban and rural areas.
- Review how general surgeons are currently being trained in endoscopy.
- Review what guidelines regarding endoscopy in Canada currently exist.
- Review the role of endoscopy in the 'community' general surgeon practice.
- Understand the role general surgeons play in the provision of endoscopic services in Canada now and in the future.
- Identify issues that may impair the ability of general surgeons to provide endoscopic services in Canada.
- Strike an endoscopy taskforce and identify either a chair or two co-chairs who will develop a plan of action for the future to help general surgeons provide high-quality endoscopic services throughout Canada in a collaborative fashion with their gastroenterologist colleagues.

L'endoscopie au Canada : les délibérations de la table ronde nationale

Une table ronde, organisée en 2014 par l'Association canadienne des chirurgiens généraux, a réuni les chirurgiens généraux et les gastroentérologues ayant des compétences en endoscopie du Canada entier afin de discuter du statut de l'endoscopie au Canada. Cette table ronde visait à évaluer les compétences des chirurgiens généraux en endoscopie, l'examen des paramètres de contrôle de la qualité pour garantir des endoscopies de qualité, la mesure et l'évaluation de la préparation des résidents en chirurgie à effectuer des endoscopies, l'évaluation des programmes d'agrément à l'endosuite et l'avenir des services endoscopiques au Canada. La table ronde a fait ressortir plusieurs observations importantes. Il y a des inadéquations dans la formation des résidents et l'évaluation des compétences en endoscopie. Plusieurs recommandations consensuelles sont ressorties de ces observations, y compris un système officiel et standardisé d'agrément et de formation des endoscopistes.

ENDOSCOPY IN CANADA AND CURRENT ISSUES FOR THE GENERAL SURGEON

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General surgeons perform approximately 50% of the colonoscopies in Canada (Figure 1) (1). The remainder of the distribution of endoscopy services is provided, in large part, by gastroenterologists, but also by other specialists including general internists and family physicians.

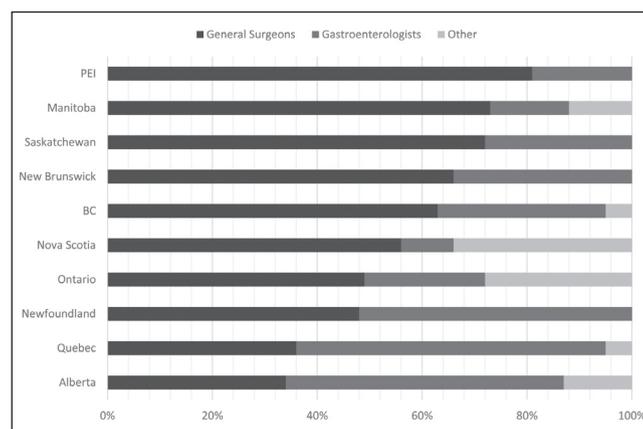


Figure 1) Provincial division of labour for the delivery of colonoscopy. BC British Columbia; PEI Prince Edward Island. Adapted with permission from reference 1

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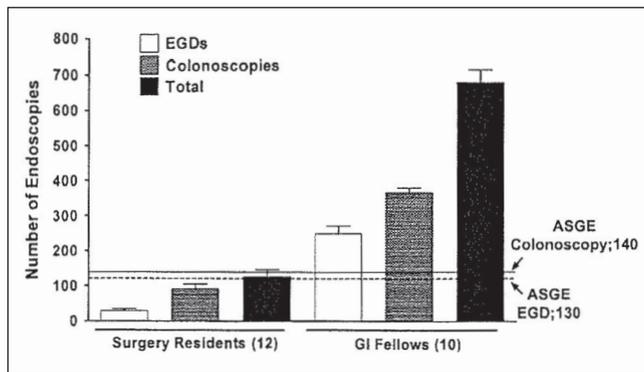


Figure 2) Gastroenterology (GI) fellows versus surgical residents on achieving minimum numbers. ASGE American Society for Gastrointestinal Endoscopy; EGD Esophagogastroduodenoscopy. Reproduced with permission from reference 2

The suggested definition of competency in colonoscopy is defined as a cecal intubation rate (CIR) >90%; however, there are many other measures of competence including adenoma detection rate (ADR), sedation usage, withdrawal time, interval colorectal cancer detection rates and surveillance recommendations. Although it has been widely debated whether absolute procedural numbers alone equate to adequate training in endoscopy, measuring the competency of trainees from both general surgery and gastroenterology residency training programs ultimately becomes more of a numbers game.

While no Royal College of Physicians and Surgeons of Canada minimum figures exist for the number of endoscopic procedures performed, the guidelines established by the American Society for Gastrointestinal Endoscopy (ASGE) recommend a minimum of 130 endoscopies and 140 colonoscopies (2) (Figure 2). Using that mark as a threshold, there is evidence to suggest that surgical residents consistently fail to meet these most basic requirements, while gastroenterology fellows easily achieve significantly higher numbers than the stated threshold (2). In fact, even this minimum threshold has been shown to be far too low – Spier et al (3) showed that after 140 colonoscopies, no gastroenterology fellow achieved a CIR >90% (Figure 3). Rather, it required 500 colonoscopies before all of the fellows achieved this competency standard. Therefore, the question this poses is, are general surgeons sufficiently competent to provide endoscopy services?

How this difference in Canadian training programs translates into practice is debatable. A review of the Canadian literature reveals lack of consensus on the issue, with some studies reporting no difference in missed colorectal neoplasm rates among specialties (4), and others showing that nonsurgeons/nongastroenterologists performing endoscopy to be an independent risk factor for new or missed colorectal cancers (5,6). Still others report that colonoscopy performed by nongastroenterologists (including surgeons) is independently associated with subsequent incident colorectal cancer rates (7). Other studies have reported that surgeons have higher rates of interval cancers, recommend colonoscopy at inappropriately short intervals, and are more likely to require the assistance of and costs associated with anesthesiologists for colonoscopy compared with gastroenterologists (8-10).

There remain many questions moving forward in the discussion of competency training and endoscopy in Canada. How and who should be assessing the qualitative and quantitative measures of competence including CIRs and ADRs, sedation usage, withdrawal times, interval colorectal cancer detection rates and surveillance advice times? Should Canada implement a group similar to the Joint Advisory Group on Gastrointestinal Endoscopy (JAG) established in the United Kingdom (UK)? JAG sets standards for individual endoscopists in colonoscopy training, and in quality assurance of both the endoscopy units and of the training courses. Ultimately, opening discussion forums, such as this retreat, among experts who provide endoscopic services will lead to these questions being answered.

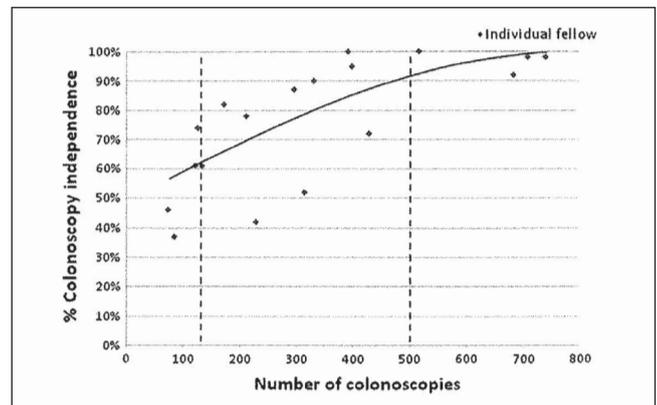


Figure 3) Number of colonoscopies required for minimum standard of competency. Reproduced with permission from reference 3

QUALITY OF COLONOSCOPY: EVIDENCE AND THE CANCER CARE ONTARIO PERSPECTIVE

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Cancer Care Ontario recently released a report entitled, 'Guidelines for Colonoscopy Quality Assurance in Ontario', with the objective of providing the basis for a quality-assurance program for all colonoscopy procedures in Ontario (11). This was an evidence-based review conducted by the Program in Evidence-Based Care, focusing on providing recommendations for three key aspects of colonoscopy: training and maintenance of competency for endoscopists; institutional quality-assurance parameters and performance indicators; and auditable outcomes for colonoscopy.

Training and maintenance of competency

The guidelines recommend minimum training periods for credentialing in endoscopy based on guidance for credentialing in endoscopy, as recommended by the Canadian Association of Gastroenterology. For gastroenterologists, a formal subspecialty training program (≥2 years) must be completed for credentialing, while for other physicians, notably surgical residents, at least six months of technical training and knowledge acquisition in colonoscopy is recommended. These training periods were selected as the minimum believed to be required to successfully achieve three vital parameters: ≥85% CIR; ≥300 colonoscopies; and cognitive proficiency in aspects of the procedure (knowledge of the indications, contraindications and surveillance recommendations). However, the training period and volume criteria alone cannot ensure competence, demonstrated proficiency in the cognitive aspects of colonoscopy and in the technical aspects of colonoscopy (eg, cecal intubation) is required.

To maintain competency, a minimum of 200 colonoscopies per year are then recommended, with a minimum CIR of 95% in patients with adequate bowel preparation and no obstructive lesions. The evidence supporting this recommendation stems from reports that low-volume endoscopists have higher complication rates and may have higher rates of missed colorectal cancers (6,8,12-14). Additional endoscopic training is recommended for physicians who have been away from practice for three years or who have performed <6 months of endoscopy in the past five years (15).

Institutional recommendations

The guideline lists quality assurance parameters for patient assessment before the procedure, infection control, periprocedural monitoring with conscious sedation, resuscitation capability and acceptable endoscopy quality.

Performance indicators and auditable outcomes

A distinction is drawn in the report between quality indicators, where sufficient evidence exists to recommend targets, and auditable

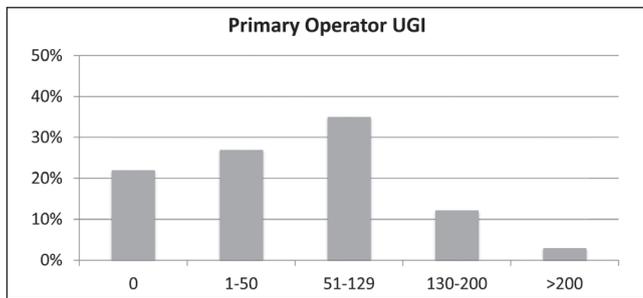


Figure 4) Volume of upper gastrointestinal (UGI) procedures performed by Canadian surgical residents across all years of training. Adapted with permission from the Canadian Association of General Surgeons Residency Committee Survey

outcomes, where there is insufficient evidence to recommend targets; however, monitoring should still be performed.

The three quality indicators included are CIR, bleeding rates post-polypectomy and perforation rates. The targeted values are: CIR $\geq 90\%$ unadjusted (for bowel preparation, indication, strictures, previous colonic surgery or severe colitis); or $\geq 95\%$ adjusted, postpolypectomy bleeding rate < 1 per 100 colonoscopies with polypectomy and perforation rate < 1 per 1000 overall.

The four recommended auditable outcomes included are ADR, polypectomy rate, bowel preparation, withdrawal time and postcolonoscopy cancer detection rates. Setting targets for these parameters in Ontario was not believed to be appropriate because there was insufficient evidence and/or because further auditing of the local experience was required to establish appropriate context-specific targets. For example, ADR and PR have been shown to be highly variable in the literature, making setting a specific target challenging (16-18). Withdrawal time (19) was not recommended as an auditable outcome because it was believed to inconsistently reflect high-quality endoscopy and because there were other more robust quality indicators/auditable outcomes available.

ENDOSCOPY IN CANADA: THE GENERAL SURGERY RESIDENT PERSPECTIVE

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The CAGS Residents Committee, with the support of the CAGS Executive and Education Committees, assessed resident experience in endoscopy training in Canadian general surgery training programs. An online survey was distributed to all program directors at English-speaking residency programs. The goal was to characterize current endoscopy curricula, training, supervision, support, competence and perception of readiness for practice. One hundred fifty-six of 463 (34%) Canadian general surgery residents, from all English-speaking programs, participated in the study. There was approximately equal representation across residency years postgraduate year (PGY) 1 through PGY5/6.

The majority (93%) of respondents reported that their program encompassed a formal endoscopy rotation. The curriculum itself varied, consisting of either a formal gastroenterology or endoscopy block (24%) versus longitudinal training (33%), or a combination of the two (31%). The length of the formal endoscopy training in Canada varied among the programs: 12 weeks (37%), eight weeks (40%) and four weeks (17%). Most often, PGY2 (66%) was the clinical year in which the formal gastroenterology rotation occurred.

Across all years, 84% of applicants failed to meet the minimum requirement set forth by the ASGE for upper gastrointestinal (UGI) procedural numbers. Twenty-two percent of respondents have yet to complete a single UGI endoscopy as the primary operator, 27% completed one to 50, 35% completed between 51 and 129, 12% completed between 130 and 200, and only 3% completed > 200 (Figure 4).

Only 22% of respondents met the minimum criteria set forth by the ASGE for lower gastrointestinal (LGI) procedural numbers. Almost

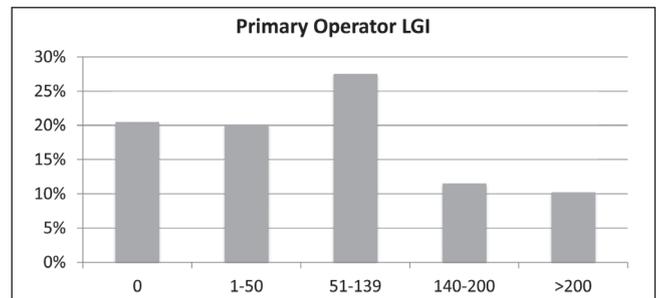


Figure 5) Volume of lower gastrointestinal (LGI) procedures performed by Canadian surgical residents across all years of training. Adapted with permission from the Canadian Association of General Surgeons Residency Committee Survey

one-quarter (21%) of respondents had yet to complete a single LGI endoscopy as the primary operator, 20% completed between one and 50, 28% completed 51 to 139, 12% completed 140 to 200, and 10% completed > 200 (Figure 5).

Graduating residents ($n=26$) were also polled specifically regarding their comfort with endoscopy quality indicators and procedures. The overwhelming majority (97% to 100%) of graduating residents were comfortable with the cognitive components of endoscopy including indications, obtaining consent and sedation administration. Most (88% to 100%) graduates reported being prepared for basic UGI endoscopy tasks such as UGI endoscopy to the second part of the duodenum, biopsies and synoptic reporting. However, more advanced therapeutic procedures, such as variceal banding, esophageal stent insertion, esophageal dilation and endoscopic retrograde cholangiopancreatography were outside the 'comfort zone' of 58% to 92% of graduates. With respect to colonoscopy, the overwhelming majority of graduating residents were prepared to perform basic motor skills independently, including reaching the cecum 85% of the time (81%), completing a screening colonoscopy in ≤ 30 min (88%) and a withdrawal time of > 6 min (96%). Similarly, 81% to 100% of residents stated being comfortable with detecting polyps or other pathology, obtaining biopsies, tattooing lesions, using flexible or rigid sigmoidoscopy, and synoptic reporting of LGI endoscopy.

However, graduating residents were not confident with their skills in emergent procedures such as foreign body extraction and management of acute gastrointestinal bleed; 4% to 50% of graduates were comfortable only with back-up support available. Finally, 39% of graduating residents believed that the endoscopy training they received as residents had not prepared them for their planned surgical practice.

This study was limited by its 34% participation rate, subjective responses and underestimation of procedure volumes throughout an entire general surgery residency. However, it highlights the variability of current endoscopy training within general surgery residency programs and raises the important point that graduating residents appear to feel underprepared for independent practice even though they appear to be comfortable with basic UGI and LGI skills. Increasing emphasis should be placed on competency-based training, credentialing requirements and quality indicators. A standardized approach to endoscopy training across Canadian general surgery residency programs is needed.

MEASURING COMPETENCE IN FLEXIBLE ENDOSCOPY

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There are several work-based assessment and simulation tools that can be used to measure performance in endoscopy: The Global Assessment of Gastrointestinal Endoscopic Skills (GAGES), Direct Observation of Procedural Skills (DOPS), the Mayo Colonoscopy Skills Assessment Tool (MCSAT) and Assessment of Competency in Endoscopy (ACE).

GAGES, now a part of Fundamentals of Endoscopic Surgery (FES) Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

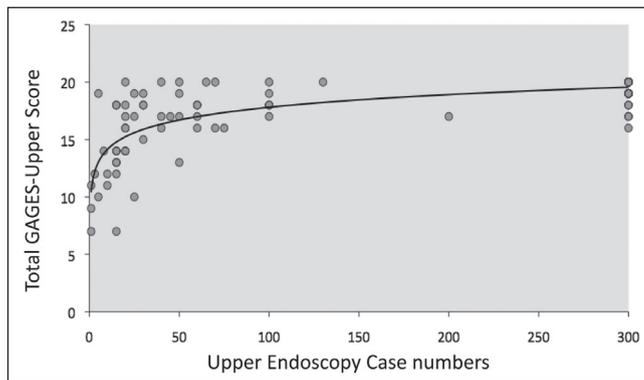


Figure 6) Using the Global Assessment of Gastrointestinal Endoscopic Skills (GAGES) to assess proficiency at upper gastrointestinal endoscopy. Reproduced with permission from reference 21

task force, stems from a multicentre, multidisciplinary trial aimed to develop tools for evaluating basic flexible endoscopic skills and to demonstrate their reliability and validity (20). The fundamental skills required for flexible endoscopy were identified and then separated into two global assessments: GAGES Upper Endoscopy (GAGES-UE) and GAGES Colonoscopy (GAGES-C). GAGES-UE is divided into five categories: intubation of the esophagus; scope navigation; ability to maintain a clear endoscopic field; instrumentation; and quality of the examination. GAGES-C is also divided into five categories: scope navigation; use of strategies; ability to maintain a clear endoscopic field; instrumentation; and quality of examination (20).

There are two important outcomes that emerged from this trial. First, both GAGES tools have excellent inter-rater reliability between observers and attending surgeons, implying that attending surgeons and gastroenterologists can complete the assessments without the need for an observer. Second, GAGES has the ability to differentiate between novice and experienced endoscopists, and can incorporate the experience of the operator into the assessment. When using the GAGES score to determine competency, it appears that proficiency in basic endoscopy can be achieved in approximately 50 UGI endoscopies and between 75 and 100 colonoscopies (21) (Figures 6 and 7).

DOPS is the assessment tool used in the UK, required for trainees to apply for certification by the JAG (22). This tool moves away from a numbers-based experience toward a more structured approach based on competence. The DOPS assessment is broken down into four major categories: assessment; consent; communication, safety and sedation; endoscopic skills during insertion and withdrawal; and diagnostic and therapeutic ability (22). The significant drawbacks of the assessment tool were that it was difficult to evaluate the degree of case difficulty appropriately and, interestingly, DOPS was negatively correlated with number of procedures and, thus, more procedures undertaken equated to poorer scores on formal tests, which raises concern as to its validity as an assessment of competency tool.

MCSAT separates endoscopy into its core motor and cognitive skill elements in a bedside clinical competency assessment (23). It consists of 14 survey items, five of which assess core competencies including hands-on participation, colonoscope advancement, loop reduction, mucosal visualization and therapeutic manoeuvres. In addition, overall motor skills were graded, along with the depth of advancement. Cognitive skills were also evaluated through six survey parameters: indications, sedation, pain management, landmark recognition, tool selection and pathology identification (23). Scores in the MCSAT reached the literature-accepted minimum competency levels at approximately 275 colonoscopies per trainee, with improvement being evident up to 400 procedures (23). The limitation of the MCSAT are that only gastroenterologists, with unclear rater training at a single centre reviewed it, thereby precluding its widespread reproducibility and validation.

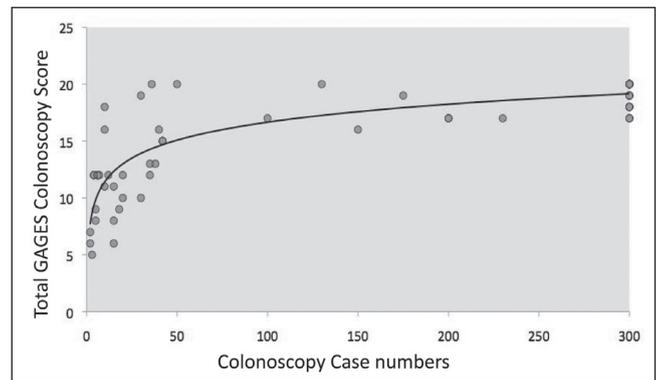


Figure 7) Using the Global Assessment of Gastrointestinal Endoscopic Skills (GAGES) to assess proficiency at lower gastrointestinal endoscopy. Reproduced with permission from reference 21

The ACE, endorsed by the ASGE, for the assessment of colonoscopy and esophagogastroduodenoscopy (EGD), built on the MCSAT model of performance-based rather than a numbers-based assessment (24). It includes specific survey items believed missed by the MCSAT model, such as ADR and breaks down broad tasks, such as safe colonoscopy advancement, into specifics such as tip control, steering and lumen identification. The Colonoscopy Skills Assessment Tool is based on 11 survey items focusing on specific tasks, and two survey items being based on overall assessment. The EGD Skills Assessment Tool is based on seven survey items and two overall assessment items. The ACE is meant to be used in a continuous fashion to enable identification of certain skill deficiencies and plateaus and, therefore, is recommended to be performed in regular intervals, a suggested 10% of total procedures by the trainee (24).

Simulation

The value of simulators for assessment in training needs to be further researched. There exist limited data demonstrating predictive validity for flexible endoscopy simulators. Unfortunately, they lack the reality aspect, making it hard to reproduce a real-life experience for the trainee.

ACQUISITION AND MEASUREMENT OF COMPETENCY: AMERICAN COLLEGE OF SURGEONS/SAGES

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SAGES FEST™: FES defines a surgical endoscopist as a surgeon who has the knowledge and technical skill to use flexible endoscopy to provide care for patients with common gastrointestinal diseases. This ability includes all of the following: an understanding of the indications and contraindications for performing UGI and LGI endoscopy; the accurate recognition and management of normal and abnormal findings in the gastrointestinal tract; the recognition and management of complications from performing gastrointestinal endoscopy; the safe performance of UGI and LGI endoscopy including complete navigation of the esophagus, stomach, proximal duodenum and colon; mucosal inspection and recognition of lesions that may require surgery; tissue acquisition using biopsy or polypectomy; management of periprocedural bleeding; and placement of a percutaneous endoscopic gastrostomy (PEG).

The curriculum is structured into the five-year general surgery training program, with the recognition that flexible endoscopy is only one component of an entire surgical residency. FES provides a step-wise, milestone-based curriculum that includes both didactic and hands-on training. There are suggested cognitive and technical milestones for each level of general surgery residency; however, individual residents at any point may complete milestones in their residency.

The resources required for a training program to provide FES curriculum are minimal. Experts in flexible gastrointestinal endoscopy, either surgical endoscopists or gastroenterologists, are required as teachers. Training programs should have flexible endoscopy simulators (inanimate, animate or computer based) and should provide a concentrated clinical rotation in flexible gastrointestinal endoscopy.

At the PGY1/2 level, early experience is dedicated to didactic materials to provide a basic understanding of gastrointestinal diseases and the anatomy of the gastrointestinal tract as perceived by flexible endoscopic techniques. The technical milestones are simulation or clinical tutorial based – basic scope manipulation: one-handed wheel deflection; control of suction, irrigation and insufflation; and passage of instruments through the working channel. Attention is focused on basic principles of characteristics of endoscopes, equipment set-up, troubleshooting and care.

At the PGY 2/3 level, a direct role in patient preparation and management during flexible endoscopic procedures is sought. The cognitive milestones of patient preparation, moderate sedation and management of findings with follow-up on pathology are all key elements. A dedicated one-month flexible endoscopy rotation is typically completed during this time. Cognitive milestones include indications for and contraindications to UGI and LGI flexible endoscopy, and periprocedural patient management. Technical milestones include simulation exposure or clinical tutorial, dedicated endoscopy experience, intraoperative endoscopy and intensive care unit endoscopy.

At the senior experience for PGY 4/5 levels, the curriculum is divided, with the first part encompassing improvements in both cognitive and technical skills. The cases will be monitored by GAGES, with the goal to achieve a minimum score of 18. Cognitive milestones include image differentiation of normal/abnormal pathology, understanding intraoperative and postoperative gastrointestinal anatomy, understanding appropriate use of endoscopy, recognition and management of complications and, ultimately, outcome measures. Technical milestones include intraoperative endoscopy, intensive care unit endoscopy and continued endoscopic experience for technical retention.

The second part of the senior experience prepares the resident for postgraduate clinical practice in endoscopy with exposure to the tools/adjuncts for therapeutic endoscopic interventions. During this final experience, residents will have additional mandatory requirements beyond part 1 of the senior experience: document procedural numbers for Royal College proficiency requirements; obtain FES certification; and have endoscopy cases monitored by GAGES to continue to consistently achieve minimum score of 18.

ACQUISITION AND MEASUREMENT OF COMPETENCY: JAG AND OTHER OPTIONS

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The JAG was established in 1994 under the auspices of the Academy of Medical Royal Colleges (25). Its aim was to establish UK standards for individual endoscopists and trainees, with the goal of providing the highest quality endoscopic services.

JAG performs quality assurance credentialing of individual endoscopy units for screening and fitness of training. For a unit to pass a JAG visit, it must provide evidence of level B or better for the following domains of the endoscopy Global Rating Scale: clinical quality; quality of the patient experience; and training and workforce. This includes an assessment of the environment, decontamination facilities and processes.

JAG accreditation is not mandatory but is necessary to work in the UK screening program and is beginning to become the minimum standard for endosuite privileges. JAG endoscopist certification is for endoscopists in training in all specialties, with specific certifications available in UGI endoscopy (both basic and therapeutic), sigmoidoscopy, colonoscopy (basic and full), gastrointestinal stenting, pediatric colonoscopy, endoscopic retrograde cholangiopancreatography, endoscopic ultrasound and small bowel enteroscopy.

The certification process

JAG developed an endoscopy training system known as 'JETS'. JETS is a registry portal and basic skills course booking resource for trainees that provides a framework for training and auditing progress. Trainees register for JETS as the first step in their certification process, which submits their key endoscopic data. They are provided performance outputs required to chart their competence progression.

The formative data regarding the trainee is then collected via DOPS, which is a preceptor-based evaluation tool of endoscopy skills (22). Once the trainee has completed ≥ 200 procedures and met the provisional JAG certification criteria, including CIR $\geq 90\%$, the trainee can receive provisional acceptance. Full eligibility for endoscopy is not granted until ≥ 300 procedures are completed and additional full colon certification criteria are met.

Of note, JAG-accredited endoscopy units are mandated to provide equal access to endoscopy training to all trainees regardless of specialty. This allows trainees to learn from experts in both specialties with equal opportunity to caseloads. A survey by Hammond et al (26) in 2012, reported that two of three surgical trainees from all UK training regions admit to lacking access to endosuite, with no scheduled training lists. The authors concluded that surgical trainees are failing to achieve national standards due to deficiencies in endoscopy training.

ISSUES/ROADBLOCKS AND GOING FORWARD

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Ensuring the delivery of high-quality endoscopy to Canadians is of utmost importance. We need to ensure that residents who are going to provide gastroenterological surgical services are competent endoscopists at the end of their postgraduate training. This will likely require a combination of increased endoscopy exposure, simulation-based learning and adopting objective structured assessments of training. In addition, there is a need for an endoscopy auditing system in Canada, in which endoscopy services can be evaluated at an individual, institutional and provincial level.

Delivery of gastrointestinal endoscopy services

The delivery of gastrointestinal endoscopy services remains in flux. Some groups have suggested that the delivery of endoscopy services be the domain of dedicated endoscopists. However, across Canada, the need for physicians who provide more than one type of service is increasingly recognized to be important to the effective delivery of health care services. Individuals providing endoscopy services should be expected to provide acute care, such as acute surgical care in the case of surgical endoscopists, or acute medical care in the case of medical endoscopists.

Regionalization versus community-based endoscopy

Should the delivery of endoscopy services be regionalized similar to cancer care or is there an opportunity to shift routine endoscopy services from larger tertiary care centres to the community-based health care centres? Given the increasing evidence that routine endoscopy services can be effectively delivered at lower cost at ambulatory care centres, it appears that a more distributed care delivery system is the better of the two strategies.

Rebranding of general surgery

General surgery as a specialty is in need of rebranding. There exists a training misconception that surgical residents are limited to two months of exposure to gastrointestinal care, contrasted with gastroenterology fellows who devote two years to training. This is a fallacy because most general surgery residents devote the majority of their postgraduate training – usually between five and eight years – to managing gastrointestinal diseases. This misconception could be avoided if the specialty of general surgery was rebranded to general and gastrointestinal surgery.

Subspecializing resident training

With the trend of subspecializing in general surgery, it should not be expected that all general surgery residents be competent endoscopists.

For breast and endocrine surgeons, for example, colonoscopy is not a fundamental tool in their practice. With the extra assessment necessary to provide endoscopy training for a program, it may be a cost-effective measure to have the residents self-select themselves, similar to choosing a fellowship training program. If they want to provide endoscopy services in their practice, then they are responsible to ensure that, over their training, they take advantage of endoscopy opportunities and perform the necessary numbers to meet the current ASGE guidelines, and undergo the necessary assessments for credentialing.

The numbers game

Assessing competency should not be based solely on numbers alone but, rather, should incorporate simulated, bedside or outcomes-based assessments. However, numbers are still important. The existing ASGE numbers are reasonable goals for training competent, basic endoscopists. The proposal of increasing the minimum to 300 colonoscopies in training will prove more challenging and, in many situations, exceedingly difficult to achieve during residency.

Going forward, there are several important steps CAGS should take to ensure that endoscopy remains an integral part of Canadian surgeons' scope of practice including: forming a CAGS Endoscopy Taskforce; working with our gastroenterology colleagues to improve endoscopic services; and rebranding general surgery to general and gastrointestinal surgery. It is also important that Canadian surgery training programs adopt a formal endoscopy training curriculum and that the surgical community work to adopt a universal strategy for auditing operators who provide these important services to Canadians.

WORKING GROUP OBSERVATIONS AND DISCUSSION

Roundtable discussion with participants

Observations: The roundtable discussion focused on a number of major observations concerning the state of endoscopy in Canada. The most obvious finding is that the effective delivery of endoscopic services in Canada is an ongoing concern: to general surgeons, gastroenterologists and public health. There appears to be a disparity in endoscopic services delivered nationwide, with the assessment of competency in endoscopy being limited.

Training in endoscopy continues to be a significant topic of discussion. There is a sense of inconsistency within the training of endoscopy. There is a perception both among trainers and surgical trainees that endoscopy training is lacking, as evidenced by the opinions obtained by the resident survey.

Recommendations

The endoscopy taskforce formulated several recommendations based on these observations.

First and foremost, quality endoscopy services must include the complete spectrum of quality care inclusive of a proper diagnosis, treatment and follow-up. Endoscopy is a component of the larger assessment and evaluation of disorders of the gastrointestinal tract.

There needs to be a system of accreditation of endoscopists and endoscopic units, which would include practice audit and competency assessments. Competency in endoscopy should start with the appropriate training of trainees and should extend into the arena of the practising endoscopist. Postgraduate training needs to be formalized and standardized; this includes structured curriculum to acquire both the technical and cognitive components of endoscopy. Furthermore, opportunities for advanced training and enhancing endoscopic skills for practitioners need to be in place.

CONCLUSION

The Proceedings of General Surgeons and the Provision of Quality Endoscopy Services in Canada, held in Toronto, Ontario, was a collaborative effort between general surgeons and gastroenterologists to ensure Canadians are receiving high-quality endoscopic services.

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