# Colonoscopy Sedation Practices at General Surgery Training Programs: A Pan-Canadian Study

Adele Orovec, MD[1]; Farhana Shariff, MDCM, MSc[2]; Richard R Spence, MB ChB, PhD[1]; Cornelis M Hoogerboord, MB ChB, MSc[1]

[1]Division of General and Gastrointestinal Surgery, Dalhousie University, Halifax, Nova Scotia [2]Section of General Surgery, Department of Surgery, University of Manitoba, Winnipeg, Manitoba

## Background

Colonoscopy is routinely performed under procedural sedation (PS) to achieve adequate analgesia, anxiolysis, and amnesia. PS enhances the quality of colonoscopy. However, current PS practices may be suboptimal and related to a lack of formal training.

## Purpose

Evaluate present day sedation practices at endoscopy units affiliated with general surgery residency programs across Canada, and to determine whether there may be a need for a formal teaching curriculum on PS.

## Methods

A cross-sectional, web-based survey of sedation practices and training was distributed by email to the endoscopy site leads at all English-speaking general surgery residency programs in Canada.

References

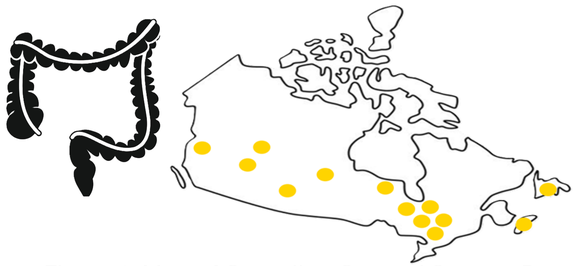


Figure 1 Map of Canadian General Surgery Programs

## Results

21 responses from 12 programs (92%) were obtained. There was a relatively even distribution of gastroenterologist and general surgeon endoscopists (Figure 2). No program required formal training in procedural sedation for endoscopists or trainees. Most units did over 5000 colonoscopies per year (Figure 3) and procedural sedation was provided in all units, 91% of which used it in more than 75% of cases. Sedation was mostly endoscopist-provided (86%), and the most common regimen was a combination of an opioid and benzodiazepine (86%). Reasons for not using propofol included lack of familiarity, training, and appropriate provider, as well as concerns about safety (Figure 4).

Figure 2 Type of Endoscopist at Various Training Sites

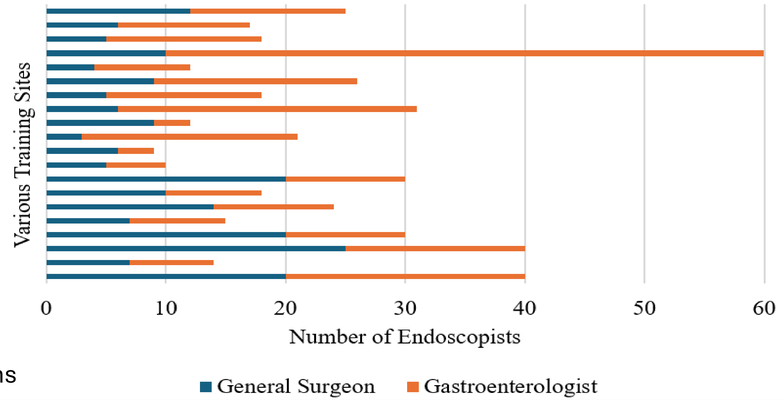



Figure 3 Annual Colonoscopy Volume

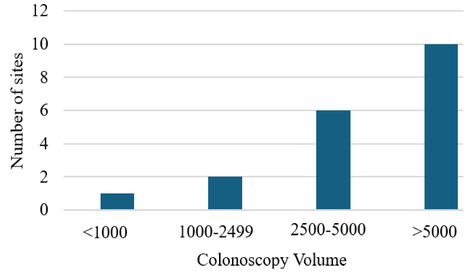
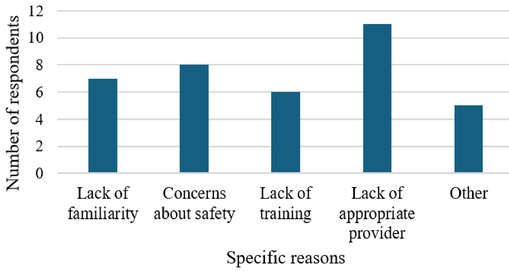



Figure 4 Reasons why Propofol is not used




## Discussion

Despite significant advances in the field of conscious sedation over the past 20 years, little has changed in terms of procedural sedation for colonoscopy. No Canadian general surgery residency program requires formal training in procedural sedation for either staff endoscopists or trainees. Canada seem to be limited by a “one size fits all approach”, which suggests a clear gap in knowledge preventing growth in the domain of quality endoscopic assessment.

## Future Directions

The design and implementation of a procedural sedation curriculum may serve to appropriately equip providers with the knowledge and skills to allow for tailored, individualized procedural sedation regimens that will add to improved patient satisfaction and colonoscopy quality metrics.