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Title	A population-based cohort study examining geographic variation in the provider of screening colonoscopy care in Canada: rural surgeons and urban gastroenterologists?
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Reviewer 1	Dr. Jeffrey A. Bakal
Institution	Canadian VIGOUR Center, University of Alberta, Edmonton, Alta.
General comments (author response in bold)	1. Given the diversity in health systems across the country some Focus on individual provinces with access to both would be worthwhile. **We do appreciate this point and have adjusted for individual provinces within our final analysis to account for the differences across individual provinces that may confounding the final relationship. Therefore, are conclusions would be the average effect across all provinces after accounting for intraprovincial correlation. In addition, we do agree that it focus on individual provinces would also be worthwhile but out of the scope of this paper.** 2. Additionally some breakdown of the rural vs urban centers i.e., a low socioeconomic inner city area is very different from a lower socioeconomic region in northern Manitoba as is their access to care. So somehow this needs to be addressed **In adjusting for provinces with random effects as well as the socioeconomic quartile and rural status of the neighborhood in our final analysis we feel that these aspects have been addressed. We have better described these adjustments in our statistical analysis section.** 3. As a minor point, there are also comparisons made at the start of the results section with no test or measure of variability. **We have added P values to the relevant univariable comparisons.** 4. And there are a few areas where mean is likley not a robust measure of centre. **We would be happy to represent certain areas with nonparametric statistics at the reviewers request.**
Reviewer 2	Dr. Maida Sewitch
Institution	Department of Medicine, McGill University Health Centre, Montréal, Que.
General comments (author response in bold)	Major concerns 1. The major methodological concerns with this database study are the definition of a screening colonoscopy and the use of the screening code. What do Canadian endoscopists consider a 'screening colonoscopy' since colonoscopy is not a primary screening modality? Is the same definition of screening colonoscopy used by all endoscopists, or does it differ by individual endoscopists or specialty (GIs and surgeons)? There needs to be some validation work done to show the systematic use of this code by the different specialties. **Colonoscopy is a primary screening modality for colorectal cancer alongside cheaper alternatives such as fecal occult option blood testing (FOBT) or the newer fecal immunohistochemistry testing (FIT). The 2004 Canadian Association Gastroenterology and the 2009 American College of Gastroenterology both accept colonoscopy as a viable screening option with the latter saying that colonoscopy every 10 years is the preferred screening strategy. The Canadian Task Force On Preventive Health recommends screening sigmoidoscopy over colonoscopy, as the former has randomized evidence associated with it, however in practice screening colonoscopy is far more utilized. More recently, the cheaper fecal testing alternatives have been recommended based on reduced cost.** **We would expect that the screening code reflects the use of colonoscopy for the detection of polyps and colorectal cancers as opposed to follow-up for surgical condition, such as colorectal cancer surveillance after initial surgery, or work-up of particular gastrointestinal disorders, such as bleeding or diverticulitis. Considering that only about 26% of the colonoscopies in our database of all colonoscopies during the timeframe were for screening purposes, we felt that the other major indications were well identified by CIHI.** **From a clinical perspective, the definition of a screening colonoscopy would certainly not differ between specialties. What may differ between specialties is the relative frequency of screening colonoscopies versus colonoscopies for cancer/surgery surveillance and those as part of a workup for a gastrointestinal condition. The similarity of the procedure between both specialties is part of the reason that we used screening colonoscopy as opposed to all colonoscopies. Lastly, even if there was some level of misclassification of screening colonoscopies, there should be no reason that the misclassification rate would differ between specialties or differ between urban and rural settings studied in this paper. Though some misclassification may exist it is unlikely to substantially bias our final results. Please also see our answer to question two regarding the validity of the CIHI database. We have added to our methods and limitations to address these points.** 2. The major clinical concern with the paper is the relevance of this work to practice, which was not clearly stated in the paper. **We appreciate this comment. The major clinical relevance of this paper is twofold. First, it is to demonstrate that both specialties are important to the delivery of colonoscopy care in Canada, a fact that has not been previously clearly demonstrated. This has impact on both planning and training. It reinforces that endoscopy training is vital for both specialties and especially the rural surgeon. In addition, it is important that endoscopy remain within the training of both specialties. This can be an issue as, due to the distribution of gastroenterologists in urban centers, they also tend to be disproportionately in control of endoscopy training in major urban centers. Second, is to demonstrate that rural areas are serviced by lower volume surgical practices. This lends itself to the fact that the higher volume endoscopy practices of gastroenterologists may not be feasible in rural areas and therefore the same benchmarks expected by urban endoscopists may not apply to rural endoscopists. It therefore highlights, then, that ensuring access to high quality colonoscopy care will be a challenge. We have updated the discussion to better reflect these points** **Minor concerns** **We have addressed and highlighted all of your minor concerns.** **Table 1:** **3. Gastroenterologist (not Gastroenterology)/Surgeon** **4. Total number of colonoscopies** **Table 2:** **5. Define hotspots** **6. Gastroenterologist** **7. Total number of colonoscopies** **8. Surgeon performed (%)** **9. Mean distance (what does this mean)**

	Table 3 and 4: **10. Difficult to understand the tables from the titles**