

# Surveillance colonoscopy after resection of large polyps: Can we reduce loss to follow up?



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Appropriately timed surveillance colonoscopy (SC) after resection of colonic polyps larger than 20 mm has been shown to be associated with reduction in colorectal cancer incidence in the long term [1]. The rate of local recurrence after colonoscopic resection of large polyps with endoscopic mucosal resection (EMR) can be high, although 90% of such local recurrences can be detected at SC done at 6 months [2]. Errors in scheduling of SC can result in avoidable post-colonoscopy colorectal cancer (PCCRC) [3]. Surveillance colonoscopy, therefore, is of utmost importance after endoscopic resection.

The European Society of Gastrointestinal Endoscopy recommends SC 3 to 6 months following resection by piecemeal EMR [4], but physician adherence to recommendations is often poor [5]. Although non-adherence of patients to local recommendations for screening colonoscopy is well documented [6], there is a paucity of data on the rate of non-adherence to SC in patients after resection of large polyps and factors contributing to it. This study attempted to address this gap in knowledge with a case record-based retrospective analysis [7].

In this study, Farooq et al studied the rate of patient non-adherence to SC and the potential factors contributing to it, following resection of large (> 20 mm) colonic polyps. It was noted that as many as 49.8% of patients were non-adherent to SC. In their paper, the authors also assessed patient factors and health care system-related factors that may have contributed. Pa-

tients with comorbidities and who lived farther away from the endoscopy unit were more likely to drop out of SC. Healthcare system factors that the authors found to have possibly contributed to patient non-adherence included lack of primary care practitioner involvement and absence of documented instructions for follow-up colonoscopy.

Although these findings provide some preliminary insights into patient and healthcare system-related factors that may have contributed to the high attrition rate for SC after resection of polyps, it is important to note that several limitations exist that leave room for future studies. First, it is not clear if an informed, multidisciplinary decision to defer surveillance colonoscopy was made by the treating team in patients with severe comorbidities - a factor that should be evaluated in future studies.

Second, although local connectivity and other logistic factors could play an important role in adherence to SC, the 60-mile maximum distance covered by the institution may be a deterrent. Sixteen percent of patients lived more than 60 miles away. From a patient advocacy perspective, traveling such long distances can be intolerable, especially if bowel preparation is required prior to the journey. It is plausible that some patients may have elected for colonoscopy in another center closer to home, and it is vitally important to note that such case ascertainment was not performed in this study.

Third, patient awareness and attitudes toward SC can impact adherence. Poor awareness and negative perceptions, in combination with non-modifiable risk factors such as comorbidities and logistics, could have contributed to patient non-adherence. Improved patient awareness and attitudes could potentially reduce attrition in such cases. This may explain why the involvement of a primary care practitioner (PCP) appears to mitigate loss to follow-up from SC in this study.

Fourth, lack of written follow-up recommendations in the colonoscopy report was associated with a physician-related factor, which audits and quality improvement projects could target. It should be noted that pathologically curative, en bloc resection of low-risk lesions can be considered for SC at 12 months [8], and it is not clear if the treating team had deliberately planned to select the surveillance interval after pathology report/multidisciplinary evaluation, especially in patients with comorbidities. Simple electronic measures, such as an automated reminder, can make a difference and improve adherence to screening [9]. This is one avenue where artificial intelligence (AI) can be integrated with healthcare informatics to automate workflows and reduce loss of follow-up.

Finally, the elephant in the room is cost. The results may not be generalizable to healthcare systems in which SC is not associated with any out-of-pocket costs to patients. Such systems also may be more effective at coordinating care and follow-up across borders, in centers that are more accessible to patients.

Overall, this study offers actionable insights and preliminary data about factors contributing to patient non-adherence to SC. Audits, quality improvement projects, and further prospective studies can build upon the findings of this study to improve clinical outcomes and reduce potential harm to patients. Given the preference patients may have for fecal immunochemical test (FIT) over colonoscopy [10], future studies should also evaluate the utility of FIT in surveillance and use of novel AI-assisted tools to improve adherence to SC.

### Conflict of Interest

The authors declare that they have no conflict of interest.

### References

- [1] Atkin W, Wooldrage K, Brenner A et al. Adenoma surveillance and colorectal cancer incidence: a retrospective, multicentre, cohort study. *Lancet Oncol* 2017; 18: 823–834 doi:10.1016/S1470-2045(17)30187-0
- [2] Belderbos TDG, Leenders M, Moons LMG et al. Local recurrence after endoscopic mucosal resection of nonpedunculated colorectal lesions: systematic review and meta-analysis. *Endoscopy* 2014; 46: 388–402 doi:10.1055/s-0034-1364970
- [3] Anderson R, Burr NE, Valori R. Causes of post-colonoscopy colorectal cancers based on World Endoscopy Organization System of Analysis. *Gastroenterology* 2020; 158: 1287–1299.e2 doi:10.1053/j.gastro.2019
- [4] Hassan C, Antonelli G, Dumonceau J-M et al. Post-polypectomy colonoscopy surveillance: European Society of Gastrointestinal Endoscopy (ESGE) Guideline - Update 2020. *Endoscopy* 2020; 52: 687–700 doi:10.1055/a-1185-3109
- [5] Djinbajian R, Dubé A-J, Durand M et al. Adherence to post-polypectomy surveillance guidelines: a systematic review and meta-analysis. *Endoscopy* 2019; 51: 673–683 doi:10.1055/a-0865-2082
- [6] Wu W, Huang J, Yang Y et al. Adherence to colonoscopy in cascade screening of colorectal cancer: A systematic review and meta-analysis. *J Gastroenterol Hepatol* 2022; 37: 620–631 doi:10.1111/jgh.15762
- [7] Farooq A, BaniFawwaz B, Mian A et al. Patient adherence to surveillance colonoscopy after endoscopic resection of colorectal polyps and factors associated with loss to follow-up. *Endosc Int Open* 2024 (online ahead of print).
- [8] Pimentel-Nunes P, Libânio D, Bastiaansen BAJ et al. Endoscopic submucosal dissection for superficial gastrointestinal lesions: European Society of Gastrointestinal Endoscopy (ESGE) Guideline - Update 2022. *Endoscopy* 2022; 54: 591–622 doi:10.1055/a-1811-7025
- [9] Mahmud N, Doshi SD, Coniglio MS et al. An automated text message navigation program improves the show rate for outpatient colonoscopy. *Health Educ Behav* 2019; 46: 942–946
- [10] Makaroff KE, Shergill J, Lauzon M et al. Patient Preferences for colorectal cancer screening tests in light of lowering the screening age to 45 years. *Clin Gastroenterol Hepatol* 2023; 21: 520–531.e10