

Enhancing Patient Safety Surrounding Colonoscopy Procedures

By Christine E. Sanchez, MPH¹



Keywords: colonoscopy complications, colonoscopy perforation, post-colonoscopy bleeding, patient safety, patient education

¹Patient Safety Authority

Disclosure: The author declares that they have no relevant or material financial interests.

Submitted

January 17, 2025

Accepted

January 21, 2025

Published

March 21, 2025

License

This article is published under the [Creative Commons Attribution-NonCommercial 4.0 \(CC BY-NC\)](https://creativecommons.org/licenses/by-nc/4.0/) license.

This article was previously distributed in a February 5, 2025, newsletter of the Patient Safety Authority, available at <https://conta.cc/3CCNJxR>.

Sanchez CE. Enhancing Patient Safety Surrounding Colonoscopy Procedures. *Patient Safety*. 2025;7(2):129-611. doi:10.33940/001c.129611

Colonoscopies are performed for screening, therapeutic, and diagnostic reasons, with over 15 million being performed every year in the United States.¹ Screening colonoscopies play an integral part in the diagnosis and treatment of colorectal cancer and are estimated to decrease the risk of death from colorectal cancer by 60%.¹ While providing essential healthcare services to patients, this routine procedure comes with risks such as post-procedure bleeding and perforations of the intestinal tract.² Post-procedure bleeding can occur when polyps are removed for testing during the procedure. Employing techniques to prevent complications and enhancing patient awareness of what to look for while recovering are essential to increase patient safety during and after these procedures.

Reports recently submitted to the Pennsylvania Patient Safety Reporting System (PA-PSRS) describe patient safety events that involved patients experiencing bleeding and/or a perforated bowel following a colonoscopy. In some of these reports, patients required hospitalization to control post-procedure bleeding, while others described a return to the operating room and/or death due to a perforation.^{1,3} Strategies to reduce the risk of bleeding include using evidence-based techniques when removing polyps based on their size and managing a patient's use of anticoagulants or daily aspirin. Polyps less than one centimeter are recommended to be removed using a cold polypectomy technique (i.e., using a snare or forceps that do not require electrocautery). The risk of bleeding with removal of larger polyps can be decreased by using endoscopic clips, nylon loops, or injecting epinephrine.

Generally, patients who chronically use anticoagulants will require cessation of these medications before their procedure or other management to decrease bleeding risks.⁴ Techniques to decrease the risk of perforation during a colonoscopy include injecting fluid under large or flat polyps before removal and avoiding dilation in areas with significant inflammation.³

Patient education plays a key role in managing post-procedure recovery. To prepare patients to manage possible post-procedure complications, patients should be educated on the signs and symptoms to look for during recovery. Patients should be informed that while a small amount of bleeding may occur with their first bowel movement after the procedure, persistent bleeding or passing of blood clots is a concern, and they should seek medical attention if it occurs. Patients should also look out for persistent abdominal pain and fevers in the days and up to two weeks after a colonoscopy.⁵ To ensure effective communication, the timing of when this information is provided should be considered. Providers should avoid explaining these signs and symptoms during the immediate post-procedure time frame, as patients may still be feeling the effects of anesthesia. Instead, this conversation with the patient should occur during a preprocedure appointment or before anesthesia is administered preprocedure, and this information can also be communicated to a family member to ensure understanding.

Combining evidence-based techniques to minimize the risk of complications with clear patient education regarding signs and symptoms that require further medical attention can result in increased patient safety for routine colonoscopies.

References

1. Gangwani MK, Aziz A, Dahiya DS, et al. History of Colonoscopy and Technological Advances: A Narrative Review. *Transl Gastroenterol Hepatol*. 2023;8:18. doi: 10.21037/tgh-23-4
2. Lee L, Saltzman JR. Overview of Colonoscopy in Adults. In: Connor RF, ed. UpToDate. Wolters Kluwer. Accessed January 16, 2025.
3. Odom SR. Overview of Gastrointestinal Tract Perforation. In: Connor RF, ed. UpToDate. Wolters Kluwer. Accessed January 16, 2025.
4. Saltzman JR. Management and Prevention of Bleeding After Colonoscopy With Polypectomy. In: Connor RF, ed. UpToDate. Wolters Kluwer. Accessed January 16, 2025.
5. Mayo Clinic. Colonoscopy. Mayo Clinic website. <https://www.mayoclinic.org/tests-procedures/colonoscopy/about/pac-20393569>. Published February 28, 2024. Accessed January 16, 2025.

About the Author

Christine E. Sanchez (chrsanchez@pa.gov) is a research scientist on the Data Science & Research team at the Patient Safety Authority (PSA). She is responsible for utilizing patient safety data, combined with relevant literature, to develop strategies aimed at improving patient safety in Pennsylvania.

