



When to Discontinue Colon Polyp Surveillance in Older Adults?



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This summary reviews Lee JK, Roy A, Jensen CD, et al. Surveillance colonoscopy findings in older adults with a history of colorectal adenomas. *JAMA Network Open* 2024;7(4):e244611 .

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STRUCTURED ABSTRACT

Question: What are the rates of colorectal cancer (CRC) and advanced adenomas in older patients with prior adenomas on last colonoscopy, stratified by age and presence of non-advanced or advanced adenoma on last colonoscopy?

Design: Retrospective, population-based, cross-sectional study

Setting: Kaiser Permanente Northern California, a large community-based health system.

Patients: Patients aged 70 to 85 years old between January 1, 2017 to December 31, 2019 who had a history of adenomas detected over 12 months prior and were undergoing colonoscopy for colon polyp surveillance during the study period. Higher risk individuals with prior CRC, hereditary CRC syndrome, inflammatory bowel disease, and prior colectomy were excluded along with individuals who had colonoscopies with inadequate quality.

Interventions: Surveillance colonoscopy.

Outcomes: Rates of CRC and advanced adenoma, defined as villous adenoma, adenoma with high grade dysplasia, and adenoma ≥ 10 mm on surveillance

colonoscopy were recorded with results stratified based on age group (70-74, 75-79 or 80-85 years old) at time of surveillance colonoscopy and whether patient had non-advanced or advanced adenoma on last colonoscopy. Secondary outcomes were factors, including advancing age, body mass index (BMI), smoking history, that were associated with advanced neoplasia (advanced adenoma plus CRC).

Data Extraction and Analysis: Using the endoscopic, histologic, and demographic databases contained within Kaiser Permanente Northern California system, baseline data about prior and current colonoscopies was obtained along with demographic data. Chi-square test was performed to compare rates between groups. Multivariable logistic regression was also performed using a combination of demographic factors (gender, smoking history, BMI, etc.) to identify risk factors for advanced adenomas on surveillance colonoscopy.

Funding: The National Cancer Institute.

Results: Of 9,740 surveillance colonoscopies in 9,601 patients, 58.9%, 33.1% and 8.0% were performed in 70-74, 75-79 and 80-85 year-olds, respectively. Other demographic data included 61% male; 30% with BMI ≥ 30 ; 50% never smoked tobacco; 76% had non-advanced adenomas on index colonoscopy with mean 5.1 years between colonoscopies while 24% had advanced adenomas at index colonoscopy with mean 3.3 years between colonoscopies.

Overall, 0.3% had findings of CRC, 11.7% advanced adenoma, and 12.0% advanced neoplasia. There were no differences between age groups. CRC (0.5% vs 0.2%, $P = 0.02$) and advanced neoplasia (16.5% vs 10.6%, $P < 0.001$) were higher with prior advanced vs non-advanced adenomas. Significant adjusted covariate factors for advanced neoplasia were prior advanced adenoma (adjusted odds ratio [aOR] 1.65, 95% confidence interval [CI] 1.44-1.88), BMI ≥ 30 vs < 25 (aOR 1.21, 95% CI 1.03-1.44), tobacco use (aOR 1.14, 95% CI 1.01-1.30). Asian/Pacific Islanders were at lower risk (aOR 0.81, 95% CI 0.67-0.99)

COMMENTARY

Why Is This Important?

Colonoscopies in elderly patients have increased risk of complications, and gastroenterologists have to weigh this risk against the diagnostic/therapeutic benefits of colonoscopy. There is inadequate existing evidence guiding how to

approach surveillance colonoscopies (i.e., when to stop colonoscopies) among older adults with prior adenoma, particularly among those with prior non-advanced adenomas (who can go 10 years between colonoscopies based on revised guidelines) vs those with prior

advanced polyps given their elevated subsequent CRC risk.¹⁻⁴

Key Study Findings

Overall, the rate of CRC on surveillance colonoscopy in individuals ≥ 70 years old with non-advanced adenomas on prior colonoscopy was 0.2% with 10.4% having advanced adenomas. Considering that it takes multiple years for an advanced adenoma to develop into CRC, the yield of surveillance colonoscopy to prevent CRC in patients with history of non-advanced adenomas seems low.

Among other factors predictive of advanced neoplasia at surveillance colonoscopy, prior advanced adenoma (aOR 1.65, 95% CI 1.44-1.88) was the only factor that was associated with a clinically important increase in risk.

Given that life-table analysis demonstrate limited life expectancy for individuals ≥ 70 years old, especially if the individual has a history of cardiovascular disease, diabetes, or tobacco use, the benefit of surveillance colonoscopy if the patient has non-advanced adenomas on index colonoscopy is probably quite limited.

Caution

First, remember that this study does not address at what age we should no longer offer index (first-time) CRC screening.⁵ Second, while the rate of CRC was low, a fair proportion of patients with

prior advanced adenomas did have meta-chronous advanced colorectal polyps. While these are still “pre-cancerous,” it is difficult to discern whether these patients were at particularly high risk of future CRC risk for a longer follow-up period thereafter. Third, the study did not have enough granularity of data to discern details of family history of CRC (who was affected and at what age), as a first-degree family member with early onset CRC increases familial risk of CRC much more than a second-degree family member with later onset CRC.

My Practice

In older patients ≥ 70 years old with prior non-advanced adenomas, I tend to encourage cessation or limitation of future colonoscopies. This does not preclude future onset of CRC, but it is important to discuss with the patient that performing colonoscopy at an elderly age may not be worth the burden of bowel preparation or procedural risk compared to a low future CRC risk. In similar patients with prior advanced adenomas, I may discuss 1-2 further colonoscopies depending on their overall health and personal preference. In my practice population, we have a fair number of otherwise healthy patients who have undergone colectomies for CRC well into their 80s or even 90s without major complications.

For Future Research

While this study can aid us in shared decision-making regarding cessation of colonoscopy in older patients with prior

adenomas overall, future studies that attempt to differentiate risk based on type of previous advanced polyps (i.e., based on size alone, or advanced histology such as high grade dysplasia) would assist in targeting those who may be at particularly higher risk of future CRC. Future research regarding cessation of colonoscopy in those with prior CRC may also similarly assist in determining cessation of surveillance colonoscopies.

Conflict of Interest

Dr Yen has no conflicts of interest.

Note: The authors of this study are active on social media. Tag them to discuss their work and this EBGI summary.

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