Surveillance Recommendation for Colonoscopy after Polypectomy

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KEYWORDS

• Colonoscopy • Surveillance • Polyp • Polypectomy

KEY POINTS

- . Patients with advanced adenomas on index colonoscopy benefit most from surveillance exams with regard to reduction in CRC risk.
- Resection of low-risk lesions on index colonoscopy is associated with reduced CRC compared to those not screened, with less certain incremental benefit from subsequent surveillance.
- In practice, surveillance colonoscopy is often overutilized by individuals at lowest risk of advanced neoplasia or CRC and underutilized by those at highest risk.

INTRODUCTION

Colorectal cancer (CRC) is the third leading cause of cancer and cancer-related mortality in the United States, with an estimated 148,000 new cases annually in 2020.[1] CRC incidence and mortality, however, have declined over the past several decades,[2] largely due to improvement and uptake in screening, particularly with colonoscopy.[3–8] Colonoscopy allows for the modification of CRC outcomes not only by the identification of CRC at an earlier, more treatable stage but also by allowing for the identification of colorectal polyps, premalignant lesions from which the most CRCs arise.[9] Although the benefits of endoscopic polyp detection are in part due to the identification of individuals at increased risk of CRC who would benefit from heightened surveillance, endoscopic removal of premalignant colorectal polyps also has the potential to reduce the incidence of[10] and mortality from CRC.[4,11]

The most common type of colorectal polyps is adenomas, which are premalignant lesions that can progress through a well-described adenoma–carcinoma sequence

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that takes several years.[9] Carcinogenesis in adenomatous polyps follows a stepwise series of molecular changes, characterized by progressive *APC* then *KRAS* and *p53* mutations. Adenomas are often stratified by endoscopic and histologic features that impact the risk of CRC. High-risk adenomas (HRAs) or advanced adenomas include those greater than 10 mm in size or those with villous histology or high-grade dysplasia, whereas low-risk (LRA) or nonadvanced adenomas include those less than 10 mm in size and lacking advanced histologic features. Increasing recognition is also being given to the malignant potential of serrated polyps, comprising hyperplastic polyps, sessile serrated polyps (SSPs), and traditional serrated adenomas (TSAs),[12] which are characterized by *BRAF* mutations, disruptions to the Wnt signaling pathway, and widespread methylation of CpG islands.[13,14] Serrated polyps are thought to be precursor lesions in up to 30% of CRC cases.[15–18]

Despite the efforts to tailor colonoscopy and surveillance strategies based on environmental or genetic risk factors,[19,20] current practice in the United States relies nearly entirely on personal polyp history along with the family history of CRC or polyps as the only factor to inform surveillance intervals for individuals without a known hereditary CRC syndrome or inflammatory bowel disease.[21–23] Given that colonoscopies are invasive and expensive procedures and that polyp-related factors can result in recommended surveillance intervals ranging from 1 to 10 years,[23] the public health and economic impact of recommendations for colonoscopy surveillance after polypectomy are significant. Current estimates suggest that approximately 25% of colonoscopies in the United States are performed for surveillance purposes.[24] Moreover, evidence has shown that in practice, surveillance colonoscopy is often overutilized by individuals at lowest risk of advanced neoplasia (AN) or CRC and underutilized by those at highest risk,[25–27] highlighting the importance of defining individual risk of metachronous neoplasia after colonoscopy to inform the equitable allocation of health care resources and maximize their yield. The US Multi-Society Task Force (MSTF) on CRC published guidelines for surveillance after polypectomy in 2012,[28] which were updated in 2020 with some important changes (**Table 1**).[23] This review will provide an updated overview of evidence and outcomes of surveillance after polypectomy.

SURVEILLANCE AFTER POLYPECTOMY OF ADENOMAS

Metachronous Colorectal Cancer Risk

Adenomatous polyps, which are found in 25% to 50% of screening colonoscopies,[29–31] are the most common polyps with malignant potential found during colon cancer screening. Individuals with adenomas tend to develop additional adenomas throughout life, with approximately 40% to 50% of individuals undergoing polypectomy developing recurrence of polyps within 5 years and up to 60% to 70% after 10 years.[32–35] Despite undergoing polypectomy, individuals with adenomas appear to be at increased risk of CRC than the general population.[36,37] When stratified by adenoma subtype, it appears that observed CRC risk is driven primarily by those with advanced adenomas.[37] A population-based study from the United Kingdom found that individuals with an adenoma found on colonoscopy (of any size) had a standardized incidence ratio (SIR) of 1.26 for subsequent CRC than the general population.[37] However, the SIR for CRC for individuals with an advanced adenoma was 2.23, whereas 0.68 for those without an advanced adenoma, providing further evidence that polypectomy for nonadvanced adenoma is in fact protective against CRC while polypectomy for advanced adenoma helps to identify individuals at elevated risk of metachronous CRC.[37] A Norwegian cohort study with a median of 7 years of follow-up found similarly divergent influences of removal of LRAs and HRAs on risk of

Table 1
Summary of changes in US MSTF polyp surveillance guidelines from 2012 to 2020

US MSTF Post-polypectomy Surveillance Recommendations	2012[28]	2020[23]
Adenoma		
1–2 adenomas <10 mm	5–10 y	7–10 y
3–4 adenomas <10 mm	3 y	3–5 y
5–10 adenomas <10 mm	3 y	3 y
Adenoma >10 mm; villous histology; high-grade dysplasia	3 y	3 y
10 or more adenomas	<3 y	1 y
Piecemeal EMR adenoma >20 mm	<1 y[a]	6 mo
Serrated lesions		
HP <10 mm	10 y[b]	10 y
1–2 SSP <10 mm	5 y	5–10 y
3–4 SSP <10 mm	3 y[b]	3–5 y
5–10 SSP <10 mm	3 y[b]	3 y
SSP >10 mm; dysplasia	3 y	3 y
HP >10 mm	3–5 y[c]	3–5 y
TSA	3 y	3 y
Piecemeal EMR SSP >20 mm	<1 y[a]	6 mo

Abbreviations: EMR, endoscopic mucosal resection; HP, hyperplastic polyp; SSP, sessile serrated polyp; TSA, traditional serrated adenoma; US MSTF, United States Multi-Society Task Force on Colorectal Cancer.

[a] 2012 Guidelines recommend early follow-up colonoscopy for piecemeal resection of adenoma or SSP greater than 15 mm if concern for incomplete removal.

[b] Recommendations for surveillance of certain serrated lesions derived from Rex and colleagues, 2012.[64]

[c] 2012 expert consensus by Rex and colleagues[64] recommends 5 y surveillance for HP >.5 mm proximal to sigmoid. Some advocate that all HP >10 mm proximal to sigmoid be treated as SSP.

CRC-related mortality.[38] Findings from the large Prostate Lung Colorectal and Ovarian Cancer (PLCO) cohort demonstrated that index HRA was associated with a nearly threefold increased risk of CRC and CRC-related mortality, whereas no such risks were seen in individuals with baseline LRA.[39]

In spite of the increased risk of CRC associated with adenomas, evidence suggests that polypectomy with the resection of adenomatous tissue can reduce this risk. Two large case-control studies of CRC in the United States and Germany found that compared to individuals without prior colonoscopy, individuals with colonoscopy and polypectomy within the previous 5 years had significantly reduced risk of CRC.[5,40] No significant durable protection from CRC incidence for individuals with polypectomy in the preceding 6 to 10 years was found in either study.[5,40] In the same studies, among those with the removal of advanced adenomas, an attenuated protective effect of polypectomy on CRC incidence was seen for up to 5 years as well.[5,40] Findings from the National Polyp Study cohort, with a median of approximately 16 years of follow-up, found that in addition to reducing the incidence of CRC, polypectomy of individuals with adenomatous polyps resulted in 48% reduction in CRC-related mortality than the general population, to a level similar to that of individuals in the study without adenomatous polyps.[11]

Although evidence has supported the notion that baseline endoscopic findings and removal of adenomas appear to influence subsequent CRC risk, the influence of surveillance colonoscopy on CRC incidence has been less clearly understood. A large

cohort study from the United Kingdom sought to determine the influence of surveillance endoscopy among individuals following baseline polypectomy of intermediate-risk adenomas (1–2 adenomas larger than 10 mm or 3–4 small adenomas).[41] With a median of 8 years of follow-up, individuals with 1 to 2 surveillance procedures were nearly half as likely to be diagnosed with CRC than those without any surveillance.[41] Subgroup analysis of individuals without surveillance after baseline polypectomy revealed that individuals with large (20 mm) or high-grade adenomas or proximal polyps had a higher incidence of CRC than the general population, whereas CRC incidence was lower than the general population among those without those index features not undergoing surveillance.[41] An additional cohort study found that among individuals with advanced adenomas at baseline, exposure to one surveillance colonoscopy resulted in a CRC risk approaching the general population, whereas those without surveillance had a fourfold increased risk of CRC.[37] Among the group with LRAs at baseline, those with and without surveillance had reduced CRC risk than the general population.[37] Together, these studies demonstrate that the benefits for surveillance colonoscopy, at least with respect to CRC risk, appear to be limited to those with advanced adenomas at baseline. Those with LRAs at baseline are at reduced risk of CRC than the general population, with less certain incremental benefit from subsequent surveillance.

Metachronous Advanced Neoplasia Risk

Given the paucity of surveillance studies using CRC as an end point, a great deal of the evidence supporting surveillance intervals following polypectomy is derived from the studies of AN risk after polypectomy as a surrogate for CRC risk.[23,28,42–45] AN typically refers to a composite end point including advanced adenoma and/or CRC. Several studies have demonstrated that individuals with advanced adenomas at baseline are at greater risk of metachronous AN development than individuals with LRAs at baseline,[35,42,46–48] with about 20% of individuals developing high-risk neoplastic lesions on surveillance examinations, compared to 5% to 10% of those with low-risk findings at baseline.[46–48]

Although those with prior LRAs (1–2 adenomas <10 mm) are at the risk of development of recurrent polyps,[32,33] risk of AN in this population does not appear to be markedly elevated compared to those with no polyps at baseline, paralleling the trend seen for CRC risk with low-risk polyps. In a Korean cohort, 45% of those with LRAs developed recurrent polyps within 5 years of surveillance than 28% of those without baseline polyps, but rates of advanced adenoma at 5 years were similar between the 2 groups (2.4% and 2%, respectively).[35] Two large meta-analyses found a small absolute risk of metachronous AN development among individuals with LRAs at index colonoscopy than those with a normal index colonoscopy with up to 5 years of follow-up.[30,48] These findings informed the decision to expand surveillance intervals from 5 to 10 to 7 to 10 years following polypectomy for LRAs in the updated MSTF polyp surveillance guidelines.[23] Despite the strong evidence suggesting that those with LRAs are at similar, if not reduced risk, for CRC or AN than those without polyps, the observation that exposure to surveillance has the potential to reduce CRC risk further for those with LRAs[38] prevented a recommendation for 10-year surveillance in this group as is currently recommended for those without polyps.[23]

In comparison to the modest AN risk among those with baseline LRAs, the previously mentioned meta-analysis demonstrated a 17% AN risk within 5 years among those with advanced adenoma at baseline.[48] Cohort studies have demonstrated a 2 to 4-fold increased risk of metachronous AN in follow-up.[49,50] In addition to higher risk of recurrent AN compared to lower risk groups, those with baseline advanced

adenoma appear to develop high-risk lesions within shorter time intervals as well. Although Chung and colleagues found an advanced adenoma recurrence rate of 12.2% within 5 years for those with baseline advanced adenoma, they importantly found that the majority (9.6%) of recurrences were found within 3 years.[35] Furthermore, a model of cost-effectiveness of low-intensity surveillance (10 years for LRA and 5 years for HRA) versus high-intensity surveillance (5 years for LRA and 3 years for HRA) found that high-intensity surveillance resulted in modest clinical improvements in CRC incidence (in addition to other clinical parameters) at an acceptable cost.[51] These findings support the continued recommendation for short-interval initial surveillance following polypectomy for high-risk lesions.[23,28]

Intermediate-Risk (3–4<10 mm) Adenomas

Individuals with 3 or more small adenomas at baseline have been shown to be at increased risk of AN or CRC than those with fewer or no adenomas.[49,50,52–54] Whereas the 2012 guidelines placed individuals with 3 or more small (<10 mm) adenomas in the same risk category as individuals with HRA, recent work has demonstrated that individuals with these intermediate features at baseline have approximately half the risk of metachronous HRA on surveillance as those with HRA at baseline.[46] Furthermore, a large retrospective study found that individuals with 3 to 4 LRAs at baseline had a similar metachronous HRA risk as those with 1 to 2 LRAs at baseline, whereas the presence of any number of HRA at baseline resulted in increased metachronous HRA risk compared to those with 4 or less LRAs at baseline.[55] The large PLCO cohort further demonstrated that individuals with 3 to 4 nonadvanced adenomas had similar CRC risk and CRC-related mortality as those with 1 to 2 adenomas with more than 10 years of follow-up.[39] These data contributed to the recommendation that individuals with 3 to 4 small adenomas could undergo surveillance at a longer interval (3–5 years) than those with HRA at baseline (3 years).[23] Contributing to the rationale for prolonged interval surveillance for those with 3 to 4 adenomas is the hypothesis that attention to adenoma detection rate and wide adoption of high-definition colonoscopy has contributed to enhanced identification of small adenomas that may have previously been missed. Thus, those with 3 to 4 small adenomas in the current era may more closely resemble those with 1 to 2 small adenomas in a previous era.

Impact of Serial Surveillance For Adenomas

For individuals undergoing more than one surveillance colonoscopy, it is important to determine whether subsequent AN risk is perpetually influenced by baseline examination findings or whether the most recent surveillance examination findings are more informative of downstream AN risk, thus allowing recommendations for surveillance interval to "reset" with each colonoscopy. In a study of individuals with 2 surveillance colonoscopies after baseline polypectomy, individuals with baseline high-risk features but low-risk features on first surveillance had subsequent AN risk (11%) similar to an individual with baseline low risk features (12%).[47] Furthermore, in the 12% of low-risk baseline patients who had high risk features at first surveillance, subsequent AN risk was 18%, similar to AN risk at first surveillance for those with baseline high risk features.[47] Although these findings suggest that low-risk findings on surveillance colonoscopy are predictive of lower future neoplasia risk, a Korean study of individuals with at least 2 surveillance colonoscopies found that individuals with low-risk or high-risk polyps at baseline were 3 and 8 times more likely to harbor AN during their second surveillance colonoscopy as those with normal baseline examination, even when no polyps were found at first surveillance.[32] Together, these findings support continued intensive surveillance of individuals with any prior history of high risk

neoplasms despite lower risk findings at surveillance, whereas for those without history of high-risk lesions, findings at the most recent colonoscopy can likely safely inform future surveillance intervals. The updated MSTF polyps surveillance guidelines reflect these principles, with a recommendation for a minimum 5-year surveillance intervals for any individuals with a history of high-risk neoplasia.[23]

SURVEILLANCE AFTER POLYPECTOMY OF SSPs

In contrast to adenomatous polyps, about which a great deal is known about natural history, surveillance, and risk of CRC or advanced colorectal neoplasia, much less is known about the CRC or AN risk for serrated polyps, a heterogeneous group of lesions with related histology. Although it is well described that individuals with serrated polyposis syndrome are at increased risk of CRC (20%–30% lifetime),[56–59] literature describing CRC risk for serrated polyps is less robust, likely in part due to the historical under-recognition of their precancerous potential, subtle endoscopic findings, and heterogeneity among pathologists and endoscopists in reporting such lesions.[60–62] The malignant potential of SSPs in particular, which can be found in 5% to 10% of screening colonoscopies,[57] is increasingly recognized, while by comparison, hyperplastic polyps are felt not to confer an increased risk of CRC when diminutive and located in the rectosigmoid colon.[16,63–66] Surveillance after polypectomy for SSPs is thus generally recommended.[23]

Evidence is mounting that individuals with SSPs have a CRC risk that is similar to those with adenomatous polyps. A Danish case-control study found that compared to those without polyps, individuals with SSPs had a slightly higher CRC risk (OR 3.07) than those with adenomatous polyps (OR 2.50).[16] Although CRC risk was particularly elevated for SSPs with dysplasia (OR 4.76) or proximally located SSPs (OR 12.42), modest CRC case numbers resulted in wide estimates of risk.[16] A Norwegian cohort study demonstrated similar findings of comparable CRC risk between large serrated polyps and advanced adenomas.[67] Strikingly, 23 large serrated polyps (only 5 of which were hyperplastic polyps) were only biopsied and left in situ in the cohort, none of which developed into malignancy with median 11 years of follow-up.[67] This observed prolonged "dwell time" to carcinogenesis of SSPs compared to adenomas has been replicated by additional studies,[68,69] whereas others have suggested more rapid progression to invasive cancer, occasionally within months.[70,71] Accumulation of mutations and molecular changes may explain prolonged stability of SSPs over years followed by rapid progression to malignancy.[69] Thus, while serrated polyps appear to potentially be associated with elevated CRC risk, the exact mechanism of this association and its relation to the natural history of serrated polyps remains uncertain. For example, while specific serrated polyps may not progress to cancer, it is possible that the presence of serrated polyps may serve as a marker of field effect for at-risk colon for future carcinogenesis.

Studies of SSP surveillance using AN as an end point have demonstrated conflicting results. Some studies have demonstrated the increased risk of AN, particularly with large SSPs or lesions proximal to the splenic flexure.[66,70,72–74] A study of a large Chinese screening cohort found that the presence of SSPs conferred a similar risk of synchronous AN as the presence of LRAs, while the presence of large SSPs, but not the multiplicity of SSPs, was associated with even greater AN risk.[72] A smaller US study also demonstrated that SSPs (regardless of size) conferred significantly greater risk on metachronous AN than LRA alone with similar AN risk to HRA at baseline.[74]

The combination of serrated polyps and adenomas at baseline may increase the risk of neoplasia at surveillance than either lesion alone. In a large cohort, the presence of

SSPs alone at baseline was predictive of future large serrated polyps during surveillance but not of future HRAs. Synchronous SSP and HRA at baseline, however, resulted in nearly a fourfold increased risk of HRA in surveillance than those with just an HRA at baseline.[29] Additional studies have demonstrated the synergistic influence of SSPs and synchronous advanced adenomatous polyps on metachronous AN.[73–75] However, other studies with CRC as an end point have failed to provide evidence of this synergy.[16] Thus, SSPs appear to be a risk factor for future SSPs, but data demonstrating the risk of metachronous HRA or CRC with only SSP at baseline are weak and conflicting.

TSAs are the least common serrated polyp, comprising between 0.5% and 1.9% of all colorectal polyps.[76] Histologically, ectopic crypt foci distinguish TSA from SSP, and these lesions are more likely to occur in the distal colon.[76] Given their rarity, estimates of the malignant potential of TSA are lacking although previous reports have demonstrated high rates of dysplasia, and it is generally believed that they are premalignant lesions.[16,77] Evidence that up to half of TSAs appear to develop from microvesicular hyperplastic polyps or SSP as precursor lesions has led to a theory that TSA may represent a more advanced premalignant lesion on the serrated carcinoma pathway.[76] A Danish case-control study found that the presence of TSA was associated with a fourfold increased risk of future CRC than those without polyps, which was comparable to the risk of those with SSP with dysplasia and nearly double that of those with conventional adenomas.[16] An additional study found increased risk of AN among individuals with TSA than those with conventional adenomas.[78] These limited findings support the recommendation to pursue surveillance after the removal of TSA within 3 years, regardless of size. The data supporting this recommendation, however, are weak.[23]

INFLUENCE OF ENDOSCOPIC QUALITY PARAMETERS ON SURVEILLANCE

Increasing evidence has suggested failure to perform high-quality colonoscopy is a risk factor for interval CRC, which has prompted the description and adoption of quality benchmarks for colonoscopy including cecal intubation, adenoma detection, bowel prep, and polyp resection technique.[79,80] In a large pooled analysis of interval CRC cases, approximately 50% were thought to be caused by probable missed lesions,[81] for which endoscopist ADR, bowel prep quality, and withdrawal time are important factors. An additional 20% were likely related to incomplete resection or prior lesions,[81] highlighting the importance of preresection endoscopic inspection, resection technique, and postresection inspection. Additional studies have similarly shown that a small minority (5%) of metachronous CRCs are felt to arise from de novo lesions.[82] A large cohort study of more than 300,000 patients found that individuals with an endoscopist in the highest quintile of ADR were half as likely to develop or die from interval CRC as those with endoscopists in the lowest ADR quintile.[83] Moreover, each 1% increase in ADR was associated with 3% decreased risk of interval CRC.[83] An additional study found that the increase in ADR over time resulted in reduced interval CRC incidence and CRC-related mortality.[84]

Polypectomy technique is an important factor for subsequent neoplasia risk and thus for surveillance recommendations. A provocative study found that when adjacent tissue was biopsied after polypectomy, residual neoplastic tissue was found in 10% of polypectomies.[85] Incomplete resection was even higher for large (10–20 mm) polyps (17%) and SSPs (33%), with significant variability incomplete resection rates between endoscopists.[85] In an additional cohort, Brenner and colleagues found that incomplete polyp resection was among the most significant risk factors for incidence

CRC.[40] Further highlighting the importance of resection technique, a study of individuals undergoing surveillance after the resection of large (10–20 mm) polyps found that metachronous neoplasia arose from incomplete resection of 18% of nonpedunculated polyps.[86] Moreover, incomplete resection occurred in 29% of polyps removed piecemeal, compared to 9% of those removed en-bloc.[86]

Additional colonoscopy-related factors significantly influence neoplasia risk after polypectomy. In their large UK cohort, Atkin and colleagues demonstrated that among individuals with baseline polypectomy not undergoing surveillance, incidence of CRC was higher among those without high-quality baseline examination (complete colonoscopy with adequate bowel prep) than that of the general population, while for those with high-quality baseline examination, CRC incidence was lower than the general population.[41] A study from the Netherlands of surveillance colonoscopy after baseline polypectomy found that incomplete colonoscopy and inadequate bowel prep were associated with higher metachronous AN risk (threefold) than polyp size, multiplicity or high risk histologic features.[49] A Korean study similarly found poor bowel prep to be an independent risk factor for AN after polypectomy.[87] These findings support the notion that high-quality baseline examination influences subsequent neoplasia risk and that the ability to safely recommend an increased interval for surveillance is dependent on the quality of the index examination.

SURVEILLANCE FOR OLDER ADULTS

Decisions surrounding cancer screening in older individuals are complicated and must take into consideration cancer incidence, cost-effectiveness, and mortality benefit of screening in individuals with limited life expectancy. Cancer screening is even more complicated in this population when screening involves an invasive procedure as with CRC screening and colonoscopy. Although guidelines recommend the consideration of stopping screening for individuals at average risk of CRC at age 75,[21,88,89] guidance for continuing surveillance of older individuals with a history of polyps is notably lacking.[23] A retrospective study including individuals over the age of 75 undergoing surveillance colonoscopy found that age greater than 75 was associated with significantly lower risk of CRC in surveillance and was independently associated with increased risk of postprocedural complications resulting in hospitalization.[90] Moreover, older individuals are more likely to have incomplete colonoscopies because of inadequate bowel prep.[91] Given that most estimates suggest the progression from small adenoma to CRC takes at least 10 years,[92,93] it is generally not recommended to continue surveillance if a patient's life expectancy is not at least 10 years.[31] Multiple calculator tools exist to help quantify a patient's life expectancy based on comorbidities and to help weigh benefits and risks of given screening tests within that context, including for colonoscopy.[91] Understanding the limitations to surveillance colonoscopy in older individuals, in addition to considering prior polyp history and presence of significant comorbidities, is important when making a recommendation. Furthermore, it is critical to elicit patient understanding and values and to communicate recommendations to both patients and other stakeholder health care providers when coming to a shared decision to either continue or stop surveillance.[91]

SUMMARY

Greatly expanded literature over the past 2 decades have deepened our understanding of the risk of future polyps or CRC after polypectomy in addition to the influence of surveillance on these risks to allow for greater precision in surveillance colonoscopy recommendations. Resection of low-risk lesions is associated with reduced CRC

and AN risk than those not screened, whereas the resection of high-risk polyps identifies a group at elevated risk who benefit from intensive surveillance. A growing body of evidence suggests that serrated polyps, particularly SSPs, are premalignant lesions that should be treated similarly to adenomatous polyps. Increasing attention to colonoscopy quality has the potential to improve outcomes and strengthen recommendations for surveillance. Future directions for polypectomy surveillance include the incorporation of demographic, polyp-related, or genetic factors into models that could provide further precision for interval recommendations while more data are needed to inform surveillance in older adults (age >75) and in particular younger adults (age <50), a group undergoing colonoscopy with greater frequency and at increasing risk of CRC.

CLINICS CARE POINTS

- Individuals with 1 to 2 small adenomas can undergo surveillance colonoscopy in 7 to 10 years as opposed to the prior recommendation of 5 years.
- Individuals with 3 to 4 small adenomas should undergo surveillance colonoscopy in 3 to 5 years, rather than 3 years.
- Individuals with an HRA (greater than 1 cm in size, villous histology, or high-grade dysplasia) should undergo surveillance colonoscopy in 3 years.
- The decision to screen for CRC after the age of 75 should be individualized to each patient based on functional status, co-morbidities, and prior history of CRC or adenomatous polyps.

DISCLOSURE

The authors have no disclosures

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