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FOR DEBATE

Follow-up of small and diminutive colonic polyps—How to balance the risks in the COVID-19 era

The ScotCap Clinical Leads Collaboration

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Colonic polyps are common and frequently encountered during optical colonoscopy (OC) [1]. The association between adenomas of the large bowel and colorectal cancer (CRC) is well established [2]. Polypectomy is carried out when polyps are identified at OC, to reduce the risk of CRC developing [3]. The relative risk of adverse events is greater for those undergoing therapeutic OC compared with diagnostic OC, but the absolute risk remains low [4]. Overall, for most patients the benefits of polypectomy outweigh the risks.

Colonoscopy capacity in the United Kingdom has been reduced significantly due to the effects of the COVID-19 pandemic [5]. Clinicians are rightly concerned about the risk of a delayed diagnosis of CRC caused by prolonged waiting times for investigation, and the risk of COVID transmission to patients or staff involved in supporting invasive procedures. National efforts are being made to mitigate these risks [6–8]. This has led to a greater reliance on alternative colonic investigations, namely CT colonography (CTC) and colon capsule endoscopy (CCE). While accurate at detecting colonic pathology, these investigations will necessitate some patients undergoing follow-up endoscopic procedures to biopsy or treat pathology [9]. The use of the faecal immunochemical test (FIT) has also been advocated as an adjunct to clinical acumen to help triage patients, given its ability to determine the risk of patients harbouring significant bowel pathology [10–12]. CTC or CCE can therefore be used to reduce the risk of diagnostic delay in those with intermediate FIT results by providing additional diagnostic capacity [13].

Consequently, as the use of CTC and CCE increases, clinicians will more frequently have to determine how best to manage patients in whom polyps have been reported. Malignant pathology, or large polyps (≥10 mm), found by CTC or CCE, will inevitably require luminal assessment in an appropriate timeframe, provided that the patient is fit enough to undergo further investigation or therapeutics, in concordance with the principles of Realistic Medicine [14,15]. Patients with multiple polyps (≥5) are at greater risk of developing colorectal cancer in the future and therefore warrant OC to remove these, regardless of size [16. However, there is less consensus on the decision-making for intermediate polyps (6–9 mm) and diminutive polyps (<6 mm).

The published literature on intermediate polyps suggests that the risk of progression to malignancy over 3 years is extremely low and only 6% may progress to advanced adenomas (≥10 mm size, contain high-grade dysplasia or villous features) [17–19]. In a large series reported by Ponugoti et al., the majority of intermediate polyps showed no concerning features on histopathological assessment with only 0.8% found to have high-grade dysplasia and there were no cancers [20]. These results confirm that a minority of intermediate polyps will advance and, therefore, careful consideration on the need for removal is required when they are reported on CTC and CCE. For elderly patients, in whom significant colonic pathology has been excluded, removal of intermediate polyps is likely to be futile. For younger patients with intermediate polyps, delayed polypectomy should be considered. This would carry limited clinical risk and provide greater immediate utility of OC appointments for endoscopy units. The timeframe for intervention will depend on OC availability, but there is no evidence to suggest patients would be harmed by waiting up to 1 year.

Diminutive polyps are considered at a lower level of risk compared with intermediate polyps. National CTC guidelines advocate that diminutive polyps are not reported if detected [21]. In addition, there is an acceptance that low risk adenomas will be missed using FIT at a cut-off of 10 μg/g in symptomatic patients. Furthermore it has also been reported that the risk of subsequent CRC in this group is very low and safety netting is not being

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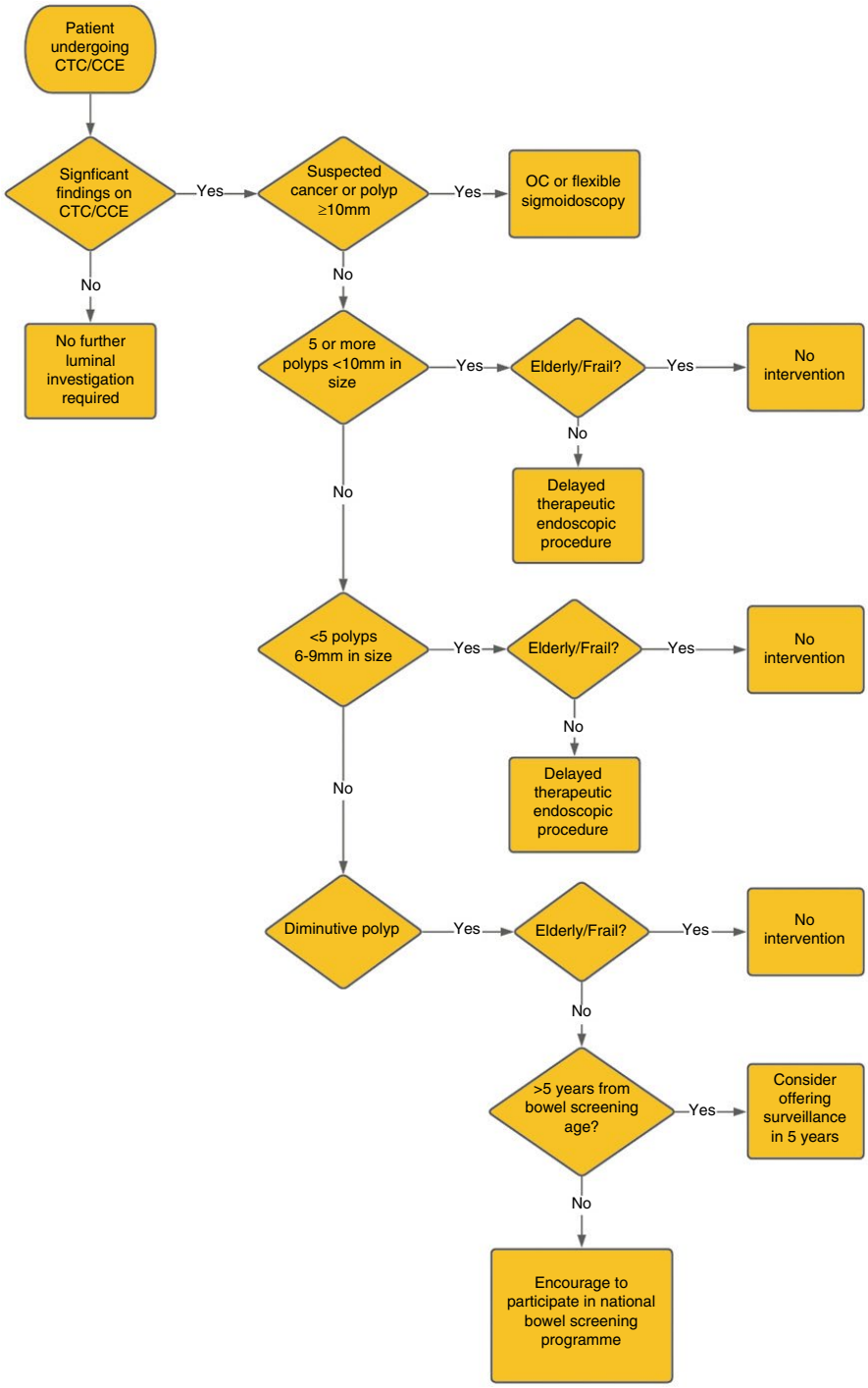

FIGURE 1 Suggested decision making tool for polyps

advocated [11]. Due to the nature of the test, CCE is much more likely to report diminutive polyps. Polypectomy for diminutive polyps in elderly patients is similarly difficult to justify given the low risk of the polyps progressing within the patients' lifetime. Younger patients with diminutive polyps should be encouraged to participate in a national bowel screening programme when invited; this will provide an adequate safety net. Clinicians may feel uncomfortable about leaving diminutive polyps in younger patients who are at least 5 years from the bowel screening age given the risk of progression in the longer term. Therefore, clinicians could consider offering surveillance OC within 5 years to minimize future risk.

A pragmatic approach to dealing with intermediate and diminutive polyps is therefore needed whilst the current focus of endoscopy resources is on the detection of CRC. The merits of timely polypectomy for intermediate and diminutive polyps seem low, particularly in the current circumstances. Delayed polypectomy would seem appropriate for those patients with intermediate polyps, giving endoscopy units greater flexibility in scheduling appointments, akin to providing a bar in a busy restaurant – it will

help flow. This strategy, however, assumes that the current endoscopy backlogs are reduced and further capacity will be generated in the future. For polyps <6 mm, a clinical consensus is needed to support decision-making and we propose a pragmatic algorithm (Figure 1). This approach is commensurate with the principle of Realistic Medicine and would enable a shift in clinical practice away from a "zero risk" policy for all, which is becoming increasingly difficult to resource, towards one which more appropriately prioritises resource for those patients in the highest risk groups and who have the most to gain from interventions – an approach which should deliver better and more appropriate clinical care for all patients [15].

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CONFLICT OF INTEREST

We declare no conflicts of interest related to this article.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analysed in this study.

REFERENCES

1. Hassan C, Pickhardt PJ, Kim DH, Di giulio E, Zullo A, Laghi A, et al. Systematic review: Distribution of advanced neoplasia according to polyp size at screening colonoscopy. Aliment Pharmacol Ther. 2010;31(2):210–7. https://doi.org/10.1111/j.1365-2036.2009.04160.x
2. Fearon ER, Vogelstein B. A genetic model for colorectal tumorigenesis. Cell. 1990;61(5):759–67. https://doi.org/10.1016/0092-8674(90)90186-I
3. Zauber AG, Winawer SJ, O'Brien MJ, Lansdorp-Vogelaar I, van Ballegooijen M, Hankey BF, et al. Colonoscopic polypectomy and long-term prevention of colorectal-cancer deaths. N Engl J Med. 2012;366(8):687–96. https://doi.org/10.1056/NEJMoa1100370
4. Reumkens A, Rondagh EJA, Bakker CM, Winkens B, Masclee AAM, Sanduleanu S. Post-colonoscopy complications: a systematic review, time trends, and meta-analysis of population-based studies. Am J Gastroenterol. 2016;111(8):1092–101. https://doi.org/10.1038/ajg.2016.234
5. NHS England. Clinical Guide for the Management of Patients Requiring Endoscopy during the Coronavirus Pandemic; 2020.
6. An Update to Information and Guidance for Endoscopy Services in the COVID-19 Pandemic | The British Society of Gastroenterology. https://www.bsg.org.uk/covid-19-advice/an-update-to-information-and-guidance-for-endoscopy-services-in-the-covid-19-pandemic-2/. Accessed February 4, 2021.
7. NHS Diagnostic Waiting Times and Activity Data NHS England and NHS Improvement 2 NHS Diagnostic Waiting Times and Activity Data August 2020 Monthly Report; 2020.
8. Clinical Guidance on the Use of Faecal Immunochemical Testing (FIT) in the Prioritisation of Patients with Colorectal Symptoms. https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2020/07/coronavirus-covid-19-guidance-for-use-of-fit-testing-for-patients-with-colorectal-symptoms/documents/coronavirus-covid-19-guidance-for-use-of-fit-testing-for-. Accessed February 15, 2021.
9. González-Suárez B, Pagés M, Araujo IK, Romero C, Rodríguez de Miguel C, Ayuso JR, et al. Colon capsule endoscopy versus CT colonography in FIT-positive colorectal cancer screening subjects: a prospective randomised trial - The VICOCA study. BMC Med. 2020;18(1):255. https://doi.org/10.1186/s12916-020-01717-4
10. Mowat C, Digby J, Strachan JA, Wilson R, Carey FA, Fraser CG. Faecal haemoglobin and faecal calprotectin as indicators of bowel disease in patients presenting to primary care with bowel symptoms. Gut. 2016;65(9):1463–9. https://doi.org/10.1136/gutjnl-2015-309579
11. Mowat C, Digby J, Strachan JA, McCann R, Hall C, Heather D, et al. Impact of introducing a faecal immunochemical test (FIT) for haemoglobin into primary care on the outcome of patients with new bowel symptoms: a prospective cohort study. BMJ Open Gastroenterol. 2019;6(1):e000293. https://doi.org/10.1136/bmjgast-2019-000293
12. Suspected Cancer. Recognition and Referral NICE Guideline - Updated 29 January 2021; 2015. www.nice.org.uk/guidance/ng12. Accessed February 22, 2021.
13. MacLeod C, Wilson P, Watson AJM. Colon capsule endoscopy: an innovative method for detecting colorectal pathology during the COVID-19 pandemic? Color Dis. 2020;22(6):621–4. https://doi.org/10.1111/codi.15134
14. Rutter MD, Chattree A, Barbour JA, Thomas-Gibson S, Bhandari P, Saunders BP et al. British society of gastroenterology/association of coloproctologists of Great Britain and Ireland guidelines for the management of large non-pedunculated colorectal polyps. Gut. 2015;64(12):1847–73. https://doi.org/10.1136/gutjnl-2015-309576
15. Chief Medical Officers. Personalising Realistic Medicine - Chief Medical Officers Annual Report. 2017–2018; 2018. https://www.gov.scot/publications/personalising-realistic-medicine-chief-medical-officer-scotland-annual-report-2017-2018/
16. Atkin W, Wooldrage K, Brenner A, Martin J, Shah U, Perera S, et al. Adenoma surveillance and colorectal cancer incidence: a retrospective, multicentre, cohort study. Lancet Oncol. 2017;18(6):823–34. https://doi.org/10.1016/S1470-2045(17)30187-0
17. Vleugels JLA, Hazewinkel Y, Fockens P, Dekker E. Natural history of diminutive and small colorectal polyps: a systematic literature review. Gastrointest Endosc. 2017;85(6):1169–76.e1. https://doi.org/10.1016/j.gie.2016.12.014
18. Hoff G, Foerster A, Vatn MH, Sauar J, Larsen S. Epidemiology of polyps in the rectum and colon: recovery and evaluation of unresected polyps 2 years after detection. Scand J Gastroenterol. 1986;21(7):853–62. https://doi.org/10.3109/00365528609011130
19. Mizuno KI, Suzuki Y, Takeuchi M, Kobayashi M, Aoyagi Y. Natural history of diminutive colorectal polyps: long-term prospective observation by colonoscopy. Dig Endosc. 2014;26:84–9. https://doi.org/10.1111/den.12263

20. Ponugoti PL, Cummings OW, Rex DK. Risk of cancer in small and diminutive colorectal polyps. Dig Liver Dis. 2017;49(1):34–7. https://doi.org/10.1016/j.dld.2016.06.025
21. Blunt D, Britton I, Chew C, Helbren E, Katz J, Lowe A, et al. British Society of Gastrointestinal and Abdominal Radiology CT colonography standards. British Society of Gastrointestinal and Abdominal Radiology; 2020. https://www.bsgar.org/static/uploads/Draft2020BSGARCTcolonographystandards(March2020).pdf. Accessed February 4, 2021.

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