







Developing a prioritization model for endoscopy and colorectal cancer 2-week wait referrals during the COVID-19 pandemic—is faecal immunochemical testing the answer?

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Editor

The COVID-19 pandemic has strained healthcare resources including gastrointestinal (GI) endoscopy¹. The British Society of Gastroenterology (BSG) recommended a pause on outpatient GI endoscopy during the pandemic², with numbers in the UK dropping to 5 per cent of their previous level³, but have issued advice to support recovery⁴. Highlighting the relative risks of COVID-19 transmission against missed or delayed cancer diagnoses, this more recent advice has led to careful triage of procedures that were postponed during the pandemic. Within our trust, outstanding 2-week wait (2WW) endoscopies were risk-stratified using faecal immunochemical testing (FIT) alongside service outsourcing³. The effects of this approach require further evaluation.

This single-centre prospective study included all outstanding endoscopy from 2WW colorectal cancer referrals by 2 June 2020 and FIT sampling kits distributed to patients. Demographic, biochemical and endoscopic data were collected from patients' electronic healthcare records, including date of referral, and FIT and endoscopy results. Diagnosis of colorectal cancer was confirmed histologically. Outcomes included: time to diagnostics, cancer yield, uptake of FIT, and results. Continuous variables were tested for normality using the D'Agostino–Pearson test, with results displayed as mean or median values with 95 per cent confidence intervals. Data analysis was performed using Prism[®] 8.4.2 (GraphPad, La Jolla, CA, USA). Two-tailed *P* values were reported to three decimal places and *P* < 0.050 was considered significant.

A total of 102 patients were included (median age 61 (95 per cent c.i. 58 to 64) years; 48.0 per cent men), of whom 66

completed FIT. Some 14 patients did not undergo endoscopy despite invitation, either through refusal or non-attendance. Of the remaining 88 patients, 81 had completed investigation by 12 August 2020. The median endoscopy wait time was 87 (95 per cent c.i. 82 to 93) days. Six patients were diagnosed with colorectal cancer, 26 with polyps, and five with inflammatory bowel disease. A total of 48 individual polyps were identified, of which 34 were tubular or tubulovillous adenomas (TVAs) with low-grade dysplasia, one was TVA with high-grade dysplasia, three were sessile serrated adenomas, and 10 were hyperplastic polyps. Polyps ranged from 1 to 30 mm in size (32 were smaller than 10 mm and 16 were 10 mm or more). Only one patient diagnosed with colorectal cancer had completed FIT (with a result of 120 µg/g). The FIT result was significantly higher in the presence of neoplasia (12.5 µg/g versus 6 µg/g in the absence of neoplasia; *P* = 0.001).

2WW referrals continue to increase, with only 55 per cent of centres meeting national targets⁵. National Health Service Trusts are burdened with investigating the backlog of referrals in a timely manner. The National Institute for Health and Care Excellence (NICE) FIT study demonstrated that FIT in high-risk patients can reduce the burden on endoscopy units while maintaining a high sensitivity for colorectal cancer⁶. This has led to the implementation of guidelines in Scotland to use FIT results in triaging patients during different phases of the pandemic⁷. Following our experience, we created a prioritization model for 2WW referrals (Fig. 1), working with primary care services to prioritize patients into three categories: P1, most urgent; P2, moderate urgency; and P3, less urgent (with FIT results of more than 100, 10–100 and less than 10 µg/g respectively). This model placed 11, 16 and 73 per cent of the study cohort into categories P1, P2 and P3 respectively. Within the P3

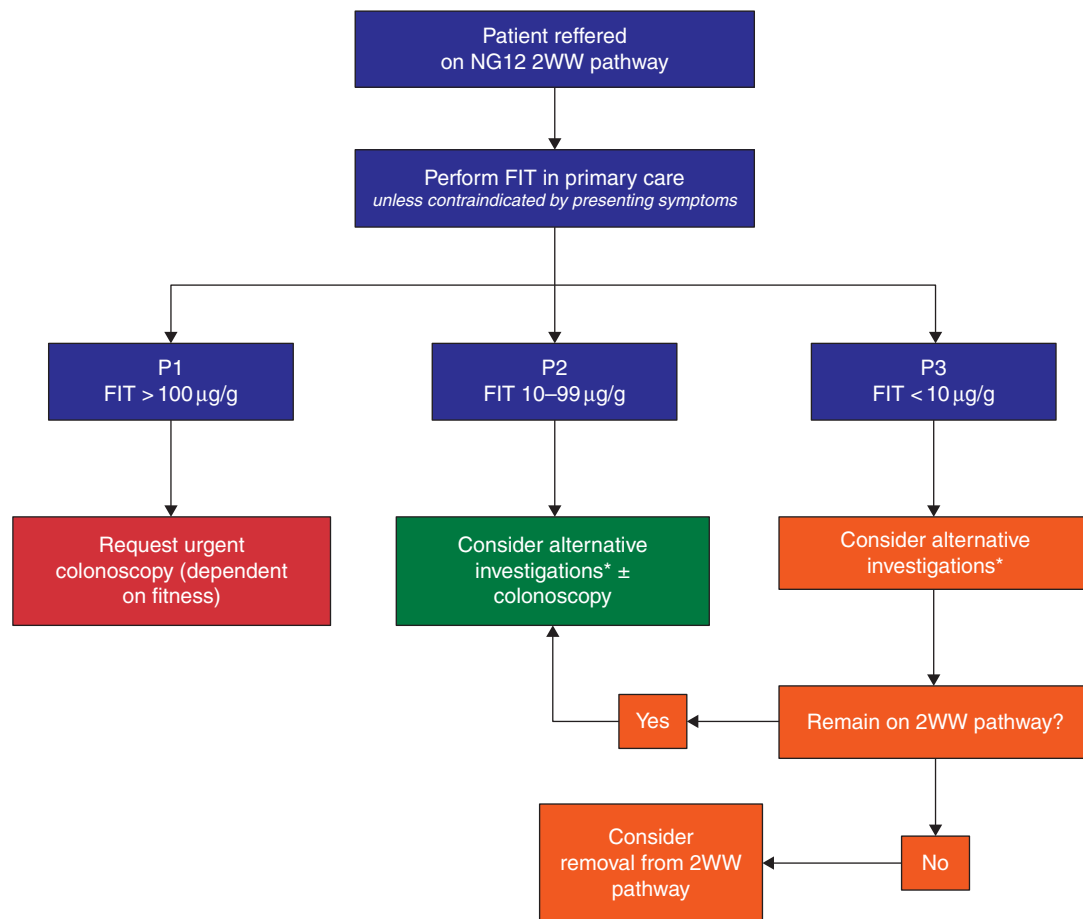


Fig. 1 Proposed faecal immunochemical testing-based triage pathway for colorectal cancer 2-week wait referrals

Schematic demonstrating the patient pathway to colorectal cancer investigation through primary and secondary care using faecal immunochemical testing (FIT) and NICE NG12 criteria to facilitate triage. *May include CT of the abdomen and pelvis or CT colonography/colon capsule endoscopy where the likelihood of conversion to colonoscopy is considered to be low. 2WW, 2-week wait.

group, there remains deliberation regarding further management. Those who do not meet NICE NG12 criteria may be managed in primary care. Options for further secondary care investigations may be based on presenting symptoms or iron-deficiency anaemia⁷, and may include triage to non-2WW pathways or alternative investigations outside endoscopy units. Patients with predominant constipation without rectal bleeding may benefit from definitive CT colonography without requiring conversion to colonoscopy, further reducing the burden on endoscopy units. Long-term results following implementation of these models will help evaluate the effect on wait times for 2WW endoscopy and maintain high sensitivity for colorectal cancer.

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