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# The Effectiveness of a Rapid-Access Flexible Sigmoidoscopy Clinic in a District Hospital

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**Historically rapid-access colorectal clinics have had high proportions of nonconforming referrals from primary care physicians, which calls into question the clinics' efficacy. We aim to determine the effectiveness of our rapid-access flexible sigmoidoscopy clinic, and the adherence to the referral guidelines for suspected bowel cancer by general practitioners. We performed a 3-month retrospective audit to evaluate (1) the proportion of patients seen within 2 weeks, (2) the appropriateness of referrals, (3) the proportion of patients with findings, and (4) the proportion of patients who had further tests. A total of 59 patients (19 male, 40 female; age 35–86 years) were included in the study. All were offered an appointment within 2 weeks. Forty-one cases (82%) were appropriate referrals. Twenty-eight patients (47%) had pathology at sigmoidoscopy. Cancer pick-up rate was 6%. Thirty-seven patients (74%) had further investigations. We determined that our rapid-access clinic for symptomatic patients has high diagnostic accuracy and that access to early investigation is being used appropriately by general practitioners. In the current climate of spending cuts and streamlining services, our study confirms we are meeting targets for delivery of our colorectal service. The majority of referrals under the 2-week rule are appropriate. Rapid access to early investigation is being used appropriately by general practitioners contrasting previous studies with high proportions of nonconforming referrals.**

*Key words*: Rapid access – Department of health – Colorectal cancer – Screening – Flexible sigmoidoscopy

Efforts to improve diagnostic and treatment services for colorectal cancer (CRC) have been implemented in the National Health Service (NHS) since the early 1990s. The NHS Bowel Cancer Screening Programme focusing on occult fecal tests has been piloted, assessed, and rolled out on a national level.[1,2]

Recommendations from the Department of Health of a maximum 2-week wait for initial specialist assessment of all urgent general practitioner (GP) referrals with suspected cancer led to the restructuring of colorectal services and the widespread establishment of dedicated rapid-access

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flexible sigmoidoscopy clinics in hospitals across the United Kingdom.[3,4] Evidence-based reviews for stratifying CRC risk have further contributed to the outline of current referral protocols for patients with high-risk symptoms.[5]

Over the past decade, the service has significantly evolved, as a result of considerable work examining its effectiveness and efficiency. Various authors have commented positively on the suitability and safety of the use of flexible sigmoidoscopy in establishing a diagnosis of distal colonic pathologies and excluding carcinoma,[6,7] while others have highlighted the need for flexible sigmoidoscopy in order for a one-stop service to be effective and safe.[8,9]

Queen Mary's Hospital (QMH) is a District General Hospital (DGH) situated in Kent and serving a population of approximately 300,000. Since its establishment, the rapid-access flexible sigmoidoscopy clinic averages 250 patients per year. There is a consultant-led dedicated endoscopy session each week. The majority of referrals come through primary care physicians, with some cases directly referred from the Trust's Emergency Department.

This study aimed to determine the efficacy of the rapid-access flexible sigmoidoscopy clinic in meeting the 2-week target from referral to preliminary assessment, including an assessment of the pathologies found, and the adherence to the Department of Health's referral guidelines for bowel cancer by GPs.

## Methods

After approval from the Trust's audit and data protection officers, a retrospective search of the database of the rapid-access flexible sigmoidoscopy clinic at QMH was performed. All referrals to the unit within a 3-month period (March 2009 to May 2009) were included in the study.

For all cases included in the study, authors collected and reviewed clinical notes, referral letters, standardized clinic outcome summaries, and all relevant investigations and histopathology reports. All patients followed an established protocol. Upon arrival to the Day Case Unit, a standard history was taken and a clinical examination was performed by either a consultant or specialist registrar in general surgery who subsequently performed a flexible sigmoidoscopy (using a standard colonoscope). Bowel preparation consisted of a phosphate enema given following the consultation. A follow-up plan was formulated upon the discretion of the treating physician as dictated by history and findings.

Based on the information collected, we evaluated (1) the proportion of patients seen within 2 weeks of referral, (2) the appropriateness of referrals according to the 2-week rule criteria, (3) the proportion of patients with positive findings, and (4) the proportion of patients who went on to have further diagnostic tests.

## Results

### *Demographics*

Between March and May 2009, 59 referrals were received, and all (100%) were offered an appointment within a 2-week period. Fifty patients (85%) attended as scheduled, with the remaining patients either failing to attend their appointment or rescheduling.

From the 50 cases reviewed, 34 were female (68%). The median age was 70 years, and this was similar for both sexes (male: median age, 70 years; range, 48–86; female: median age, 70 years; range, 35–86). The majority of patients were Caucasian (72%), followed by Afro-Caribbean (10%), Asian (14%), and other/mixed race (4%).

### *Referrals*

Forty-nine cases (95%) were referred from primary care physicians, whereas one case was directly referred from our Emergency Department. All referrals were made using a standardized primary care Colorectal Urgent Suspected Cancer Referral.

Table 1 shows the number of patients referred by referral criteria, with a change in bowel habit to looser stools being the most common reason for referral (52%) followed by rectal bleeding (30%). Following consultation in the unit prior to the procedure, symptoms in keeping with referral under the 2-week rule were confirmed in 41 cases (82%).

### *Findings*

Figure 1 summarizes the findings at flexible sigmoidoscopy. No obvious pathology was identified in 14 patients (28%). The most common finding was diverticular disease identified in 19 patients (38%), followed by hemorrhoids in 6 patients (12%), and colitis/proctitis in 4 patients (8%). Four patients (8%) were found to have adenomatous polyps, while 3 (6%) had malignant tumors.

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*Table 1 Numbers referred per category of primary care pro forma*

| Referral criteria | No. of patients |
|---|---|
| A: Aged ≥40, PR bleed and change in bowel habit to looser stools and/or increased frequency persisting for 6 weeks or more | 15 |
| B: Aged ≥60, with change in bowel habit to looser stools and/or more frequent stools persisting 6 weeks or more | 26 |
| C: Aged ≥60 with rectal bleeding persisting 6 weeks or more without anal symptoms (*e.g.*, itching, discomfort, soreness, lump, prolapse, pain) | 6 |
| D: Of any age with a palpable rectal mass (intraluminal and not pelvic) | 1 |
| E: Unexplained iron deficiency anemia and hemoglobin: Hb <11g/dL (men of any age) or <12 g/dL (nonmenstruating women) | 2 |

*Further investigations*

Thirty-seven patients (74%) were referred for further investigations (Fig. 2). Nineteen patients underwent computed tomography (CT) of the abdomen and pelvis (A/P); 15 had a colonoscopy; 2 had a barium enema; 1 underwent a staging CT of the chest, abdomen, and pelvis (C/A/P) and a colonoscopy; 1 had a staging CT C/A/P, magnetic resonance imaging (MRI) of the pelvis, and a colonoscopy; and 1 had an oesophagogastroduodenoscopy (OGD). Of these, no new pathology was found in 36 patients (97%). One patient (3%) was found to have a sessile polyp in the transverse colon at colonoscopy.

## Discussion

From the results obtained in our study, it is clear that current provisions are adequate for our unit to provide a safe and sustainable rapid-access service demonstrated by meeting the 2-week target in all cases. The majority (82%) of referrals met the criteria for assessment in the rapid-access clinic, indicating that primary care physicians are making appropriate use of resources by means of an established referral pathway and the use of a referral pro forma. In contrast, Smith *et al*[9] and Debnath *et al*[10] found that there was a very high proportion of nonconforming referrals (50%–62%). The reason for the high conformity of referrals in our unit may be due to a well-established and open relationship with GP practices, with the rapid access clinic now running for more than 15 years. In addition, it indicates increased education and awareness of GPs to utilize hospital resources appropriately and responsibly.

The overall cancer pick-up rate was 6%. This figure is in concordance with the estimate from Referral Guidelines for Bowel Cancer[5] that projected a diagnostic yield of between 5% and 10% using the high-risk referral criteria. Smith *et al*[9] published a large series from Royal Liverpool University Hospital with similar cancer pick-up rates. Our study also demonstrated that a high percentage of appropriate referrals had underlying pathologies

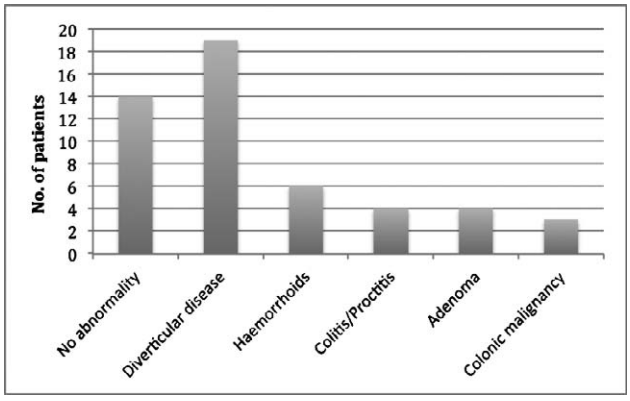


**Fig. 1** Findings at flexible sigmoidoscopy.

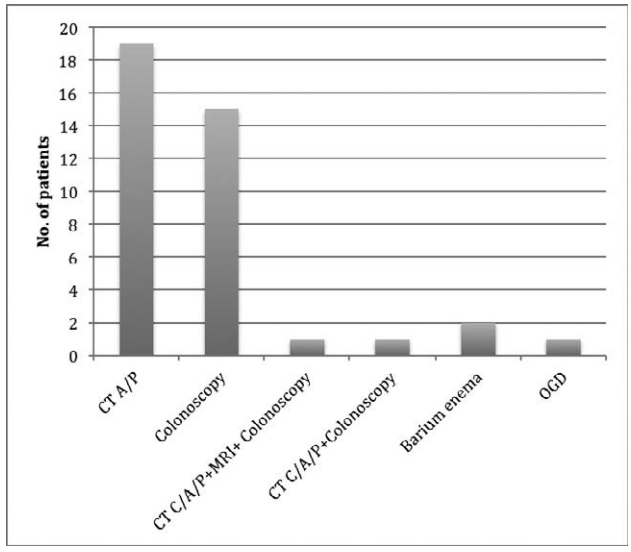


**Fig. 2** Further investigations following initial consultation.

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(72%), which were identified and addressed. Goodfellow *et al*[11] encountered similar diagnostic yields when auditing their service in a District General Hospital. Their service is nurse led by trained, specialist, endoscopy nurses, and they have demonstrated this to be safe and to further increase the cost-effectiveness of the service. In contrast, a large-scale 6-year prospective analysis of a "one-stop" rectal bleeding clinic in Adelaide found much lower cancer pick-up rates (0.85%), and only 38.6% went on to have completion investigations of the colon.[12]

In our study, a significant proportion of patients (74%) went on to have further investigations as a means of establishing a diagnosis as well as for staging and treatment-planning purposes. Lim *et al*[13] examined a large series of patients attending their "one-stop" service using similar inclusion criteria to ours. They argued that in the context of a rapid-access clinic, flexible sigmoidoscopy is safe and effective as a primary investigative tool, but they commented on the high percentage of patients (80%) who went on to have further investigations, deeming the cost-effectiveness of this process is unclear. In the vast majority of our cases (97%), no further pathology was identified. This would suggest that flexible sigmoidoscopy yields a high diagnostic accuracy.

Certain units have different policies where stratification of presenting symptoms focuses on low-risk patients with exclusion of high-risk patients, aiming to improve utilization of resources.[8] Thompson[14] attempted to improve the effectiveness and efficiency of a selection process for the management of low- and high-risk patients, by documenting the predictive and diagnostic values of individual signs and symptoms. Toomey *et al*[15] demonstrated that in the context of a "one-stop" policy, the use of flexible sigmoidoscopy is essential for all patients to avoid missed cases and delayed diagnosis of CRC. We demonstrate that the combination of appropriate referral guidelines together with a rapid-access flexible sigmoidoscopy clinic is effective in our practice.

Ultimately, the objective of any rapid-access clinic for suspected cancer is to diagnose and manage disease at an earlier stage in the hope of improving survival. Whether the use of 2-week rule clinics has a positive effect on early diagnosis of CRC and subsequent survival rates and outcomes has been challenged.[9,16] This assumption was based on evidence that screening for CRC reduces mortality, therefore implying that early diagnosis confers an advantage on survival.[17] As early as 20 years ago, studies suggested a beneficial effect of a single flexible sigmoidoscopy as a screening tool for CRC.[18] Recently, Atkin *et al* conducted a large, multi-center, randomized, controlled trial concluding that the advent of flexible sigmoidoscopy as a screening tool has substantial and long-standing benefits. It seems increasingly likely that only an effectively run national screening program will improve survival in the long term.[20]

## Conclusions

We confirm that our rapid-access flexible sigmoidoscopy clinic for symptomatic patients who meet the 2-week wait criteria for referral has high diagnostic accuracy and is an efficient use of hospital resources. In addition, we have shown that the majority of patients referred under the 2-week rule were appropriate, and that general practitioners are using rapid access to early investigation appropriately.

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