

Referral of suspected colorectal cancer: have guidelines made a difference?

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SUMMARY

In the United Kingdom, patients with colorectal symptoms referred on the fast-track pathway into secondary care are offered investigation of their symptoms within 2 weeks. Audits demonstrate that a minority of patients with colorectal cancer are referred under this arrangement. We assessed referral letters to hospitals in one district in the period before and after the introduction of the 2-week wait initiative. The guidelines appear to have made little difference to the proportion of cases selected for referral on the urgent pathway. However, cancers in the earliest stages present with fewer clinical features than advanced disease and a combination of signs and symptoms are more likely to arouse suspicion in the referring agent.

Keywords: colorectal cancer; guidelines; referral.

Introduction

GENERAL practitioners (GPs) have been able to request urgent investigation of patients with a possible malignancy in '2-week' clinics since April 2000. Access to these clinics is guided by the United Kingdom (UK) *Referral guidelines for suspected cancer*.¹ It was hoped that these guidelines would identify 90% of colorectal cancers,² but audits suggest that this is unrealistic.³⁻⁵ One potential disadvantage of a streamlined referral route is that patients referred outside it may suffer undue delays. We reviewed information available in referral letters of patients with a colorectal cancer, to determine the proportion of cases meeting the criteria for urgent referral, the proportion actually referred urgently, and to identify features in the referral letters that may have influenced the choice of referral pathway.

Method

All 361 cases of colorectal cancers registered with GPs in Exeter Primary Care Trust (population 132 000) from January 1998 to September 2002 were identified as part of a study examining the GP records for pre-diagnostic clues to a malignant diagnosis. A random selection of 200 was made, and the referral pathway determined and referral letter (if any) extracted. The referral letter was written up to 7 months before diagnosis. Emergency admissions ($n = 17$), referrals other than to colorectal surgery or gastroenterology ($n = 16$) and coincidental diagnoses ($n = 3$) were excluded. In four cases a referral letter could not be found, even though appropriate referral had apparently been made. Thus, 160 referral letters for investigation of possible colorectal cancers were available for study.

The content of the referral letters were analysed using a validated tool.⁶ This lists features of colorectal disease believed important to be recorded in a referral. These are shown in Box 1. Letters were scored independently with any differences resolved by consensus. From the clinical description in the letter it was assessed whether the patient qualified for an urgent referral under the UK guidelines.

The actual urgency of the referral, as chosen by the GP, was identified. Where no level of urgency was indicated the referral was assumed to be routine. We used June 2000 as the date on which the UK guidelines were disseminated and the fast-track referral pathway introduced.

Results

The mean age of the 160 patients was 69.5 years (standard deviation = 10.5 years): there were 85 (53%) men and 75 (47%) women. Eighty (50%) of the cancers had Duke's A or B staging, and 58 (36%) had Duke's C or D staging. Staging was unknown in 22 (14%) patients. Of the 160 referrals with

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HOW THIS FITS IN*What do we know?*

Prior to the publication of national guidelines in 2000 most colorectal cancers were referred non-urgently by general practitioners. The proportion referred urgently was expected to rise.

*What does this paper add?*

Little, or no increase in urgent referral has arisen, but this may represent the fact that many colorectal cancers do not meet the criteria for urgent referral. Urgent referrals outside the guidelines can be appropriate.

letters, 113 (71%) satisfied the criteria for urgent referral, yet only 63 (39%) were referred urgently. Differences between referrals before or after the introduction of the 2-week wait guidelines are illustrated in Table 1.

Urgent referral was more likely when the criteria listed in the guidelines were met: 113 referrals satisfied the criteria, with 63 patients referred urgently; 41 were outside the criteria, with 7 referred urgently, $P < 0.001$ (χ^2 -test). Urgent referral was associated with the number of features of colorectal disease documented in the letter; in urgent cases median = 4 (interquartile range [IQR] = 1) features compared with median = 2 (IQR = 2) for routine cases, $P < 0.001$ (Mann-Whitney U test). Cancers with either Duke's A or B staging had fewer documented features of bowel disease; median = 2 (IQR = 1.75) features for Duke's A or B staging compared to median = 3 (IQR = 2) for Duke's C and D staging together, $P = 0.04$ (Mann-Whitney U test).

Discussion

This study suggests that the 2-week clinics and guidelines have had little impact on the proportion of colorectal cases referred urgently. However, our study comes from a single district, and was not powered to identify small changes in referral behaviour. Furthermore, we only studied the referral letter, and it may be that some GPs simply use the letter to obtain a referral and do not feel it is necessary to document all clinical details. Nonetheless, two audits performed after the introduction of guidelines have shown similar results.^{5,7} In Nottingham 62% of 124 cases of colorectal cancer were diagnosed outside the 2-week clinics,⁷ and in Portsmouth, in a audit during the first year of the guidelines, 74% of 249

- Rectal bleeding
- Change in bowel habit (usually diarrhoea)
- Weight loss
- Iron deficiency anaemia
- Rectal mass
- Abdominal mass
- History of inflammatory bowel disease
- History of colorectal polyps or signs of colorectal cancer on previous investigation
- Tenesmus
- Family history of colorectal cancer
- General practitioner's opinion that patient has colorectal cancer
- Mucus per rectum
- Abdominal pain

Box 1. Features of importance in colorectal cancer identified by general practitioners.⁶

cases of colorectal cancer were diagnosed by a route other than the 2-week clinics.⁵ The proportion of cancers referred urgently before the introduction of the guidelines was not reported in either of these studies.

Our findings are important for both GPs and for policy makers. The message for GPs is that some patients are not being referred urgently when they could be. It is often difficult for a GP to decide which patient requires urgent referral as most symptoms of colorectal cancer can also arise from benign conditions.⁸ Forty-one patients with cancer had a presentation that fell outside the referral guidelines, yet their GP still referred them for investigation of cancer. This shows that GPs can ignore guidelines successfully at times, so it is no surprise that they ignore them unsuccessfully at times too. The message is different for policy makers. It is clear that many cases of colorectal cancer will not enter the system through the 2-week clinic. Therefore, it is important that the 'routine' system is maintained. Indeed, as cancers with an atypical presentation — some of which will be early cancers — are more likely to take this route, it is possible that resources need to be returned to this pathway.

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Table 1. Referrals made before and after the introduction of national cancer guidelines for colorectal cancer.

Characteristic	June 1997–June 2000 (n = 92) ^a	June 2000–September 2002 (n = 65) ^a	Difference in proportions (95% CI)	P-value
Mean age in years (SD)	69.8 (10)	69.3 (11)	-	0.79 ^b
Number of men (%)	51 (55)	32 (49)	6.2 (-9.4 to 21.5)	0.5 ^c
Patients referred urgently (%)	38 (41)	32 (49)	-7.9 (-23.1 to 7.7)	0.33 ^c
Satisfied criteria for urgent referral (%)	64/89 (72)	48/64 (75)	-3.1 (-16.6 to 11.3)	0.67 ^c
Satisfied criteria and had urgent referral (%)	35/64 (55)	27/48 (56)	-1.6 (-19.4 to 16.6)	0.87 ^c
Did not satisfy criteria and had urgent referral (%)	2/25 (8)	5/16 (31)	-23.2 (-48.3 to 0.008)	0.09 ^d
Duke's A or B cancer (%)	49/87 (56)	31/50 (62)	-5.7 (-21.7 to 11.4)	0.52 ^c

^aThree letters were undated. ^bt-test; ^c χ^2 -test; ^dFisher's exact test. SD = standard deviation

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