

THE EARLY DETECTION OF COLORECTAL CANCER IN PRIMARY CARE

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GUIDANCE FOR GENERAL PRACTITIONERS AND HEALTH AUTHORITIES

This guidance for general practitioners and purchasing authorities is intended to:

- Heighten awareness of the problem of colorectal cancer (CRC)
- Provide guidance on the early detection of CRC
- Present evidence on population screening for CRC and screening in high-risk groups, including individuals with a family history of colorectal or endometrial cancer.

COLORECTAL CANCER

Colorectal or large bowel cancer (CRC) is the sixth most common cause of mortality and the second commonest cause of cancer mortality in the UK. Each year there are almost 31,000 new cases of CRC resulting in approximately 19,000 deaths in the UK. 1 Each general practitioner (GP) in the UK will see an average of one new case of CRC each year. The population risk of developing CRC is 1:35 and of dying from it 1:50.

Genetic factors are important. 2 3 About 6% of patients with CRC have a major genetic susceptibility (e.g. familial adenomatous polyposis and hereditary non polyposis colon cancer) due to a single gene; 10% of cases of CRC have a first degree relative with the disease and 2% have two affected first degree relatives, suggesting that other less penetrant genes are involved. Genetic causes are more common in younger patients.

Early and accurate diagnosis is important for five-year survival and also results in less complicated surgery. At present less than 10% of cases of CRC are at Duke's Stage A at diagnosis. Overall 5 year survival in England is 35%, lower than in many other European countries.

Modified Dukes' Classification		
	Definition	5 year survival
Dukes' A	Localised within bowel wall	83%

Dukes' B	Penetrates bowel wall	64%
Dukes' C	Spread to lymph nodes	38%
Dukes' D	Distant metastases esp. liver	3%

COLORECTAL CANCER IN PRIMARY CARE

General practitioners and other primary care staff are likely to encounter these patients who have CRC or are at increased risk of the disease:

- Patients presenting with **large bowel symptoms**, principally rectal bleeding or altered bowel habit
- Patients with clinical signs or results of investigations suggestive of CRC, principally **iron deficiency anaemia**.
- Asymptomatic patients with a **positive family history of CRC** or endometrial cancer.

SYMPTOMATIC PATIENTS

Patients aged over 45 years presenting with new large bowel symptoms, including altered bowel habit, rectal bleeding, abdominal pain, tenesmus, faecal incontinence or passing mucus per rectum should be regarded as having alarm symptoms, suggestive of cancer, and as being at relatively high risk of CRC. Under these circumstances referral for investigation is mandatory. A careful total colonoscopy or a flexible sigmoidoscopy followed by a high quality double-contrast barium enema (DCBE), are the investigations of choice and should be chosen with regard to local services and expertise. Some GPs may have direct access to colonoscopy according to specified guidelines. In any case it is important to provide gastroenterologists with an accurate clinical history and an appropriate family history in these patients.

Alarm Symptoms	
Change in bowel habit	Faecal incontinence
Rectal bleeding	Tenesmus
Anorexia and weight loss	Passing mucus per rectum

In patients under the age of 45 years the decision to investigate will depend on the clinical symptoms and family history. In patients without severe or persistent symptoms and without a close family history of colorectal or endometrial cancer, bowel disturbances can initially be treated symptomatically, following appropriate physical examination, including a digital rectal examination. When symptoms persist in the face of symptomatic treatment, patients should be considered for investigation or referral to a gastroenterologist.

Factors increasing the time to diagnosis
Assumption that symptoms are due to haemorrhoids or Irritable Bowel Syndrome
Inadequate investigation of iron deficiency anaemia
Inadequate rectal or abdominal examination

If patients under the age of 45 with symptoms also have a positive family history, namely a first degree relative (brother, sister, parent or child) with bowel or endometrial cancer presenting below the age of 55 or more than one affected relative, they are at significantly higher risk of CRC and should be referred for investigation without delay.

Patients with inflammatory bowel disease, (Crohn's disease and ulcerative colitis) are at increased risk of developing cancer. Their risk is proportional to the duration and extent of their inflammatory disease. Patients with these conditions should be referred for colorectal cancer surveillance. Some patients with IBD will have had a previous ileorectal anastomosis, their rectum is still at risk and requires surveillance.

Patients with iron deficiency anaemia over the age of 45 should be fully investigated for colorectal cancer by upper and lower bowel endoscopy, unless a compelling cause for the anaemia has been identified. Men under the age of

45 with iron deficiency anaemia should also be investigated. In women without an obvious alternative cause for blood loss, e.g. menorrhagia, investigation is also required.

The threshold for referral for these investigations should be lowered in patients with positive family histories, as described above. In the face of patients' anxiety or pressures to investigate (and of physician uncertainty) it may be appropriate to refer younger patients for investigation at an earlier stage.

ASYMPTOMATIC PATIENTS

Patients registering in general practice are usually asked to provide details of their previous medical problems and a family history. This should include the presence of illness in siblings, parents and children (first degree relative), and grandparents, aunts and uncles (second-degree relatives).

Patients with a family history of polyposis coli should be referred to a geneticist for DNA testing after the age of 15 and those testing positive should enter a programme of endoscopic surveillance.

Patients in hereditary non-polyposis colon cancer (HNPCC) families (suspect if there is a history of 3 cases of CRC or adenocarcinoma of the uterus) should be referred for clinical screening at age 25; although DNA testing is not practicable in these patients at present, they should also be seen by a geneticist.

In other asymptomatic patients with first degree relatives with a history of CRC, consideration should also be given to referral for investigation. When a patient has one first-degree relative in whom cancer has been diagnosed under the age of 45 or has two first-degree relatives with CRC the lifetime risk of CRC rises to greater than 1:10.¹⁹ These patients should be referred at an age 10 years younger than the youngest affected relative.

These patients should be referred to a local centre with an interest and expertise in CRC screening. Otherwise the local clinical genetics department should be able to provide advice.

POPULATION SCREENING

Two recently-published randomised controlled trials of faecal occult blood (FOB) screening for colorectal cancer, from Nottingham, UK ⁷ ; and Funen, Denmark ⁸ , have indicated that this approach, of screening entire populations (average-risk individuals) in general practice, is capable of reducing the overall mortality of CRC by around 15%.

There is, however, no government funding for this, but it may be that selected practices or Primary Care Groups could begin to consider the resource implications of an approach that may significantly reduce mortality.

A Medical Research Council-funded trial to evaluate once-only flexible sigmoidoscopy in patients aged from 50-60 is underway. The results of this trial will not be available for some years, and in the meantime the best evidence comes from the FOB studies in Denmark and the UK.

IMPLICATIONS FOR PURCHASERS

Arrangements for rapid access to specialists and investigations for patients with suspected CRC are needed. Genetic testing and endoscopic surveillance for CRC represent a long-term investment; there will be no immediate cost savings, but it is likely that, eventually, earlier diagnosis will lead to reduced surgical and medical costs of the care of advanced cancer.

IMPLICATIONS FOR TRAINING

There are wide variations in the expertise available to conduct colonoscopy and DCBE. An adequate level of training (and possibly certification) for colonoscopists is required, and national standards for this are desirable.

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