



Guidelines for the prevention, early detection and management of colorectal cancer:

A guide for general practitioners

This general practitioners' guide summarises the main evidence based recommendations from the NHMRC endorsed *Guidelines for the prevention, early detection and management of colorectal cancer*. The guidelines were produced by the combined efforts of all professional groups managing colorectal cancer in Australia, and recognise the pivotal role of the general practitioner in the management of patients with colorectal cancer.

This guide is intended to help general practitioners lead the patient with colorectal cancer through the complex and evolving forms of investigation and treatment. The guidelines, which can be obtained from the Internet at <http://www.nhmrc.health.gov.au> can also be used as a resource to provide information for commonly asked questions on prevention, screening and family risk.

A booklet for consumers *Guidelines for the prevention, early detection and management of colorectal cancer: A guide for patients, their families and friends* has also been produced to provide the public with the most up to date information on colorectal cancer in Australia, in a form and tone that is easily accessible. The aim of this resource is to have well informed people being involved in their own cancer management program.

Colorectal cancer is the most commonly diagnosed, non-cutaneous cancer in Australia. In 1995 there were 10,615 cases of colorectal cancer and 4,508 deaths. In Australia, the lifetime risk of developing colorectal cancer before the age of 75 years, is approximately one in 18 for men and one in 26 for women.

Colorectal cancer is rare in people under the age of 50 years, with the median age at diagnosis being 70. Risk increases with age and is greater for people with a family history of the disease.

About two per cent of patients with colorectal cancer suffer from genetic syndromes associated with an exceptionally high risk of colorectal cancer and another 15 to 20 per cent have a family history of colorectal cancer without genetic predisposition.

PREVENTION

Diet

People's risk of colorectal cancer can be reduced if they:

- Restrict energy intake (fewer than 2,500 kilocalories per day for men; fewer than 2,000 kilocalories per day for women);
- Reduce dietary fat (less than 25 per cent of total energy as fat);

Eat five or more portions per day of a variety of vegetables and fruit all year round;

- Consume poorly soluble cereal fibres (eg wheat bran), especially if they are at a high risk of colorectal cancer;
- Ensure a dietary calcium intake of 1,000 to 1,200 mg per day.

Healthy lifestyle

The following healthy lifestyle recommendations may be protective against colorectal cancer and should be followed by all people:

- Participate in regular physical activity;
- Restrict alcohol intake;
- Do not smoke.

Chemoprevention

Agents such as selenium supplements, aspirin, non-steroidal anti-inflammatory drugs (NSAIDs), and selective cox-2 inhibitors may be important in the prevention of colorectal cancer but are not recommended until further research is conducted.



NHMRC
National Health and Medical Research Council



EARLY DETECTION

Population screening using faecal occult blood testing (FOBT) reduces mortality from colorectal cancer. However, in Australia, the feasibility of population screening has yet to be determined and studies are in progress.

If you have an enquiry about screening from an asymptomatic patient aged 50 years or over who is concerned about the prevention of, risk associated with, or the presence of colorectal cancer, the following process is recommended:

- Take a thorough family history;
- Perform a physical examination (including abdominal) and a digital rectal examination;
- Explain information regarding risk, diet and healthy lifestyle, and the nature and value of screening;
- Consider psychosocial history.

A management decision can then be made based upon the following information.

Quantifying risk based on family history

This area is dynamic and will be updated according to evidence. Important changes will be brought to your attention from time to time.

Individuals can be placed in one of three categories of relative risk, based on their family history.

Category 1 – those at or slightly above average risk

This covers about 98 per cent of the population. Asymptomatic people fit into this category if there is:

- i. No personal history of colorectal cancer or ulcerative colitis and no confirmed family history of colorectal cancer; or
- ii. One first-degree (parent, sibling, child) or second-degree (aunt, uncle, niece, nephew, grandparent, grandchild) relative with colorectal cancer diagnosed at age 55 or older.

Screening guidelines:

- Faecal occult blood testing (FOBT) at least every two years from the age of 50;
- Consider sigmoidoscopy (preferably flexible) every five years from the age of 50;
- It is important to advise individuals to see their doctor if they develop symptoms of colorectal cancer.

Category 2 – those at moderately increased risk

This covers one to two per cent of the population. Asymptomatic people fit into this category if there is:

- i. One first-degree relative with colorectal cancer diagnosed before the age of 55; or
- ii. Two first or second-degree relatives on the same side of the family with colorectal cancer diagnosed at any age.

Screening guidelines:

- Offer colonoscopy every five years starting at 50, or at an age 10 years younger than the age of colorectal cancer in the family, whichever comes first;
- Sigmoidoscopy plus double-contrast barium enema is an acceptable alternative to colonoscopy if colonoscopy is unavailable;

- Consider FOBT in intervening years. Colonoscopic follow-up (or sigmoidoscopy plus double-contrast barium enema) is necessary for those with a positive FOBT.

Category 3 – those at potentially high risk

This covers less than one per cent of the population. Asymptomatic people fit into this category if there are:

- i. Three or more first or second-degree relatives on the same side of the family diagnosed with colorectal cancer [suspected hereditary non-polyposis colon cancer (HNPCC)]; or
- ii. Two or more first or second-degree relatives on the same side of the family diagnosed with colorectal cancer, including any of the high-risk features:
 - multiple colorectal cancers in one person
 - colorectal cancer before the age of 50 years
 - at least one relative with endometrial or ovarian cancer (suspected HNPCC); or
- iii. At least one first degree or second degree relative with colorectal cancer, with a large number of adenomas throughout the large bowel [suspected familial adenomatous polyposis (FAP)]; or
- iv. Somebody in the family in whom the presence of a high-risk mutation in the adenomatous polyposis coli (APC) or one of the mismatch repair (MMR) genes has been identified.

Screening guidelines:

- These high-risk families should be managed with the support of clinical genetics and cancer genetic services underpinned by family registries;
- Screening of at-risk members of proven HNPCC families should be by annual or two-yearly colonoscopy, commencing around the age of 25 years. Annual screening should be offered to individuals carrying a germline mutation.

Faecal occult blood testing (FOBT)

There is still a considerable amount of research to be done to determine the most appropriate FOBT: immunochemical tests or chemical (guaiac) tests.

Patients may be referred to a pathology group for testing. Alternatively, you may give the test kit to the patient directly, in which case the following advice should be given:

- The manufacturer's instructions on how to use these tests must be followed, including special dietary restrictions for guaiac tests;
- When using a guaiac test, patients should commence this modified diet three days before they take the first faecal sample, and continue through the testing period.

Sampling stools

Participants should be given sample cards and devices to perform the faecal sampling themselves.

Note:

1. Each sample should come from a normally passed motion and not come into any contact with water from the bowl.
2. Three separate stools should be sampled from the surface, or where the blood may be present.
3. A thin smear should be prepared, which will dry quickly on the specimen card.

The FOBT should be performed 72 hours after the faecal samples have been collected and not before.

ALL positive FOBT results (including just one of the three samples) must be investigated by colonoscopy.

Flexible sigmoidoscopy

This test should be carried out by experienced endoscopists either in rooms or in an endoscopy clinic. Patients should be informed that the procedure is quite simple, does not require sedation or an elaborate bowel washout (although an enema is needed).

Symptoms of colorectal cancer

The most common presenting symptoms of colorectal cancer are:

- bleeding from the rectum, mixed with or separate from the faeces;
- a change in bowel habit, especially a recent one;
- symptoms of anaemia;
- abdominal pain, especially if of recent onset;
- weight loss;
- bloating.

These symptoms are not always clear-cut and can have a variety of other causes including more common conditions such as haemorrhoids.

Investigation of symptoms

Investigation must be tailored to the circumstances.

- The recent onset of symptoms in a patient over 40 years of age raises suspicion of colorectal cancer and investigation is important in this situation.
- Persons under 40 years of age should be investigated if there is a positive family history, if there is not an identified cause of symptoms, or if symptoms are persistent.

When a decision is made to investigate, it is appropriate to perform a thorough examination of the anus, rectum and colon by one or all of the following in order to make a definitive diagnosis:

- Digital rectal examination and sigmoidoscopy;
- Colonoscopy; and or
- Air contrast barium enema and sigmoidoscopy.

The accuracy and safety of barium enema and colonoscopy is dependent upon quality issues and only endoscopists who are trained adequately should be used. If colonoscopy is incomplete, then a barium enema is necessary.

Adenomatous polyps

If any polyps are seen at colonoscopy they should be removed.

- For patients with adenomatous polyps:
 - surveillance colonoscopy is warranted within one year if the polypectomy is incomplete. However the colonoscopy should be able to clear the colon.
 - surveillance colonoscopy is warranted within three years for a large adenoma (more than 1 cm), adenomas with high-grade dysplasia or villous change, multiple (more than 2) adenomas, those with a family history or those over the age of 60.
- Surveillance colonoscopy may be delayed to four to six years for single tubular adenomas less than 1 cm in size.

COLORECTAL CANCER MANAGEMENT

Preoperative assessment

Routine preoperative assessment includes a full medical history and physical examination, with particular interest in cardiorespiratory assessment.

Most patients do not require preoperative staging by CT scan or endorectal ultrasound.

- If a stoma is being contemplated, the patient should be seen by an experienced stomal therapist before surgery.

Preparation for surgery

- Most patients having surgical resection of the colon will have a bowel prep, although there is no evidence that this improves infection rates or morbidity following surgery.
- Patients undergoing surgery should receive prophylaxis for thromboembolic disease by the use of one of the forms of heparin. Prophylactic antibiotics are required in colorectal surgery.

Elective surgery for colon cancer

An *en bloc* resection of the primary colonic cancer together with the appropriate lymph nodes is undertaken.

The patient is staged at surgery, eg by detection of liver metastases if present.

Rectal cancer

In general, sphincter saving operations are preferred to abdominoperineal resection. With the use of modern instruments, most rectal tumours can be removed with preservation of the sphincters.

Local excision of small rectal tumours is effective.

Laparoscopic surgery is fashionable but should be performed only under the auspices of a randomised controlled clinical trial.

Palliative laparoscopic surgery is reasonable for those with incurable disease.

Staging systems and prognosis after surgery

Staging of colorectal cancer is complex because of the multiplicity of staging systems. The ACPS (Australian Clinico Pathological Staging System) is recommended as the preferred method of staging and is very helpful in clinical management but pTNM (pathological) staging should also be reported to allow for international comparisons.

Prognosis depends upon the degree to which the cancer has spread and is described in stages.

Stage	Definition	Five year survival figures
A	Localised within the bowel	88%
B	Penetrates the bowel wall	70%
C	Regional nodal involvement	43%
D	Distant metastases	7%

The overall relative five-year survival for colorectal cancer is about 53 per cent. There is an upward trend in these survival figures.

Emergency surgery

A large proportion of patients (up to 20 to 30 per cent) with colorectal cancer will present as an emergency. This may be an obstruction or perforation. Patients should be urgently sent to an appropriate hospital and usually require surgery with resection of the cancer and management of any complications.

Adjuvant therapies

Adjuvant therapies associated with surgery have been shown to improve survival.

Colon cancer

Those with resected node positive colon cancer should be offered adjuvant therapy usually consisting of 5-fluorouracil and low dose leucovorin for six months.

Rectal cancer

Adjuvant therapies should be offered to patients if they have localised rectal cancer that has either penetrated the rectal wall and/or involved lymph nodes by metastatic cancer.

- Post-operative 5-fluorouracil based chemotherapy and radiotherapy is recommended for patients with high-risk rectal cancer because it significantly improves survival and local tumour control.

Advanced disease

Local management

- Surgery, radiation therapy or chemotherapy might be offered to a patient with locally advanced disease.
- Systemic chemotherapy prolongs life when compared to best supporting care in a patient with advanced colorectal cancer.

The management of liver metastases is possible and cures can be obtained by resection of up to four lesions in the liver. Hepatic arterial infusion and a variety of other techniques including cryotherapy and laser therapy have been shown to be effective.

Palliative care

Palliative pain management should be offered to all patients who experience symptoms associated with cancer, whatever their stage of treatment.

This management may involve one or a combination of the following:

- further surgery;
- chemotherapy;
- radiotherapy;
- pain control through oral medication.

**For more information contact
the Cancer Information Service
on 13 11 20**

COMMUNICATION WITH THE PATIENT

Information should be provided to patients in a form and manner that helps patients understand the problem and treatment options available, and which is appropriate to the patient's circumstances, personality, expectations, fears, beliefs, values and cultural background.

Patient information

Where possible, the following information should be provided in collaboration with the GP, surgeon and stomal therapy nurse to a patient with colorectal cancer:

- the causes of colorectal cancer and the extent of the disease;
- proposed approach to investigation and treatment, including information on expected benefits, the process involved, common side effects, whether the intervention is standard or experimental and who will undertake the intervention;
- the likely consequence of choosing a particular treatment, or no treatment;
- the time involved;
- the costs involved;
- the effect of cancer and its therapy on interpersonal and sexual relationships;
- typical emotional reactions;
- appearance after surgery;
- how to obtain special items such as stomal devices if required;
- entitlements to benefits and services, such as subsidies for travel and prostheses;
- access to cancer information services.

Clinical trials

Doctors should encourage patients with colorectal cancer to consider participating in appropriate clinical trials for which they are eligible.

Quality of life

Doctors involved in the management of patients with colorectal cancer should be aware of the potential impact of treatment on quality of life and should include this in decision making.

Patients should be informed of the likely impact of treatment alternatives on their quality of life.

Support

Support needs for patients with colorectal cancer and their families may include:

- counselling, including sexuality and fertility;
- access to a cancer support service and/or an ostomy support group;
- education and assistance with stomal therapy;
- assistance with care of children or other family members;
- assistance with transport;
- dietary advice.