

## SURGERY

### PREOPERATIVE STAGING AND PREVENTATION

- B**
- All patients undergoing elective surgery for colorectal cancer should have preoperative imaging of the liver and chest.
  - In patients requiring emergency surgery intraoperative liver ultrasound or postoperative imaging is acceptable.
- C** Complete colonic examination by colonoscopy, CT pneumocolon or barium enema should be carried out, ideally preoperatively, in patients with colorectal cancer.
- A** Patients undergoing surgery for colorectal cancer should have:
- venous thromboembolism prophylaxis,
  - antibiotic prophylaxis consisting of a single dose of antibiotics providing both aerobic and anaerobic cover given within 30 minutes of induction of anaesthesia.

### SURGICAL TECHNIQUES

- B** Mesorectal excision is recommended for most rectal cancers where the patient is fit for radical surgery. The excision should be total for tumours of the middle and lower thirds of the rectum, preserving the pelvic autonomic nerves wherever possible.
- Where a resectable organ, is involved by the primary tumour careful consideration should be given to removal (partial or total as appropriate) of that organ.
- C** With a low rectal anastomosis:
- consider giving a defunctioning stoma
  - after TME, consider a colopouch.
- C** Further surgery for pedunculated polyp cancers is indicated if:
- there is histological evidence of tumour at, or within 1 mm of, the resection margin;
  - there is lymphovascular invasion;
  - the invasive tumour is poorly differentiated.
- C** Patients with malignant obstruction of the large bowel should be considered for immediate resection.
- A** If immediate reconstruction after resection is feasible, segmental resection is preferred for left-sided lesions.
- D** Where facilities and expertise are available, colonic stenting should be considered.

### SPECIALISATION AND WORK LOAD

- B** Surgery for colorectal cancer should only be carried out by appropriately trained surgeons whose work is audited. Low rectal cancer surgery should only be performed by those trained to carry out TME.

## COLORECTAL CANCER

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### FOLLOW UP OF PATIENTS TREATED FOR COLORECTAL CANCER

- A** Patients who have undergone curative resection for colorectal cancer should undergo formal follow up in order to facilitate the early detection of metastatic disease.

### PALLIATIVE CARE & SYMPTOMS OF ADVANCED DISEASE

- Patients with advanced colorectal cancer whose physical or emotional symptoms are difficult to control should be referred to a specialist in palliative care without delay.
- As anorexia and weight loss are so distressing for the patient and their family, the issue of nutrition must be addressed.
- D** Medical measures such as analgesics, anti emetics and anti-secretory drugs should be used alone or in combination to relieve the symptoms of bowel obstruction.

The Scottish Intercollegiate Guidelines Network (SIGN) supports improvement in the quality of health care for patients in Scotland by developing national clinical guidelines containing recommendations for effective practice based on current evidence.

The recommendations are graded **A B C D** to indicate the strength of the supporting evidence.

Good practice points  are provided where the guideline development group wishes to highlight specific aspects of accepted clinical practice.

Details of the evidence supporting these recommendations and their application in practice can be found in the full guideline, available on the SIGN website: [www.sign.ac.uk](http://www.sign.ac.uk)

This guideline was issued in 2003 and will be reviewed periodically as required to reflect new evidence. All updates to the guideline will be noted on the SIGN website.

For more information about the SIGN programme, contact the SIGN Executive or see the website.

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## Colorectal Cancer



## Quick Reference Guide

### PREVENTION

- Lifestyle factors are associated with reduced risk of colon cancer and the population of Scotland should be encouraged:
- B**
- to take at least 30 minutes of physical activity (such as brisk walking) on most days
- B**
- to maintain a Body Mass Index of 18.5-25 kg/m<sup>2</sup>
- C**
- to eat five or more portions of fruits and vegetables a day
- B**
- not to smoke
- B** The use of hormone replacement therapy specifically to prevent colorectal cancer is not recommended.

### SCREENING

- D**
- Patients with left-sided colitis or pancolitis of 10 years duration should undergo three yearly colonoscopy with mucosal biopsies and biopsy of any suspicious lesions.
  - Patients who have undergone colonoscopic polypectomy for adenomas should be offered follow up colonoscopy.

### IMPACT ON PATIENTS AND THEIR FAMILIES

- D** Information about local support services should be made available to both the patient and their relatives.
- Clear follow up arrangements to see specialists should be made and explained as waiting and uncertainty add to distress.
- B** Clinicians must be aware of the potential for physical, psychological, social and sexual problems after all colorectal cancer surgery, including sphincter-saving operations.
- D** Patients should be given clear information about the potential risks and benefits of treatment, in order that they can make choices.
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- Severe physical symptoms should be addressed before patients are asked to make complex treatment choices.
  - All patients should have access at diagnosis to a clinical nurse specialist for support, advice and information.
- All patients who may require stoma formation (permanent or temporary) should be referred and assessed by a stoma nurse specialist before admission to hospital.

## PRIMARY CARE AND REFERRAL

- C** Patients over the age of 50 years with any of the following symptoms over a period of six weeks should be urgently and appropriately investigated:
- rectal bleeding with a change in bowel habit to looseness or increased frequency
  - rectal bleeding without anal symptoms
  - palpable abdominal or rectal mass
  - intestinal obstruction
- C** All patients with iron-deficiency anaemia (Hb < 11g/dl in men or < 10g/dl in postmenopausal women) without overt cause should be thoroughly investigated for colorectal cancer.
- D**
- Patient groups at risk of colorectal cancer, especially those over 50 years of age, should be informed about significant symptoms and encouraged to seek medical attention early should they develop such symptoms.
  - GPs should perform a thorough abdominal and rectal examination on all patients with symptoms suspicious of colorectal cancer.
  - Patients presenting with suspicious symptoms or signs should be urgently investigated and referred to a surgical unit with a declared interest in colorectal cancer.

## DIAGNOSIS

- D** Colonoscopy is recommended as a very sensitive method of diagnosing colorectal cancer, enabling biopsy and polypectomy.
- B** Double contrast barium enema may be employed as a sensitive, safe alternative to colonoscopy. It should be combined with flexible sigmoidoscopy when the sigmoid colon is not well visualised.
- D** Where the radiological expertise and equipment exist, a CT pneumocolon is recommended as a sensitive test for colorectal cancer.

## GENETICS

- C** A three generation family history should be taken from all individuals with colorectal cancer.
- D** Individuals at moderate risk of developing colorectal cancer on the basis of their family history should be offered a single colonoscopy at 30-35 years and again at 55 years.
- C** Referral of individuals with a high risk of developing colorectal cancer should be made to the local clinical genetic service for consideration of mismatch repair gene mutation analysis.

## CHEMOTHERAPY AND RADIOTHERAPY

- Chemotherapy and radiotherapy should be prescribed, dispensed, administered and supervised in a safe and effective manner in accordance with the Joint Collegiate Council for Oncology guidelines and Scottish Executive advice.
- It is essential that the pros and cons of intervention be discussed carefully with the patient so that each individual can make an informed choice that is consistent with their wishes and personal circumstances.

## ADJUVANT CHEMOTHERAPY

- A** Patients with Dukes' C tumours of the colon or rectum should be considered for adjuvant chemotherapy.
- A** Patients with Dukes' B tumours of the colon or rectum should not routinely be treated with adjuvant chemotherapy.
- A** The recommended adjuvant regimen in patients with Dukes' C tumours is bolus fluorouracil and low-dose folinic acid (FUFA), administered over five days every four weeks. The duration of treatment should be six months.
- A** The addition of levamisole or interferon alfa to FUFA chemotherapy as adjuvant treatment is ineffective in colorectal cancer and should not be considered.

## ADJUVANT RADIOTHERAPY

- A** Preoperative radiotherapy, planned with three or four fields, should be considered in patients with operable rectal cancer.
- Postoperative radiotherapy, should be considered in patients with rectal cancer who did not receive preoperative radiotherapy and who are at high risk of local recurrence.
- C** When postoperative radiotherapy is indicated, a schedule of 45Gy in 25 fractions over five weeks is recommended. Patients should not be treated with parallel opposed fields; a planned technique with three or four fields should be used.

## CHEMOTHERAPY SYNCHRONOUS WITH RADIOTHERAPY (CRT)

- C** Chemotherapy should be given synchronously with the radiotherapy using one of the following three regimens:
- intermittently infused FUFA (Bosset);
  - continuous fluorouracil (Lokich) or
  - bolus FUFA.

## CHEMOTHERAPY FOR METASTATIC DISEASE

- A** All patients with metastatic colorectal cancer should be considered for chemotherapy.

## FIRST LINE CHEMOTHERAPY REGIMEN

- A** Bolus 5-FU regimens are not recommended as routine first line chemotherapy for advanced disease.
- A** Outside a clinical trial, the choice of an appropriate regimen includes continuous infusional fluorouracil (Lokich), FUFA infusion (de Gramont) or capecitabine.
- D** Raltitrexed is not recommended as a first line therapy but may be considered as an alternative in those patients intolerant of 5-FU regimens or in whom 5-FU is contraindicated due to cardiotoxicity.\*

## COMBINATION CHEMOTHERAPY

- Until the balance between benefits and harms can be better defined, there is no justification for the routine use of combination therapy as first-line treatment for all patients with metastatic colorectal cancer. The decision should be made on an individual basis.
- C** Initial combination chemotherapy, including oxaliplatin, should be considered in patients with inoperable hepatic metastases that might become resectable on treatment.

## SECOND LINE CHEMOTHERAPY

- A** Carefully selected patients with good performance status, normal liver function tests and no evidence of gastrointestinal obstruction with metastatic colorectal cancer, who have progressive disease despite treatment with 5FU/FA, should be considered for second line treatment with irinotecan.

## RADIOTHERAPY FOR ADVANCED DISEASE

- C** Radiotherapy to convert inoperable rectal cancer into operable disease should be combined with chemotherapy. Suitable regimens include intermittent infusional 5FU/FA (Bosset), continuously infused 5FU (Lokich) or bolus 5FU/FA.
- D** Palliative radiotherapy should be considered for patients who have distressing pelvic symptoms from rectal cancer.

\* Although as efficacious as alternative regimens, raltitrexed is associated with significantly greater toxicity and its benefit to patients who are intolerant to 5FU or with coronary heart disease should be carefully weighted against the potential harms. This recommendation differs from the HTBS comment on the NICE appraisal (March 2002) which recommends that the use of raltitrexed is restricted to clinical studies.