Northern England Strategic Clinical Networks

Colorectal Cancer Clinical Guidelines

Colorectal NSSG on behalf of NECN

Document Information

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INTRODUCTION

1. Terms of Reference

The document provides a summary of the key recommendations for the management of colorectal cancer which have been made in recent national publications.

This document is intended to provide guidance for all those who are involved in the management of colorectal cancer. The evidence which has been used to justify these recommendations is presented in the two national publications which both contain appropriate references. The evidence is not discussed in this document.

2. The National Guidelines

- Guidelines for the Management of Colorectal Cancer
- The Association of Coloproctology of Great Britain and Ireland, 2007
- Guidance on Commissioning Cancer Services – Improving Outcomes in Colorectal Cancer: The Manual Update 2004

- National Institute of Clinical Excellence:-
  - Technology Appraisal 61
  - Technology Appraisal 93
  - Technology Appraisal 105
  - Colorectal Cancer (CG 131) Guidelines

- These guidelines will be reviewed regularly and will be revised to keep pace with developments in the management of colorectal cancer.
1. BACKGROUND

Colorectal cancer is the third commonest malignancy in the UK. Over 30,000 new cases of bowel cancer are diagnosed each year in the UK\(^1\).

The incidence of colorectal cancer is gradually increasing. The probability of developing colorectal cancer rises sharply with age. Bowel cancer is most common in older people and is rare under the age of 50. Annual registration rate for bowel cancer \textit{Age <50 is 2 per 100 000}, and when \textit{Age >50 is 300 per 100 000} population. 85% are aged >60 years\(^2,3,4\). The median age of patients at diagnosis is over 70 years\(^5\).

Family history is thought to have an influence in approximately 20\% of cases\(^2,3,4\). However only small percentage of patients affected (5\%) have a specific inherited gene defect (HNPCC, FAP). These patients present at younger age\(^4\). However, around 75\% of patients have neither a clear family history nor any condition known to predispose them to developing colorectal cancer.

Early diagnosis and treatment carries a definitive survival advantage. The 5 year survival of Dukes A is 83\% compared to that of 38\% with Dukes C\(^2,3,4\). Approximately, 55\% of patients present with advanced disease (Dukes’ stage C or D) - that is, cancer which has spread to the lymph nodes, metastasised to other organs, or is so locally invasive that surgery to remove the primary tumour alone is unlikely to be sufficient for cure.

5 years survival rate have been rising steadily in the UK and is now around 45\%. It appears that survival rates were poorer than the rest of Western Europe\(^6,7\). European evidence supports the view that the problem in the UK has mainly been the late diagnosis of colon cancer, leading to high emergency rate and late stage presentation\(^8\).

Within England, colorectal cancer survival rate vary significantly between health authorities\(^9\). Outcomes were worst in North East England (Tyneside, Northumberland and Tees) with 5-year survival 30\% or lower. By contrast Surrey and Hampshire achieved 51\% survival\(^9\). Five-year survival data from the Northern and Yorkshire Cancer Registry for cases diagnosed between 1990 and 1999 showed an overall relative survival of 52.8\% (CI: 48.2 to 57.2). The male rate was 44.5\% (CI: 37.7 to 51.2), significantly lower than the female rate of 58.8\% (CI: 52.6 to 64.5).

The large intestine, or bowel, has two main sections, the colon and the rectum. About two thirds of tumours develop in the colon and the remainder in the rectum. Colon cancer is equally common in men and women, but rectal cancer is more common in men.

Most tumours are adenocarcinomas which evolve from polyps and may be present for 10 years before malignancy develops. Nevertheless, a substantial proportion of patients, up to third, are admitted as emergencies. Most of these patients have had symptoms for weeks or months before admission.

Although many patients with symptoms for bowel cancer have non-malignant condition, this can only be clarified after appropriate investigation. Deficiencies in appropriate referral process and access to diagnostic facilities in NHS hospitals are reflected in delays in
diagnosis. In 1999/2000 over one third of patients with colorectal cancer waited more than 3 months after consulting their GPs with symptoms before getting their first hospital appointment\textsuperscript{10}.

The NHS executive has set a target that all patients with suspected colorectal cancer will be able to see a specialist within two weeks of their GP deciding they need to be seen urgently and requesting an appointment. Monitoring of trusts compliance with the 2-week target started in July 2000\textsuperscript{11,12}. 100% compliance with this target is expected to be achieved by trusts. The Acute Trusts, PCTs and SHA are monitored in term of full compliance with this target. Persistent breach in the 2-week target will invoke a visit by an intervention team.

**THE 2 WEEK RULE APPLIES ONLY FOR GP SUSPECTED CANCER AND DOES NOT APPLY TO OTHER TYPES OF URGENT REFERRAL.**

The 31 and 62-day targets became policy in December 2005. Stringent weekly and monthly monitoring of these targets is now in place. The 62-day target only applies to referrals that come through the 2 week rule whereas the 31-day target applies to all colorectal cancers irrespective of referral route.

NICE guidance produced in 2004 stated:

A referral proforma for suspected colorectal cancer should be developed by the Network and distributed to GPs and Trusts throughout the network. Each Trust should have a central system specifically for rapid and efficient referral of patients with suspected colorectal cancer to a designated diagnostic service managed by the colorectal cancer MDT. Such patients should not be referred initially either to individual clinicians or to radiology services for barium enema\textsuperscript{4}.

These patients should not be referred to a clinician who is not a core member of the colorectal cancer MDT\textsuperscript{4}.
1.1 Prevention, surveillance and screening

Colon and rectum
There are reasons to believe that many deaths from colorectal cancer could be prevented.

- Lifestyle and socio-economic circumstances have a major effect on risk. Although the effectiveness of lifestyle interventions for the reduction of colorectal cancer has not yet been demonstrated in randomised trials, the type of lifestyle that is associated with relatively low rates of colorectal cancer (see below) is known to be generally beneficial for health.

- Polyps can be seen and removed by endoscopy before they become malignant. This means that screening really can prevent this form of cancer.

- Some polyps and early tumours bleed, so their presence can be detected by alert patients, by testing the faeces for blood, or by adequate investigation of iron-deficiency anaemia.

- The disease tends to develop slowly. Resection of early disease usually eliminates it completely, so appropriate action in response to early symptoms can prevent further spread.

- Lower risk has been convincingly linked with the following aspects of lifestyle:
  - Infrequent consumption of meat.
  - Matching calorie consumption to need. Leaner people are less likely to develop colorectal cancer.
  - An active lifestyle.
  - Not smoking.
  - Frequent consumption of vegetables and possibly fruit.

Anal cancer
Anal cancer is a relatively rare disease. The most common form of anal cancer, squamous cell carcinoma, is fundamentally different from other cancers of the colon or rectum. It can usually be successfully treated with concurrent radiotherapy and chemotherapy. Surgery may be used if medical treatment fails.

The most common cause of anal cancer appears to be sexually transmitted infection with the human papillovirus (HPV) – the virus that is also thought to be responsible for cervical cancer. Known risk factors include immunosuppression, usually due to HIV infection or immunosuppressive drugs; taking the receptive role in unprotected anal intercourse; and longstanding problems in the anal area, such as fistulas (abnormal openings). Smoking also increases risk, with a particularly strong relationship between the number of cigarettes smoked and the risk of anal cancer among pre-menopausal women.
1.2 Screening

GENERAL SCREENING POPULATION

The National Bowel Screening Programme uses FOB testing for the 60-74 age group. The regional screening hub is at Gateshead and the regional screening centres are Tees (based at the University Hospital of North Tees), South of Tyne (Sunderland, South Tyneside & Gateshead), Durham and Darlington (based at Bishop Auckland) and North of Tyne (Newcastle and Northumbria). North Cumbria are part of the Cumberland and Westmoreland Screening Centre.

RISK DIRECTED SCREENING

The following conditions are associated with an increased risk of colorectal cancer and may be an indication for screening:

i. A Positive Family History

A careful family history should be taken from all patients with colorectal cancer.

It is recommended that the first degree relatives of patients who develop colorectal cancer before the age of 45 years and members of families in which multiple cancers have occurred should be seen by a specialist who can evaluate their risk of developing the disease and advise on appropriate investigations and surveillance.

ii. The Genetic Syndromes

These two syndromes account for less than 5% of all colorectal cancer.

- Familial Adenomatous Polyposis (FAP)
- Hereditary Non-polyposis Colorectal Cancer (HNPCC)

In the dominantly inherited condition of FAP the phenotype is characterised by the appearance of numerous colonic adenomatous polyps and affected individuals will inevitably develop colorectal cancer. Any suspected new case should be reported to the Northern Polyposis Registry of the Regional Genetics Service for assessment and advice regarding screening and treatment.

HNPCC should be suspected whenever there is a history of multiple family members having cancer either of the colon alone or at other sites and particularly if cancer has been diagnosed at an unusually young age. HNPCC kindreds are usually defined as those in which at least three relatives (one of whom is a first degree relative of the other two) in two generations are affected, with at least one diagnosed at less than 50 years of age. Such families should be referred to the Regional Genetics Service for assessment.

iii. Chronic Inflammatory Bowel Disease
Many patients with chronic IBD involving the colon should be on colonoscopic surveillance.

iv. Pre-existing Colorectal Adenoma or Carcinoma

Patients with a previous history of colonic adenoma or carcinoma will usually already be known to an appropriate specialist. If this is not the case then advice should be sought as certain cohorts should be placed on colonoscopic surveillance.

*For more detail please refer to ‘Guidelines for colorectal cancer screening and surveillance in moderate and high risk groups (update from 2002)’ which is inserted below:*
2. THE PROCESS OF REFERRAL AND INITIAL INVESTIGATIONS

2.1 Introduction

When a person is concerned about possible colorectal cancer and the GP feels investigation is appropriate, it is important that this is done promptly.

- A patient who presents with symptoms suggestive of colorectal or anal cancer should be referred to a team specialising in the management of lower gastrointestinal cancer, depending on local arrangements.
- In patients with equivocal symptoms who are not unduly anxious, it is reasonable to use a period of ‘treat, watch and wait’ as a method of management.
- In patients with unexplained symptoms related to the lower gastrointestinal tract, a digital rectal examination should always be carried out, provided this is acceptable to the patient.
- Only patients with new and persistent symptoms listed below should be referred to the fast-track system.

These criteria should include over 80% of all colorectal cancers presenting to Outpatients.

2.2 Clinical history

Most patients with rectal and sigmoid cancers present with a combination of rectal bleeding and change in bowel habit, usually to increased frequency of defaecation and/or looser stools. Smaller numbers present with only one of these symptoms (Shallow et al, 1995; Flashman K 2004 IIb). Rectal bleeding occurs without anal symptoms in over 60% of patients with cancer (Thompson et al 2007 IIb).

In contrast, patients with cancers proximal to the sigmoid colon are more likely to present as emergencies with intestinal obstruction, or with iron deficiency anaemia, with or without symptoms. Only a small number of patients with cancers proximal to the sigmoid present to Outpatient Departments without iron deficiency anaemia and/or an abdominal mass (Shallow et al 1995 IIb; Flashman K 2004 IIb). These patients are difficult to identify among the large numbers of patients with benign conditions.

The Department of Health Referral Guidelines for GPs aims to improve the selection process in primary care so that the majority of patients with higher risk symptoms are seen within two weeks (NICE Guidelines 2005 IV).

2.3 Clinical examination

There is a palpable rectal mass in 40-80% of patients with rectal cancer (McSherry et al 1969 III, Shallow et al 1955 III), and 82% of palpable rectal cancers may be detected by GPs (Dixon et al 1991 III). These patients can be identified by GPs for fast-track referral.

A digital rectal examination should therefore be an essential part of the examination of any patient presenting with lower GI symptoms above the age of 40 years, and of anybody below this age with persistent symptoms.
A small cancer at the anorectal junction which may be missed by endoscopy can often be detected by rectal examination. Vaginal examination should be part of the assessment of suspected rectal cancer in women.

It is likely that a right-sided abdominal mass will be of greater diagnostic value than left-sided, in view of a higher prevalence of a palpable sigmoid colon. When there is uncertainty about the cause of an abdominal mass, the patient should be treated with laxatives and re-examined to establish whether the mass is persistent before referral.

2.4 High risk criteria – NECN Guidelines
(NICE Guidelines, 2005)

- In patients aged 60 years and older, reporting rectal bleeding with a change in bowel habit towards looser stools and/or increased stool frequency persisting for 6 weeks or more, an urgent referral should be made.
- In patients aged 60 years and older, with rectal bleeding persisting for 6 weeks or more without a change in bowel habit and without anal symptoms, an urgent referral should be made.
- In patients aged 40 years and older, with a change in bowel habit to looser stools and/or more frequent stools persistent for 6 weeks or more without rectal bleeding, an urgent referral should be made.
- In patients presenting with a right lower abdominal mass consistent with involvement of the large bowel, an urgent referral should be made, irrespective of age.
- In patients presenting with a palpable rectal mass (intraluminal and not pelvic), an urgent referral should be made, irrespective of age. (A pelvic mass outside the bowel would warrant an urgent referral to a urologist or gynaecologist.)
- In men of any age with unexplained * iron deficiency anaemia and a haemoglobin of 11 g/100 ml or below, an urgent referral should be made.
- In non-menstruating women with unexplained * iron deficiency anaemia and a haemoglobin of 10 g/100 ml or below, an urgent referral should be made.

* ‘Unexplained’ in this context means a patient whose anaemia is considered on the basis of a history and examination in primary care not to be related to other sources of blood loss (for example, non-steroidal anti-inflammatory drug treatment or blood dyscrasia).
2.5 NECN SUMMARY GUIDELINES FOR URGENT 2WEEK RULE REFERRALS

THE 2 WEEK RULE APPLIES ONLY FOR GP SUSPECTED COLORECTAL CANCER AND DOES NOT APPLY TO OTHER TYPES OF URGENT REFERRAL.

It is recommended that these symptom and sign combinations WHEN OCCURRING FOR THE FIRST TIME should be used to identify patients for urgent referral under the two-week standard if BOWEL cancer is suspected.

### Symptoms & Sign Combinations

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<th>Age Threshold</th>
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<tr>
<td>Rectal bleeding WITHOUT *anal symptoms</td>
<td>Over 60</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation persistent for 6 weeks with rectal bleeding</td>
<td>Over 40</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation persistent for 6 weeks without rectal bleeding</td>
<td>Over 60</td>
</tr>
<tr>
<td>Iron deficiency anaemia without an obvious cause (Hb&lt;110g/l in men or Hb&lt;100g/l in postmenopausal women)</td>
<td>All ages</td>
</tr>
<tr>
<td>A definite palpable right-sided abdominal mass</td>
<td>All ages</td>
</tr>
<tr>
<td>A definite palpable rectal (Intra-luminal, not pelvic) tumour</td>
<td>All ages</td>
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* Anal symptoms include soreness, discomfort, itching, lumps and prolapse as well as pain.

**NB:** Patients with the following symptoms and no abdominal or rectal mass are at very low risk of cancer:
- Rectal bleeding with anal symptoms*
- Change in bowel habit to decreased frequency of defaecation and harder stools.
- Abdominal pain without a clear evidence of intestinal obstruction.

### 2.6 Low risk criteria

- Screening studies show that the risk of having bowel cancer is never zero, even in patients without symptoms.
- Some cancers will be found incidentally in patients presenting with symptoms from benign disease, and symptomatic cancers can develop in patients who already have symptoms from functional bowel disease or piles. This means that patients with persistent low-risk symptoms which do not respond to treatment, or which recur after stopping treatment, should be referred to routine clinics. (Thompson et al 2003 III).
- Criteria indicating that patients are at low risk of colorectal cancer are:
  - Rectal bleeding with anal symptoms or with an obvious external visible cause such as prolapsed piles, rectal prolapse and anal fissures.
  - Transient change in bowel habit for less than 6 weeks, particularly if to decreased frequency of
  - defaecation and harder stools
- Abdominal pain without iron deficiency anaemia or an easily palpable abdominal mass, and not associated with loss of appetite causing weight loss or other higher risk symptoms.
- Abdominal pain without clear evidence of intestinal obstruction.

- When patients have persistent symptoms which would normally fit low-risk criteria, but there are other worrying factors such as a positive family history or a positive FOB, they should be seen on an urgent basis in a normal clinic.

2.7 Initial Bowel Investigations

It is recommended that patients with higher-risk symptoms should be fast-tracked either in dedicated 2-week clinics, straight to test pathway or with urgent appointments in routine clinics. Patients so referred should be investigated with sigmoidoscopy (flexible or rigid), and when appropriate by high quality double contrast barium enema, or colonoscopy or CT colonography. A barium enema should always be complemented by sigmoidoscopy.

2.8 Referral Process

A referral proforma for suspected colorectal cancer should be developed by the Network and distributed to GPs and Trusts throughout the Network. Each Trust should have a central system (either a computer link or a fax/telephone number) specifically for rapid and efficient referral of patients with possible or suspected colorectal cancer to a designated diagnostic service managed by the colorectal cancer multi-disciplinary team (MDT). Such patients should not be referred initially either to individual clinicians or to radiology services for barium enema.

The diagnostic service will initiate the initial investigations such as endoscopies, blood tests, and routine CT and MRI scans. The MDT will verify the necessary investigations have been organised and will arrange subsequent investigations, i.e. PET-CT scans or liver MRI scans if required.

2.9 Onward Referral

Malignant or non malignant disease
The diagnosing clinician is responsible for the patient while staging is being carried out but the referring clinician from the MDT retains clinical responsibility for that patient, whether the diagnosis is malignant or non malignant disease. See table below for the agreed contact referral routes for patients with liver metastases.
## MDT Contact Details

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<th>Diagnostics</th>
<th>MDT</th>
<th>MDT Lead Clinician</th>
<th>MDT Contact Point</th>
<th>MDT for Resection of Liver Metastases</th>
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<td>University Hospital North Durham Shotley Bridge Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Miss S E Green</td>
<td>Fax: 01207 594406</td>
<td></td>
</tr>
<tr>
<td>Sunderland Royal Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr J Corson</td>
<td>Fax: 0191 5410515</td>
<td></td>
</tr>
<tr>
<td>Wansbeck General Hospital</td>
<td>√</td>
<td>Colorectal MDT (joint with Hexham and NTGH)</td>
<td>Ms S Mills</td>
<td>Fax: 0191 2934107</td>
<td></td>
</tr>
<tr>
<td>North Tyneside General Hospital</td>
<td>√</td>
<td>Colorectal MDT (joint with Wansbeck and Hexham)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexham General Hospital</td>
<td>√</td>
<td>Joint colorectal MDT with NTGH and Wansbeck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Cumberland Hospital, Whitehaven</td>
<td>√</td>
<td>WCH V/C link with CIC into MDT meeting (1 MDT across 2 sites)</td>
<td>Dr J Nicoll</td>
<td>Fax: 01946 523489</td>
<td></td>
</tr>
<tr>
<td>Cumberland Infirmary Carlisle</td>
<td>√</td>
<td>Colorectal MDT</td>
<td></td>
<td>Fax: 01228 634001</td>
<td></td>
</tr>
<tr>
<td>Queen Elizabeth Hospital, Gateshead</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr M Katory</td>
<td>Fax: 0191 4820360</td>
<td></td>
</tr>
<tr>
<td>Royal Victoria Infirmary, Newcastle</td>
<td>√</td>
<td>Joint Colorectal MDT (with FRH and NGH and holding alternate meetings at the FRH site) including local resection of early rectal cancer and Anal MDT</td>
<td>Mr J Hansen</td>
<td>Fax: 0191 2231155</td>
<td></td>
</tr>
<tr>
<td>Freeman Hospital, Newcastle</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Tyneside District Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr A Krishna</td>
<td>Fax: 0191 2022191</td>
<td></td>
</tr>
<tr>
<td>Hospital Trust</td>
<td>Diagnostics</td>
<td>MDT</td>
<td>MDT Lead Clinician</td>
<td>MDT Contact Point</td>
<td>MDT for Resection of Liver Metastases</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Bishop Auckland Hospital</td>
<td>√</td>
<td>Joint Colorectal MDT with UGI using videoconferencing facilities cross sites</td>
<td>Mr K Gunning</td>
<td>Fax: 01207 594406</td>
<td>St James’, Leeds</td>
</tr>
<tr>
<td>Darlington Memorial Hospital</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Hospital of North Tees</td>
<td>√</td>
<td>Joint Colorectal MDT including local resection of early rectal cancer</td>
<td>Mr T Gill</td>
<td>Fax: 01642 624957</td>
<td>Freeman Hospital, Newcastle and occasionally St James’, Leeds</td>
</tr>
<tr>
<td>University Hospital of Hartlepool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>James Cook University Hospital</td>
<td>√</td>
<td>Joint Colorectal MDT at The James Cook University Hospital including Anal cancer MDT</td>
<td>Dr N Wadd</td>
<td>Fax: 01642 282826</td>
<td>St James’, Leeds or occasionally Freeman Hospital, Newcastle</td>
</tr>
<tr>
<td>Friarage Hospital</td>
<td>√</td>
<td></td>
<td></td>
<td>Fax: 01609 762149</td>
<td></td>
</tr>
</tbody>
</table>

The imaging group will inform the MDT and clinician of imaging results and the MDT/clinician will inform the patient and GP. The CNS will inform the GP of malignant disease by the following working day after the patient has been informed. See MDT/CNS contact details below:
### CNS Contact Details

<table>
<thead>
<tr>
<th>Trust</th>
<th>CNS</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Maralyn Boyd, Susan Rodda Rosemary Jobling</td>
<td>0191 2525252</td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Claire Egglestone</td>
<td>0191 4820000</td>
</tr>
<tr>
<td>Newcastle upon Tyne Hospitals Foundation Trust</td>
<td>Ruth Christer, Debora Hall Liz Robinson, Alison Sharpe</td>
<td>0191 2336161</td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust (Wansbeck)</td>
<td>Barbara Stephenson Debbie Sharples</td>
<td>01670 529239</td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust (North Tyneside &amp; Hexham)</td>
<td>Anne Smith, Helen Watson, Elizabeth Robinson, Pamela Robson</td>
<td>0191 2934006</td>
</tr>
<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td>Angela Wright Pat Kirkbride</td>
<td>01228 814865 01946 693181 Ext 4056</td>
</tr>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>Jane Barnes Teresa Liddle</td>
<td>0191 4041000</td>
</tr>
<tr>
<td>County Durham and Darlington NHS Foundation Trust</td>
<td>Denise Carter, Alison Mills, Karen Dixon, Clare Westwood, Tracy Wood</td>
<td>0191 3332333 01325 743028</td>
</tr>
<tr>
<td>North Tees &amp; Hartlepool NHS Trust</td>
<td>Norma Robinson Gill Trainer</td>
<td>01642 624399 01429 522335</td>
</tr>
<tr>
<td>South Tees Hospitals NHS Trust</td>
<td>Sara Carroll, Tracey Pugh, Angela Stanley, Joan Tickle Judith Smith</td>
<td>01642 854847 01609 764702</td>
</tr>
</tbody>
</table>
2.10 Pathway for patients with suspected colorectal cancer

Max Time in days

Provide information and psychological support

Holistic assessment and rehabilitation consideration

Allocate Colorectal CNS

See TYA Pathway

Inform patient’s GP of Serious Diagnosis

Involvement of AHP’s

See Colorectal Care Pathway

Decision to treat date

First Treatment

Earliest Clinically Appropriate Date (ECAD) for commencement of subsequent treatment

Colorectal cancer clinically or histologically probable?

Yes

Alert Teenage and Young Adult (TYA) MDT if patient 16 to 24 years

Staging Investigations

MDT review of results, plan treatment and consider suitability for clinical trials

Outpatient Appointment to discuss results and agree treatment options

Chemotherapy

Radiotherapy

Surgical Resection

Supportive Palliative Care

MDT review of treatment plan & consideration for clinical trials

Appropriate after care

Colorectal Diagnostic Service

Colonoscopy +/- biopsy

Flexible sigmoidoscopy

Flexible sigmoidoscopy

CT Chest Abdomen/pelvis

MRI Pelvis

EUA

USS

Endo Anal U/S

Colorectal cancer clinically or histologically probable?

No

Provide patient with information and remove from Cancer Pathway

Colorectal Diagnostic Service

Provide information and psychological support

Holistic assessment and rehabilitation consideration

Allocate Colorectal CNS

See TYA Pathway

Inform patient’s GP of Serious Diagnosis

Involvement of AHP’s

See Colorectal Care Pathway

Decision to treat date

First Treatment

Earliest Clinically Appropriate Date (ECAD) for commencement of subsequent treatment

Colorectal Cancer Ideal Map - Version 1.0 June 2010
### Pathway for Patient Referred with Suspected Bowel Cancer

**(STRAIGHT TO TEST)**

<table>
<thead>
<tr>
<th>Referral Criteria / Symptoms</th>
<th>Age</th>
<th>Test / Outcome</th>
<th>Protocol Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Rectal Bleeding alone</td>
<td>=,&gt;60</td>
<td>Endoscopic examination to splenic flexure</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Rectal bleeding WITH a change in bowel habit to looser stools and/or increased frequency of defaecation persistent for 6 weeks.</td>
<td>Over 40</td>
<td>Colonoscopy (with random biopsies if normal)</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation, WITHOUT rectal bleeding and persistent for 6 weeks.</td>
<td>=,&gt;60</td>
<td>Colonoscopy (with random biopsies if normal)</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Iron deficiency anaemia WITHOUT an obvious cause (Hb &lt;110 g/l in men or &lt;100 g/d in postmenopausal women).</td>
<td></td>
<td>OGD &amp; D2 biopsy Colonoscopy</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>A DEFINITE palpable right-sided abdominal mass</td>
<td></td>
<td>Surgical outpatient then colonoscopy if appropriate</td>
<td>MDT</td>
</tr>
<tr>
<td>A DEFINITE palpable rectal (not pelvic) Tumour.</td>
<td></td>
<td>Surgical outpatient then colonoscopy if appropriate</td>
<td>MDT</td>
</tr>
</tbody>
</table>
2.12 Bowel preparation

- Fit patients for outpatient bowel preparation: Full bowel preparation at home
- Unfit patients for outpatient bowel preparation: full prep. As inpatient
- IDDM patients will be given bowel prep as in-patient or outpatient in accordance with local protocol/patient fitness

Exclusion criteria outpatient colonoscopy (see below)

- Unfit for colonoscopy or full bowel preparation at home.
- Unfit for sedation.
- Patient with haematological defects.
- Patients who refuse the investigation or bowel preparation

Two-Week Rule Referral Process

- The patient should be informed by their GP that they are referred to hospital with suspected bowel cancer under the 2-week rule. They should be informed that the majority are referred directly to lower GI Endoscopy which requires full bowel preparation or to an outpatient clinic as indicated above.

- The patient will be given a ‘booking leaflet’ by the GP upon the decision to refer, the leaflet gives the patient information about why they have been referred urgently and what the process is to obtain an appointment date within 2 week of referral. The patient booking leaflet asks the patient to telephone the central appointments office “local acute trust 2 week referral office” the next working day to agree a suitable appointment date (to ensure that the booking rule is observed). A section of the booking leaflet will have been completed by the GP giving information such as name of GP, patient NHS number, hospital referred to, speciality referred to, name of consultant referred to and date seen in GP surgery. The patient may be asked to quote some or all of this information when contacting the central booking office.

- If the patient does not contact the central booking office then the central booking clerk will contact the patient to offer an appointment date, using patient contact details quoted on the fax referral form, if no contact can be made then the central booking clerk will contact the GP.

- The GP will then complete the corresponding speciality fax referral pro-forma and fax to the dedicated number immediately. The GPs have a referral pack which contains two-week rule referral guidelines and copies of the fax pro-forma and booking leaflet. Additional letter or information is welcomed as long as the form is filled. It is essential to enclose a list of current medication and medical history.

- An appointment clerk will make the booking within 2 weeks for lower GI Endoscopy or clinic as above after agreeing the date with the patient.

- Incomplete referral forms or referral with no form, the GP practice will be contacted and asked to supply the relevant information. A copy of the guidelines will be send to the practice.

Follow Up

- Patients will be followed up according to diagnosis.
- Patients with negative colonoscopy will be discharged back to GP, seen in clinic, at discretion of endoscopist (further investigation) as indicated on the referral form.
2.13 Urgent referrals for suspected cancer – 2-week rule fax numbers

Patient with suspected cancer must be seen by a specialist within 2 weeks. If cancer is suspected to ensure it is dealt with urgently please mark your fax:

_Urgent referral: Suspected Cancer (2-week rule applies)_

This rule applies to suspected cancer it does not apply to other types of urgent referral.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Consultant</th>
<th>Urgent Referral Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Tees &amp; Hartlepool NHS Foundation Trust</td>
<td><strong>Surgeons:</strong></td>
<td></td>
</tr>
<tr>
<td>University Hospital of North Tees / University</td>
<td>Mr T Gill</td>
<td>01642 624957</td>
</tr>
<tr>
<td>Hospital of Hartlepool</td>
<td>Mr M Tabaqchali</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr A Agarwal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr D Garg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr D Borowski</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Gastroenterologists:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr D Dwarakanath</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr J Metcalfe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr D Ashley</td>
<td></td>
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<tr>
<td></td>
<td>Dr M Rutter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr B Chaudhury</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr J Vasani</td>
<td></td>
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<td></td>
<td>Dr R Thomas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr J Hancock</td>
<td></td>
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<tr>
<td></td>
<td>Dr C Wells</td>
<td></td>
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<tr>
<td>South Tees Hospitals NHS Foundation Trust</td>
<td><strong>Surgeons:</strong></td>
<td></td>
</tr>
<tr>
<td>James Cook University Hospital</td>
<td>Mr S Wakefield</td>
<td>01642 282826</td>
</tr>
<tr>
<td></td>
<td>Mr M Jha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr D Aitken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr A Reddy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr Macafee</td>
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</tr>
<tr>
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<td><strong>Gastroenterologists:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr J Greenaway</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr Z Suvakovic</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Associate Specialist)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr A Douglass</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr H Dallal</td>
<td></td>
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<tr>
<td></td>
<td>Dr D Joy</td>
<td></td>
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<tr>
<td></td>
<td>Dr A Ramadas</td>
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</tr>
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<td></td>
<td>Dr D Craig</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr H Taha</td>
<td></td>
</tr>
<tr>
<td>Friarage Hospital, Northallerton</td>
<td><strong>Surgeons:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr M Clarke</td>
<td>01609 762149</td>
</tr>
<tr>
<td></td>
<td>Mr V Garud</td>
<td></td>
</tr>
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<td><strong>Gastroenterologists:</strong></td>
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<tr>
<td></td>
<td>Dr Arfin</td>
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<tr>
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</tbody>
</table>
| County Durham & Darlington NHS Foundation Trust  
Bishop Auckland Hospital | **Gastroenterologists:**  
Dr A Dhar  
Dr Jordan |  |
| Darlington Memorial Hospital | **Surgeons:**  
Mr K Gunning  
Mr T Ramalingham  
Mr V Shanmugham  
**Gastroenterologists:**  
Dr Mitchell  
*Plus Locum* | 01207 594406 |
| University Hospital of North Durham | **Surgeons:**  
Mr I Bain  
Mr J Cundall  
Miss K Grant  
Miss S Green  
Miss Noblett  
**Gastroenterologists:**  
Dr D Kejariwal  
Dr S Saksena  
Dr P Matthews |  |
| City Hospitals Sunderland NHS Foundation Trust  
Sunderland Royal Hospital | **Surgeons:**  
Mr J Corson  
Mr G Farook  
Mr G O’Dair  
Mr P Surtees  
S Haltham  
**Gastroenterologists:**  
Dr J Painter  
Dr D Hobday  
Dr Mitchison  
Dr D Nylander | 0191 5410515 |
| Gateshead Health NHS Foundation Trust  
Queen Elizabeth Hospital, Gateshead | **Surgeons:**  
Mr M Eltringham  
Mr DA Browell  
Mr M Mercer-Jones  
Mr M Katory  
**Gastroenterologists:**  
Dr K Saeed  
Dr J Singh | 0191 4820360 |
<table>
<thead>
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<th>Hospital</th>
<th>Consultant</th>
<th>Urgent Referral Fax Number</th>
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</thead>
</table>
| **Northumbria Healthcare NHS Foundation Trust**  
Wansbeck General Hospital | **Surgeons:**  
Miss S Mills  
Mr M Bradburn  
R Kalbassi  
**Gastroenterologists:**  
Dr W Gregory  
Dr R Thomson  
Dr C Haigh  
Dr A Bhagwat  
Dr A Jayaprakash | 0191 293 4107 |
| **North Tyneside General Hospital and Hexham General Hospital** | **Surgeons:**  
Mr B Slater  
Mr S Kelly  
Mr K Seehra  
Mr B Box  
**Gastroenterologists:**  
Dr M Hayat  
Professor R Barton  
Dr M Welfare  
D M Warren  
Dr J Parr  
Dr T Lee | |
| **Hexham General Hospital** | **Surgeons:**  
Mr B Slater  
Mr B Box  
**Gastroenterologists:**  
Dr Abbas  
Dr T Lee | |
| **Newcastle Hospitals NHS Foundation Trust**  
Royal Victoria Infirmary | **Surgeons:**  
Mr Hugh Gallagher  
Mr Stefan Plusa  
Mr Ben Griffiths  
Mr Jon Hanson  
Mr Fintan Bergin  
**Gastroenterologists:**  
Dr Sarah Hearnshaw  
Dr Chris Dipper  
Dr Mel Gunn  
Dr John Mansfield | 0191 2231155 |
| **Freeman Road Hospital** | **Surgeons:**  
Mr Paul Hainsworth  
Mr Alan Horgan  
**Gastroenterologists:**  
Dr Nick Thompson | |
<table>
<thead>
<tr>
<th>Hospital</th>
<th>Consultant</th>
<th>Urgent Referral Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>Surgeons: Mr V Joypaul - rectal</td>
<td>0191 2022191</td>
</tr>
<tr>
<td>South Tyneside General Hospital</td>
<td>Mr R Fenchel - rectal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ms B Weber</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gastroenterologists: Dr C Rees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr S Panter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr Topping</td>
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<td>Dr Butt</td>
<td></td>
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<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td>Surgeons: Mr Frank Hinson</td>
<td>01228 634001</td>
</tr>
<tr>
<td>Cumberland Infirmary, Carlisle</td>
<td>Ms Lynn Stevenson</td>
<td></td>
</tr>
<tr>
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<td>Gastroenterologists: Dr Chris</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MacDonald</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr Denis Burke</td>
<td></td>
</tr>
<tr>
<td>West Cumberland Hospital, Whitehaven</td>
<td>Surgeons: Mr Ernest Jehangir</td>
<td>01946 523489</td>
</tr>
<tr>
<td></td>
<td>Mr F Smith</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr A Loganathan</td>
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</tr>
<tr>
<td></td>
<td>Gastroenterologists: Dr Babur</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Javaid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr Zahid Mahmood</td>
<td></td>
</tr>
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</table>
2.14 Communicating the Diagnosis

Informing the Primary Care Team
- When the diagnosis is apparent during the first consultation the general practitioner should be informed the same day, if possible or by noon the day following, preferably by fax.
- If the diagnosis is made subsequently as an outpatient, the GP should be informed within 24 hours of the patient being informed.
- The general practitioner should be made aware of the information which has been given to the patient and if possible an outline of the planned treatment.
- If the diagnosis is made in hospital, the primary care team should be informed prior to discharge from hospital.
- Subsequent alterations in prognosis, management or drug treatment of an outpatient should be communicated within 24 hours.
- Hospital nursing staff (colorectal nurse specialist, ward nurses) should ensure that relevant community nurses are also informed.

Informing the patient
- The patient should be informed of the diagnosis by a consultant or an appropriately experienced member of staff.
- Facilities should be available for the patient to be informed of the diagnosis during a private, uninterrupted consultation.
- Whenever possible a trained colorectal nurse specialist should be available during the consultation and should be available to provide additional counselling if required. If a colorectal nurse specialist is not available or the patient does not wish to meet the CNS, a contact name and telephone number should be offered to the patient.
- Whenever possible a relative or close friend should be present during the consultation and the subsequent journey home.
- Written information concerning colorectal cancer and its treatment should be available and offered to all patients.
- A prognosis should not be offered before adequate staging information is available.
2.15 NSSG Guidelines for Teenage and Young Adults

Teenage and Young Adults Peer Review Measures Topic 11-1C (Functions of the Network Site Specific Groups for TYA)

1. Teenage and Young Adult Pathway for initial Management

The NSSG has received the document named ‘NECN Teenage and Young Adult Cancer Pathway Guidance Paper’ and agrees to follow the generic TYA Pathway with any site specific variations to be documented. Please see Appendix 1 for pathway.

2. Teenage and Young Adult Pathway for Follow up on completion of first line treatment

Patients aged 19-24 years will adopt the site specific adult follow up pathway on completion of first line treatment. It is acknowledged by both the CYPCG and NSSGs across NECN that further work is required to develop these pathways for this age group and partly in response a TYA working group has been established to take this work forward.

If advice is required regarding the follow up care of a 19-24 year old patient, then the Lead TYA Clinician at the designated hospital or PTC should be contacted. Please see Appendix 2 for contact details.

Patients aged 16-18 years will continue to adopt the paediatric and adolescent follow up protocol of the PTC and all advice should be sought direct from the On Call Paediatric Oncologist at Royal Victoria Infirmary 0191 2336161. Paediatric Follow Up Protocols can be found on the CCLG website (2005 second edition) with the exception of trial specific protocols which can be requested via the Children’s Trial Co-ordinator based at the RVI.

3. Pathways for cases involving Specialised NHS services (Only Gynae and Sarcoma)

The Gynae NSSG and SAG reviewed and agreed the Specialised NHS Service pathway for patient’s age 16-24 years. This is attached in Appendix 3.
Appendix 1 – Teenage and Young Adult Pathway for initial Management

Teenage and Young Adult Cancer Pathway – 19 to 24 years old

- Urgent referral made by GP/0OPF/Screening
- Emergency Admission
- Other source of referral (screening/genetics clinic)

Assess as per local Tumour Site Specific protocol:
- Site specific diagnostic investigations
- May include diagnostic biopsies, but not definitive cancer surgery

Cancer diagnosed or highly suspicious
- Patient informed of joint MDT review and place of care options
- NB MDT discussion should take place in tumour site specific MDT within PTC/TYA designated hospital AND TYA MDT

- Review at TYA MDT
- Communication & Liaison between MDTs
- Review at PTC/TYA MDT site Specific haemat-oncology/solid tumour MDT

Joint treatment planning decision agreed, including:
- Diagnosis and treatment modalities/regimen
- Place of treatment delivery, depending on patient age:
  - 16-18 years - PTC facility only (Paediatric & Adolescent Oncology, RHV, Newcastle)
  - 19-24 years - choice of PTC facility (Adult Oncology, FH, Newcastle) or TYA Designated Hospitals
- Named consultant in charge of each treatment modality
- The arrangements/referrals to provide age appropriate support if the treatment is delivered outside the PTC facility
- The results of the discussion of fertility issues
- Consider entry into clinical trials
- Consider palliative & supportive care needs
- Identify patients key worker

- PTC (RM or Freeman) – treatment and ongoing care (with options for shared care or supportive care)
- Designated TYA hospital treatment with option of TYA MDT outreach support 19–24 yr

Haematological/Oncological Treatment (first definitive treatment)
- Surgery
- Chemotherapy
- Biological therapy
- Radiotherapy

Assess response at site specific haemat-oncology/solid tumour MDT
- Consider need for further/consolidation treatment

- Relapse or recurrent disease
  - Yes
  - Long term follow up protocol
  - Further Treatment
  - Palliative Care
- No
## Appendix 2 – Contact Details

<table>
<thead>
<tr>
<th>Name of NHS Trust and designated hospital site</th>
<th>Name of MDT</th>
<th>TYA Lead Clinician</th>
<th>TYA Lead Nurse</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principal Treatment Centre</strong></td>
<td>All MDTs:</td>
<td>Dr Emma Lethbridge</td>
<td>Suzanne Brand</td>
<td>0191 2138464</td>
</tr>
<tr>
<td></td>
<td>Breast</td>
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<td>Head &amp; Neck</td>
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<td>Lung</td>
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<tr>
<td></td>
<td>Neurooncology (Brain/Spinal, Pituitary, Skull Base)</td>
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<td></td>
<td>Sarcoma</td>
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<td>Supra T-cell Lymphoma</td>
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<td>Teenage and Young Adult MDT</td>
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<td>Specialist Upper GI</td>
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<tr>
<td></td>
<td>Specialist Urology</td>
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<tr>
<td><strong>Gateshead Health NHS Foundation Trust - at Queen Elizabeth Hospital</strong></td>
<td>Specialist Gynaecology</td>
<td>Ms Christine Ang</td>
<td>Alison Guest</td>
<td>0191 4456148</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
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<tr>
<td><strong>City Hospitals Sunderland NHS Foundation Trust - at Sunderland Royal Hospital</strong></td>
<td>Specialist Urology (testicular only)</td>
<td>Dr Scott Marshall</td>
<td>Faye Laverick</td>
<td>0191 5656256</td>
</tr>
<tr>
<td><strong>North Tees and Hartlepool NHS Foundation Trust - at University Hospital of North Tees</strong></td>
<td>All MDTs:</td>
<td>Dr Philip Mounter</td>
<td>Kat Dawson</td>
<td>01642 624458</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
<td></td>
<td><a href="mailto:Katherine.Dawson@nuth.nhs.uk">Katherine.Dawson@nuth.nhs.uk</a></td>
<td></td>
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<tr>
<td></td>
<td>Local Urology</td>
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<td>(temporary until March/April 2013)</td>
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<td></td>
<td>Local Upper GI</td>
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<td></td>
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</tr>
<tr>
<td><strong>South Tees Hospital NHS Foundation Trust - at James Cook University Hospital</strong></td>
<td>All MDTs:</td>
<td>Dr Dianne Plews</td>
<td>Jill Linton</td>
<td>01642 854381</td>
</tr>
<tr>
<td></td>
<td>Breast</td>
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<td></td>
<td>Specialist Urology</td>
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<tr>
<td><strong>North Cumbria University Hospitals NHS Trust at Cumberland Infirmary Carlisle and West Cumberland Hospital in Whitehaven</strong></td>
<td>All MDTs:</td>
<td>Dr Jonathan Nicoll</td>
<td>VACANT</td>
<td>01228 523444</td>
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<tr>
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<td>Breast</td>
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<td>Local Gynaecology MDT</td>
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<td>Local Upper GI MDT</td>
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<td>Local Urology MDT</td>
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<td>Local Skin MDT</td>
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</table>
Appendix 3 – NHS Specialised Services Pathway

**NHS Specialised Services – Referral Pathway for Primary Malignant Bone Cancer for patients age 16-24 years within the North of England**

1. **Paediatrician**
   - Referral to Sarcoma Service at Freeman Hospital Newcastle (FRH)
   - See Sarcoma pathway for contact details

2. **GP**
   - If age 16-18 years refer to PTC paediatric & adolescent MDT at RVI and Bone & Soft Tissue MDT at FRH
   - All patients to be discussed at the TYA MDT (see TYA pathway for contact details)

3. **Radiology/Incidental Finding**
   - If age 19-24 years refer to Bone & Soft Tissue MDT at FRH

4. **Necessary to refer to National Ewing’s Sarcoma MDT for discussion?**
   - **Yes**
     - Submit electronic MDT proforma and link in via WebEx.
     - Please see Bone & Soft tissue site specific pathway and/or paediatric & adolescent pathway for detail
   - **No**
     - Please see Bone & Soft tissue site specific pathway and/or paediatric & adolescent pathway for detail

5. 5 years post treatment for patients age 16-24 years

6. **Age 16-18 at time of diagnosis refer to long term follow up clinic/MDT**

7. **Age 19-24 yrs at time of diagnosis follow up on adult protocol**
3. **MULTI-DISCIPLINARY TEAMS**

i. **Colorectal Cancer MDTs**

The management of all patients with colorectal cancer should be the responsibility of colorectal cancer multi-disciplinary teams (MDT’s). Any patient under the care of a
clinician who is not a core member of such an MDT should be promptly referred to an appropriate team when colorectal cancer is suspected. All patients with colorectal cancer should have the benefit of a suitably informed surgical opinion and their management should be discussed by the multidisciplinary team. Patients with colorectal cancer should have access to a colorectal nurse specialist for advice and support from the time they receive the diagnosis.

The core team should include the following members:

- At least two specialist surgeons who have been trained in, and maintain a special interest in, techniques relevant to colorectal cancer, and who can demonstrate a high level of skill in this area. Each surgeon in the MDT should carry out a minimum of 20 colorectal resections with curative intent per annum.
- Oncologist. Whenever elective surgery is considered for patients with rectal cancer, a clinical oncologist should be involved in discussion about each patient before surgery is scheduled. A medical oncologist may also be included in the MDT if available.
- Diagnostic radiologist with gastro-intestinal expertise.
- Histopathologist.
- Skilled colonoscopist of any discipline (surgeon, physician, or specialist nurse).
- Clinical nurse specialists (CNSs). In many respects, the role of CNSs for colorectal cancer is similar to that of breast care nurses. A CNS should be available to provide support, assistance, information and advice to every patient. She/he should have specific expertise in colorectal cancer and in addition, should be trained in communication skills and counselling. These nurses should ensure that patients’ non-clinical needs – for example, for information and support – are met.
- Palliative care specialist (doctor or nurse), who should work with palliative care services in the community.
- Meeting co-ordinator, who should take responsibility for organising MDT meetings. The co-ordinator should have the authority to ensure that extended team members such as social workers and psychologists are available when required. The co-ordinator should also be responsible for feedback about patients referred to more specialised teams, and the return of such patients to the local colorectal cancer MDT.
- Team secretary who will provide clerical support for the MDT, recording all decisions made by the team and communicating appropriate information promptly to all those (such as GPs) who may require it. The co-ordinator may take the role of team secretary.

MDTs should maintain close contact with other professionals who are actively involved in supporting the patient or carrying out the treatment strategy decided by the core team (the extended team). Extended teams should include the following members:

- Gastroenterologist
- Liver surgeon who is a member of a liver resection MDT and can advise the colorectal cancer MDT
- Thoracic surgeon with expertise in lung resection
- Interventional radiologist with expertise in insertion of lower intestinal stents
- GPs/primary care teams
- Dietician
- Liaison psychiatrist/clinical psychologist
- Social worker
- Clinical geneticist/genetics counsellor
- Clinical trials co-ordinator or research nurse
ii. Organisation of Colorectal MDT meetings
Meetings should be arranged weekly in sessional time by the team co-ordinator. The co-ordinator should work with other members of the MDT to ensure that all the following patients are identified for discussion at the meeting, and that copies of their case notes, along with diagnostic, staging, and pathology information, are available for consideration at the meeting:

- Every new patient with a diagnosis of colorectal cancer. The MDT co-ordinator should work with pathologists, radiologists and endoscopists to ensure that all new cases are identified.

- All patients who have undergone resection with curative intent and where histopathological information is available.

- Any other patients whose management is thought by any member of the MDT to require discussion.

Each MDT should have adequate systems for recording decisions made at meetings and ensuring that appropriate action is taken to carry out these decisions. The meeting co-ordinator should keep a record of attendance by individual MDT members.

Treatment plans and other decisions relevant to specific patients are sent to their GPs as quickly as possible.

Patients must be aware of and agree to all health care professional referrals prior to referral.

iii. Anal Cancer MDTs
Cancer Networks and Radiotherapy Centres should work together to determine where patients with anal cancer should be treated. Clear referral systems should be established within each Network to ensure that responsibility for the management of every patient with anal cancer is passed to the appropriate MDT when the initial diagnosis is made.

Colorectal cancer MDT’s should refer patients with anal cancer to designated teams with expertise in the management of this condition; this will be Newcastle in the North of the Network and James Cook University Hospital in the South.

Anal cancer MDT’s should include the same range of disciplines as other colorectal cancer MDT’s (see above), but the members should also have specific expertise in the management of anal cancer. In addition, each anal cancer MDT requires access to plastic surgery and should have links with a gynaecological oncologist with expertise in vulval cancer. At least one, and preferably two, members of the anal cancer MDT should specialise in surgery for anal cancer.

Within each designated radiotherapy facility, responsibility for the treatment of patients with anal cancer should be taken by no more than two clinical oncologists, who should have specialist knowledge of chemoradiotherapy and be core members of the anal canal MDT.

iv. Early Rectal Cancer MDT’s
Early rectal cancer, where local excision can be considered as a treatment option, should be referred to an early rectal cancer MDT. These centres are, Newcastle for the north and North Tees for the south part of the network.

Where an early rectal cancer is referred to an Early Rectal Cancer MDT, basic staging investigations (CT or MRI) will usually be undertaken at the local Trust followed by MDT discussion. Following MDT discussion the treatment decision should be communicated to the local MDT for further action as required.
### 3.1 Colorectal Teams & MDTs

<table>
<thead>
<tr>
<th>Trust</th>
<th>Hospital</th>
<th>Clinician</th>
<th>MDT</th>
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</thead>
<tbody>
<tr>
<td><strong>County Durham &amp; Darlington NHS Trust (South Durham Locality)</strong></td>
<td>Darlington Memorial Hospital</td>
<td><strong>Surgeons:</strong>&lt;br&gt;Mr K Gunning&lt;br&gt;Mr T Ramalingam&lt;br&gt;Mr V Shanmugham&lt;br&gt;<strong>Gastroenterologists:</strong>&lt;br&gt;Dr P Trewby&lt;br&gt;Dr S Mitchell</td>
<td>Joint local MDT with UGI using videoconferencing facilities cross sites.</td>
</tr>
<tr>
<td></td>
<td>Bishop Auckland Hospital</td>
<td><strong>Gastroenterologists:</strong>&lt;br&gt;Dr A Dhar&lt;br&gt;Dr M Bateson&lt;br&gt;Dr P Matthews</td>
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</tr>
<tr>
<td><strong>North Tees &amp; Hartlepool NHS Trust</strong></td>
<td>University Hospital of North Tees / University Hospital of Hartlepool</td>
<td><strong>Surgeons:</strong>&lt;br&gt;Mr M Tabaqchali&lt;br&gt;Mr A Agarwal&lt;br&gt;Mr T Gill&lt;br&gt;Mr D Garg&lt;br&gt;Mr D Borowski&lt;br&gt;<strong>Gastroenterologists:</strong>&lt;br&gt;Dr D Dwarakanath&lt;br&gt;Dr J Metcalfe&lt;br&gt;Dr D Ashley&lt;br&gt;Dr M Rutter&lt;br&gt;Mr B Chaudhury&lt;br&gt;Mr J Vasani&lt;br&gt;Dr R Thomas&lt;br&gt;Dr J Hancock&lt;br&gt;Dr C Wells</td>
<td>Joint MDT including MDT for Early Rectal cancer. TEMs</td>
</tr>
<tr>
<td><strong>South Tees Hospitals NHS Trust</strong></td>
<td>The James Cook University Hospital</td>
<td><strong>Surgeons:</strong>&lt;br&gt;Mr S Wakefield&lt;br&gt;Mr M Jha&lt;br&gt;Mr D Aitken&lt;br&gt;Mr D Macafee&lt;br&gt;Mr Reddy&lt;br&gt;<strong>Gastroenterologists:</strong>&lt;br&gt;Dr P Cann&lt;br&gt;Dr J Greenaway&lt;br&gt;Dr J Silcock&lt;br&gt;Dr A Douglass&lt;br&gt;Dr H Dallal&lt;br&gt;Dr Z Suvakovic (Associate Specialist)</td>
<td>Local MDT and Anal Cancer MDT</td>
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<tr>
<td>Friarage Hospital, Northallerton</td>
<td></td>
<td><strong>Surgeons:</strong>&lt;br&gt;Mr M Clarke&lt;br&gt;Mr V Garud&lt;br&gt;<strong>Gastroenterologists:</strong>&lt;br&gt;Dr M Connolly</td>
<td>Local MDT (joint with UGI)</td>
</tr>
<tr>
<td>Trust</td>
<td>Hospital</td>
<td>Clinician</td>
<td>MDT</td>
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<tr>
<td>County Durham &amp; Darlington NHS Trust (North Durham Locality)</td>
<td>University Hospital of North Durham</td>
<td>Surgeons: Mr I Bain, Mr J Cundall, Miss S Green, Miss K Grant, Miss S Noblett Gastroenterologists: Dr P Matthews, Dr D Kejariwal, Dr S Saksena</td>
<td>Local MDT</td>
</tr>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Sunderland Royal Infirmary</td>
<td>Surgeons: Mr J Corson, Mr G Farook, Mr P Surtees Gastroenterologists: Dr J Painter, Dr D Hobday, Dr Mitchison, Dr D Nylander</td>
<td>Local MDT</td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Queen Elizabeth Hospital, Gateshead</td>
<td>Surgeons: Mr WJ Cunliffe, Mr DA Browell, Mr M Mercer-Jones, Mr M Katory Gastroenterologists: Dr K Saeed, Dr J Singh</td>
<td>Local MDT and Early Rectal MDT</td>
</tr>
<tr>
<td></td>
<td>Royal Victoria Infirmary</td>
<td>Surgeons: Mr Hugh Gallagher, Mr Stefan Plusa, Mr Ben Griffiths, Mr Jon Hanson, Mr Fintan Bergin Gastroenterologists: Dr Chris Dipper, Dr Sarah Hearnshaw, Dr Mel Gunn, Dr John Mansfield</td>
<td>Joint MDT including MDT’s for Early Rectal Cancer and Anal Cancer</td>
</tr>
<tr>
<td></td>
<td>Freeman Hospital</td>
<td>Surgeons: Mr Alan Horgan, Mr Paul Hainsworth Gastroenterologists: Dr Nick Thompson</td>
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<td>Trust</td>
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<td>Clinician</td>
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</tbody>
</table>
| Northumbria Healthcare NHS Foundation Trust | Wansbeck General Hospital                     | **Surgeons:** Miss S Mills  
Mr M Bradburn  
R Kalbassi  
**Gastroenterologists:**  
Dr W Gregory  
Dr R Thomson  
Dr C Haigh  
Dr A Bhagwat  
Dr A Jayaprakash | Joint MDT |
| North Tyneside General Hospital and Hexham General Hospital | **Surgeons:**  
Mr B Slater  
Mr S Kelly  
Mr K Seehra  
Mr B Box  
**Gastroenterologists:**  
Dr M Hayat  
Professor R Barton  
Dr M Welfare  
D M Warren  
Dr J Parr  
Dr T Lee | |
| Hexham General Hospital               | **Surgeons:**  
Mr B Slater  
Mr B Box  
**Gastroenterologists:**  
Dr Abbas  
Dr T Lee | |
| North Cumbria Acute Hospitals NHS Trust | Cumberland Royal Infirmary                    | **Surgeons:**  
Mr Frank Hinson  
Ms Lynn Stevenson  
**Gastroenterologists:**  
Dr Chris MacDonald  
Dr Denis Burke | Joint MDT |
| West Cumberland Hospital, Whitehaven | **Surgeons:**  
Mr Ernest Jehangir  
Mr Harish Babu  
**Gastroenterologists:**  
Dr Babur Javaid  
Dr Zahid Mahmood | |
| South Tyneside NHS Foundation Trust   | South Tyneside General Hospital               | **Surgeons:**  
Mr CJ Pritchett  
Mr V Joypaul  
Mr R Fenchel  
Ms B Weber  
**Gastroenterologists:**  
Dr C Rees  
Dr S Panter | Local MDT |
**COLORECTAL CANCER: CLINICAL SERVICES**

**Patient Centred Care**
- Screening
- Symptomatic
  - Non-specific symptoms: referred via other specialities
- Emergency
  - 20%
- High risk
  - 5%

**Access**
- 75%

**Primary Diagnosis**
- Diagnostic procedures as necessary
  - Rectal cancer
    - 33%
  - Colon cancer

**Team**
- Multi-disciplinary review

**Radiotherapy**
- Radiotherapy

**Surgery**
- Surgery
  - 80%
  - Multi-disciplinary review
  - ?chemotherapy (up to 30%)
  - Inoperable cancer
    - 20%
  - Palliative surgery
    - 10%

**Chemotherapy**
- Follow up

**Follow up**
- Recurrent & Advanced Disease
  - Disease free
    - (35%)
  - Recurrence
    - (35%)
- Palliative care
  - (65%)

**Palliative Care**
- Disease free <1%
IMAGING GUIDELINES IN COLORECTAL CANCER

Application of guidelines to individual patients should take into account:
- clinical scenario
- patient’s condition
- presence of bowel obstruction
- need for urgent intervention
- local availability of resources and expertise

IMAGING THE COLON

- Whenever possible the entire colon should be visualised prior to surgery by colonoscopy/sigmoidoscopy with completion barium enema/CT colonography.
- If not achieved before surgery, early colonoscopy (within 6 months following surgery) should be performed.

RECTAL CANCER

- Tumours with a distal margin <15cm from the anal verge on rigid sigmoidoscopy.
- All patients should undergo staging with pelvic MRI and CT scanning to include the entire thorax, abdomen and pelvis.
- Early T1 lesions are best assessed with MRI and transanal ultrasound which may require onward referral depending on local expertise.
- In advanced lesions careful assessment of fixity may require examination under anaesthetic in conjunction with pelvic MRI. This is important in the selection of patients for pre-operative downstaging chemoradiotherapy.

COLONIC TUMOURS

- All patients should undergo staging by CT of the thorax, abdomen and pelvis.
- CT effectively stages local disease extent and the presence of intra-abdominal and intrathoracic metastatic disease.

ANAL CANCER

- All patients should be staged with CT of the thorax, abdomen and pelvis.
- Local disease extent is staged with MRI. If local equipment and skills permit this can be undertaken locally prior to supra-regional referral.
6. SURGICAL GUIDELINES

16.4 Investigation and Diagnosis

Access
Waiting times

- Patients with suspected colorectal cancer should be able to see a specialist within 2 weeks of their GP deciding they need to be seen urgently and requesting an appointment.
- When colorectal carcinoma is suspected, the time interval between the patient being seen and investigation should be as short as possible.
- National Guidelines for maximum lead in time should be achieved. 62-day target (85%) and 31 day target (96%).
- GP informed within 24 hours of diagnosis given to patient.

Process
Investigation of the colon

- Complete examination of the large bowel can be achieved by colonoscopy, a double contrast barium enema, or CT colonography. Patients in whom colonoscopy has failed may need barium enema or CT colonography to examine the whole bowel.
- Doctors carrying out colonoscopy should audit their results, and expect to achieve a high total colonoscopy rate with a low perforation rate. Results of diagnostic tests should be audited and further training given when completion rates are below acceptable levels. (Please see JAG/National Endoscopy Team guidelines for up to date % figures).
- When findings are unclear, alternative diagnostic investigations should be used.
- Histology should be obtained from all rectal tumours.

Pre-operative assessment
It is recommended that all patients have:
- Preoperative full blood count, also urea and electrolyte estimations.
- Local staging of rectal cancer with MRI.
- A pre-operative examination under anaesthetic may be required in some cases. Fixed tumours should be offered preoperative long course chemoradiotherapy.
16.4 Treatment

Radical Surgical Excision is the only treatment which offers the prospect of cure for colorectal cancer with the exception of some early rectal lesions which may be treated with local excision.

Pre-operative radiotherapy should be considered for tumours of the rectum, which have higher risk of local recurrence.

Access
Waiting times
- It is recommended that surgeons should expect to achieve average waiting times of 31 days or less between making a decision to treat and start of treatment.

Experience of the doctor
- It is recommended that surgeons with appropriate training and experience should treat colorectal cancer. All patients with colorectal cancer should be offered the benefit of a suitability informed surgical opinion.
- Time and facilities must be made available for continuing training for surgeons in techniques, which lead to better outcomes for colorectal cancer patients. Trust and clinical teams should promote the development and audit of surgical techniques to improve outcome.

Process
- Preparation for surgery
In making such a decision it is important to involve the patient and/or close relatives so that the underlying reasoning is clear and acceptable to all concerned. Given that surgery is to proceed there are certain fundamental aspects of preparation that deserve consideration, and these are listed below:
  - Informed consent
  - Preparation for stoma formation
  - Enhanced surgical recovery programme
  - Thrombo-embolism prophylaxis
  - Antibiotic infection prophylaxis

Adherence to these protocols should be audited.

- Informed consent
All patients undergoing surgery for colorectal cancer should give informed consent. The consent should be obtained by a doctor who fully understands the nature of the operation and is able to answer any pertinent questions the patient or relatives may have. The risks of death and morbidity must be carefully explained; in particular the likelihood of requiring a stoma and developing urinary problems and impotence after rectal surgery should be discussed.
**Preparation for stoma formation**
All patients should have the opportunity to discuss treatment options with the Colorectal Nurse Specialist and the referral should be made at the earliest opportunity to allow adequate time for preparation.

**Enhanced surgical recovery programme (ESRP)**
Consideration should be given to incorporate all or part of these programmes into routine practice. Guidelines not covered elsewhere include Universal access to epidural anaesthesia, Selective use (or avoidance) of mechanical bowel preparation, Pre-operative carbohydrate drink, Pre and Pro biotics, Early mobilisation, Single dermatone incisions or laparoscopic assistance (J.M).

**Thromboembolism prophylaxis**
The use of subcutaneous heparin, lower molecular weight heparin (LMWH) and intermittent compression have been proven to reduce the risk of DVT. Graduated stockings alone are less effective than other measures. It is recommended that local guidelines should conform to NICE CE46 for venous thromboembolism. (LMWH and thigh length stockings unless contraindicated).

**Antibiotic prophylaxis**
There is now very good evidence that prophylactic administration of antibiotic can decrease morbidity, shorten hospital stay and reduce infection-related costs after general surgical operations.

It is therefore recommended that all patients undergoing surgery for colorectal cancer have antibiotic prophylaxis. It is impossible to be dogmatic as regards the precise regime, but a single dose of appropriate intravenous antibiotics appears to be effective.

**Bowel preparation**
Selective use (or avoidance) of mechanical bowel preparation. Bowel preparation should be considered before restorative rectal resection.

**Definition of rectal tumour**
It has been agreed by the Expert Advisory Committee that any tumour whose distal margin is seen at 15cm or less from the anal verge using a rigid sigmoidoscope should be classified as rectal. **This measurement should be recorded. Tumours above this level are termed colonic.**
16.4 Surgical Technique

i. Resection

Colonic Cancer.

There is little controversy regarding the resection of colonic tumours.

- Excision with appropriate mesenteric vascular ligation and lymphadenectomy is to be recommended when there are no obvious metastases.
- There has been a tendency to move away from the segmental resections for tumours of the transverse colon and splenic flexure in favour of extended right hemicolectomy, and although there have been no randomised trials, this is widely accepted as being safer.
- Laparoscopic (including laparoscopically assisted) resection is recommended as an alternative to open resection for individuals with colorectal cancer in whom both laparoscopic and open surgery are considered suitable (NICE TA 105).

Rectal cancer.

Here, resection technique is of great importance.

- Complete excision of the mesorectum is associated with a low rate of local recurrence. It is recommended that total mesorectal excision should be performed for tumours in the lower two-thirds of the rectum, either as part of a low anterior resection or an abdomino-perineal excision (APER).
- In tumours of the upper rectum the mesorectum should be divided no less than 5cm below the distal margin of the tumour. Care should be taken to preserve the pelvic autonomic nerves and plexuses wherever possible, and perforation of the tumour during operation should be avoided.
- Development of the extra levator abdomino perineal excision of rectum (eLAPE) should be considered (wider “cylinder” of dissection +/- prone dissection).
- The formation of a temporary defunctioning stoma should be considered after low anterior resection.

ii. Anastomosis

- Anastomotic dehiscence is a major source of operative morbidity and mortality after resection for colorectal cancer. Its rate is known to vary greatly from one surgeon to another and it is known to be more common after anterior resection of the rectum than after colonic resection. It is not possible, however, to be dogmatic as regards methods of anastomosis.
- Cytocidal washout prior to anastomosis should be used where it is possible to exclude the tumour from the field of irrigation with a clamp/stapling device.
- Stapling, has however, made the performance of the ultra-low anastomosis after interior resection much more feasible. As it is known distal intramural spread rarely extends more than 1cm beyond the palpable edge of the tumour, the ability to obtain distal clearance of 1cm or more should therefore allow an anterior resection, which is oncologically sound, so long as it is combined with total mesorectal excision. Unfortunately, such anastomoses are associated with a high leakage rate, even when the same surgeon has very acceptable leakage rates from other types of resection. There is evidence that a defunctioning stoma can ameliorate the consequences of leakage, and should be considered.
Thus, although no definite recommendations can be made regarding anastomotic
technique, the interrupted serosubmucosal method has the lowest reported leak
rate and stapling facilities ulr-low pelvic anastomoses. After anterior resection
and total mesorectal excision the judicious use of a tempory defunctioning stoma
is recommended, and the formation of a colonic pouch should be considered.

LOCAL EXCISION
Local excision for cure in rectal cancer should be restricted to pT1 tumours of low
histological grade in one of the listed centres. If subsequent histological examination of
the lesion reveals incomplete excision or a more advanced lesion, radical resection
should be recommended. It must be accepted therefore, that subsequent histopathological examination of tumours thought to be suitable for local excision will
identify a small proportion, which require more radical surgery.

LAPAROSCOPIC SURGERY
Laparoscopic, including laparoscopically assisted) resection is recommended as an
alternative to open resection for individuals with colorectal cancer in whom both
laparoscopic and open surgery are considered suitable (NICE TA 105).

Laparoscopic surgery should only be performed by a suitably trained laparoscopic
colorectal surgeon. All data must be prospectively audited.

It is recommended that Surgeons familiarise themselves with the techniques and results
of laparoscopic surgery for colorectal cancer. Pathways should exist to provide patients
that request laparoscopic dissection after discussion about treatment options. See
Appendix 16.8 for list of Laparoscopic Colorectal Cancer Surgical Practitioners.

THE NETWORK CRITERIA AND REFERRAL GUIDELINES ON LAPAROSCOPIC
COLORECTAL CANCER SURGERY

The NSSG, in consultation with the MDTs, has agreed that the minimum network criteria
for a patient to be offered laparoscopic colorectal cancer surgery. The criteria should
include the following:
• BMI less than 30;
• no previous major abdominal surgery;
• avoiding obvious T4 cancers on pre-op staging;
• those tumours not requiring TME (Total Mesorectal Excision);
• no clinical or radiological signs of obstruction.

In appropriate circumstances, experienced surgeons should offer laparoscopic resection
to other patients as well.

The MDT will ensure patients are allocated a trained laparoscopic surgeon.

If laparoscopic surgery is not available due to lack of a trained surgeon, patients will be
referred to a neighbouring MDT.

RECORD KEEPING
There are existing guidelines issues by the Royal College of Surgeons and it is
recommended that these should be adhered to for patients with colorectal cancer. It is
therefore recommended that a checklist be used to construct an operation note for
patients undergoing surgery for colorectal cancer. Surgeons are expected to know their own results with regards to mortality and major morbidity.

**Information required for the Northern Colorectal Cancer Audit and the Cancer Registry must be clearly recorded in the patient’s notes.** The distance of the tumour from the anal verge and the fixity of rectal cancers should be recorded pre-operatively. The following should be recorded in the operation note:

- Surgeon, assistant and anaesthetist
- Presence or absence of metastases
- Presence or absence of synchronous tumours
- Curative or palliative intent stated
- Luminal cytoidal wash-out for rectal and rectosigmoid cancers
- Height of anastomosis above anal verge
- ASA grade
ANAL CANCER (SEE APPENDIX 16.3)
Patients presenting with squamous cell carcinoma of the anus (or rectum) should be referred directly to the Anal Cancer MDT at the Cancer Centre using the agreed MDT referral forms.

Basic staging investigations (CT or pelvis and abdomen or pelvic MRI) will usually be undertaken at the local Trust followed by MDT discussion at the tertiary centre MDT. Following MDT discussion the treatment decision should be communicated to the local MDT for further action as required.

EARLY RECTAL CANCER (SEE APPENDIX 16.4)
Incidents of early rectal cancer (T1 tumours) are likely to increase through the Bowel Cancer Screening programme. Where the local MDT is not recognised as a local excision MDT in the management of T1 cancers, patients will be referred to one of the appropriately identified MDT’s.

Basic staging investigations (CT or MRI) will usually be undertaken at the local Trust followed by MDT discussion at the ‘Early Rectal’ MDT. Following MDT discussion the treatment decision should be communicated to the local MDT for further action as required.

Where patients meet criteria for TEMS surgery, they should be referred to a named clinician in a Centre specialising in this technique. For this area this could be one of two Centres, determined by geography/local team or patient choice:

   Paul Hainsworth – Newcastle
   Talvinder Singh Gill – North Tees
16.4 Management of Surgical Emergencies

Colorectal cancer frequently presents as an emergency, and when it does so it is associated with a high mortality. The commonest emergency presentation of colorectal cancer is obstruction. Bleeding and perforation are much less common. A clinical diagnosis of obstruction should be confirmed by a plain abdominal radiograph and a water-soluble contrast enema, sigmoidoscopy or CT scan to exclude pseudo-obstruction.

In the absence of perforation or life threatening bleeding, operation for large bowel obstruction can be regarded as an urgent rather than emergency procedure, and every effort should be made to operate during the day with experienced surgeons and anaesthetists. An exception to this may be the situation where ileo-caecal valve is competent, and the caecum in danger of perforation.

Consideration and provision of a colonic stenting service as a bridge to surgery in selected patients should be made based on the results of these tests and the above information (See Appendix 16.6).

Where colonic stenting is not considered appropriate, the patient with obstruction should be carefully prepared for surgery, with adequate fluid resuscitation monitored by blood pressure and urine output measurements at the very least. Antibiotic and DVT prophylaxis should be administered. Centres undertaking this type of surgery should have an intensive care unit or high dependency unit, and these should be used for postoperative and occasionally preoperative care when appropriate.

The type of surgery, which should be undertaken for large bowel obstruction, is to some extent controversial, but broad guidelines can be given. For right-sided lesions, primary resection and ileocolic anastomosis is usually feasible. For left sided lesions, the use of a simple defunctioning colostomy is not generally favoured except in extreme circumstances, where the patient is not considered fit for a more extensive procedure. Rather, immediate resection of the obstructing cancer should be carried out, either as a Hartman’s procedure with end colostomy, or, when conditions are favourable, as a primary resection with anastomosis. If the latter option is chosen, this can be done either as a segmental resection with on table colonic lavage or as a subtotal colorectomy with ileorectal anastomosis. A stoma should only be formed when it is in the patients best interests and not because of the lack of an experienced surgeon.

Colonic stenting should be considered as a means of palliation/bridge to elective surgery.

Where surgery has to be undertaken by someone other than a member of the Colorectal team due to it being a life threatening situation, the patient should be referred to a member of the Colorectal MDT (generally the Colorectal Nurse Specialist) as soon as possible after surgery, but within the 24 hour agreement, to ensure they are discussed at the next MDT.

In summary, emergency surgery should be carried out during daytime hours as far as possible by experienced surgeons and anaesthetists. In patients presenting with obstruction, measures should be taken to exclude pseudo-obstruction before operation, and stoma formation should be carried out in the patient’s interests only – not as a result of lack of experienced surgical staff. The overall mortality for emergency/urgent surgery should be 20% or less.
16.4  Treatment of Advanced Disease

i. Locoregional recurrence
The three-year survival of patients with locoregional recurrence of colorectal cancer is in the regions of 10% and while radiotherapy and chemotherapy may offer useful palliation, toxic side effects occur, and there is no randomised trials showing improved quality of life or survival. There is some evidence that resection of locally recurrent disease may improve survival but this has not been proven in a randomised trial.

ii. Inoperable primary disease
Radiotherapy is useful for relieving pelvic pain but is associated with complications. This may be accompanied by stenting as appropriate. In a small group of patients, clinically irresectable tumours may be rendered operable by radiotherapy, and such patients have a much better prognosis that those whose tumours remain in-situ. Chemotherapy may be useful in advanced disease although its specific role in the treatment of primary disease alone is not clear.

iii. Metastatic disease
The liver, followed by the lung, is the commonest site for metastatic colorectal cancer. In most instances, systemic treatment is the only therapeutic option, although in a small number of cases surgical excision of metastases or regional hepatic arterial chemotherapy may be feasible.

Considerations should also be given to surgical treatment in selected patients with locally advanced and metastatic disease. In particular, the patient with limited hepatic involvement should be considered for partial hepatectomy by an experienced liver surgeon. Patients with a small number of metastases in the liver or lung may benefit from appropriate resection and with careful patient selection, hepatectomy for colorectal metastases can be associated with a 5-year survival of around 33%. Patients for consideration of such surgery should be referred to a specialist Centre in Newcastle or Leeds taking into account the patient’s preferences.

Patients who are not initially a suitable candidate for liver surgery may respond to chemotherapy first and subsequently become suitable. It is important that these patients are also considered at the designated liver MDT’s.

Patients with limited hepatic involvement with metastatic disease may be suitable for synchronous hepatic resection. This situation should be discussed with the specialist Liver Unit.

Hepatic resection should only be performed by appropriately trained surgeons.

The Local MDT will arrange the initial staging scans and upon referral of the patient to the designated liver surgery team these scans will be forwarded. The designated liver MDT will review these scans and arrange for further investigations if required. If after review of the patient at the liver MDT, liver surgery is deferred pending response to initial chemotherapy, the Liver MDT will either arrange for restaging scans or review restaging scans performed at the local MDT’s hospital.

16.4  Palliative Surgery
- In advanced disease effective palliation with preservation of an optimal quality of life should be the aim of therapy.
Palliation by means of intraluminal stenting should be offered to prevent obstruction of the bowel thus avoiding the operative mortality and morbidity of an unnecessary resection.

In a small number of patients, consideration should be given to resection of a primary colorectal cancer to avoid obstruction and pain due to local progression of the disease.

Endoscopic laser ablation/Argon beam Photodiathermy may be effective in the palliation of the symptoms of some colonic and rectal cancers and is available in some Centre.

In some circumstances it may be possible to fashion a palliative stoma by the trephine technique or laparoscopically assisted without having to perform an extensive laparotomy.

16.4 Outcome
It is recommended that surgeons audit their performance of rectal resection with regard to:

a) Rates of permanent stoma formation
It is recommended that the proportion of rectal tumours treated by APER should be 30% or less. To allow useful interpretation of APER rate documentation of the height of distal border of tumour from anal verge/or dentate line should be included in the operation notes.

b) Rates of curative resection
Curative resection can be defined as removal of all macroscopic disease at the time of operation, backed up by histological evidence that the resection margins of the specimen submitted to the pathologist are clear of tumour (Phillips et al 1984IV). The term is still imprecise, however if a surgeon is in doubt this should be stated, and if residual tumour is thought to remain local to the resection field it should be biopsied (UKCCCR 1989 IV).

It is recommended that the term curative resection should be based on histological confirmation of complete excision or residual tumour. Surgeons should expect to achieve an overall curative resection rate of 60% but it is appreciated that this will depend at least in part on the stage at which patients present.

Biopsy of liver metastases where curative liver resection is possible is not recommended unless requested by the Hepatobiliary Team.

c) Peri-operative complications
Wound infection
It is therefore recommended that major wound infection rates after surgery for colorectal cancer should be less than 10%.

Anastomotic dehiscence
Anastomotic dehiscence is a major source of operative morbidity and mortality after resection for colorectal cancer. It is recommended that surgeons should carefully audit their leak rate below 8% for anterior resections and below 4% for other types of resection. However, surgeons performing appreciable numbers of ultra low pelvic anastomoses can expect a higher leak rate for this procedure, and the judicious use of a defunctioning stoma is recommended.

d) Peri-operative mortality
It is therefore recommended that surgeons should expect to achieve an operative mortality of less than 20% for emergency surgery and 5% for elective surgery for colorectal cancer.

e) Survival and recurrence rates

It is recommended that surgeons should audit the survival rates of their patients, and examine carefully their practice with a view to meeting or improving on targets set by national statistics. It is therefore recommended that surgeons should audit their results, and aim to achieve local recurrence rates after curative resection of 10% or less.

f) Histological evaluation of resection margins in total mesorectal excision specimens.

Continuing Care

- Before discharge from the hospital the consultant and/or the clinical nurse specialist should ensure that the patient has been given all the information about the condition and its treatment that they wish to know. They should have telephonic access if they are going through enhanced recovery programme and are discharged very early.
- Information should be given to the patient in the company of a spouse, relative or friend. A record should be made of the information given in the case notes and should be made available to the general practitioner.
- Patients who have a stoma should have been given instruction by a specialist stoma nurse prior to discharge, and arrangements made for a home visit by a colorectal nurse specialist within one week of discharge. Also, the patient should be given a contact number in the community where help can be obtained in the event of problems arising with the stoma.
- Patients should understand that further advice, information and support are provided by hospital or community based colorectal nurse specialists (where available).
- Patients who have had a rectal resection and, in particular, a low anterior resection would be warned that they may suffer with bowel problems and they should have access to advice concerning this problem.
- All patients who have had a bowel resection for carcinoma should be offered at least one outpatient appointment irrespective of the individual specialist policy of disease follow-up.

16. NECN GUIDELINES FOR PATHOLOGY REPORTING

The Colorectal multidisciplinary team must include a pathologist or pathologists with a special interest and expertise in colorectal pathology, with designated time for colorectal cancer work. The pathology service of departments active in the Bowel Cancer Screening Programme must be organised according to the NHSBCSP guidelines and pathology specimens from this programme should be reported in a timely manner and include the RCPPath minimum dataset – link to both sets of guidelines as follows:-

http://www.rcpath.org/resources/pdf/G049-ColorectalDataset-Sep07.pdf

Histopathology Standards:
Histopathology departments should have access to specimen photography facilities. Departments should also consider investment in megablock technology to facilitate assessment of mesorectal excision specimens.

Histopathology procedures and reporting should be as described in the RCPath guidelines for colorectal cancer reporting (*Dataset for colorectal cancer (2nd edition)*) and, for bowel cancer screening pathology cases as described in the NHSBCSP document (*Reporting Lesions in the NHS Bowel Cancer Screening Programme*).

Histopathology laboratories should work towards nationally defined accreditation standards. It is desirable that Pathologists reporting colorectal cancer routinely should participate in a relevant EQA National scheme.

It is the responsibility of the operating surgeon to ensure that the specimen is orientated and marked for the pathologist as agreed locally, and to ensure that the pathologist is informed of any preoperative treatments, as these may influence histopathological interpretation.
Follow-up policy after an apparently curative resection for colorectal cancer remains controversial and there is no consensus among clinicians about the optimum practicable regimen. Furthermore there is no evidence that even the most intensive forms of follow-up influence overall survival. Despite this the majority of patients do value the reassurance that follow-up apparently offers and the majority of surgeons do offer some form of follow-up. It should be remembered that a small but significant proportion of patients may benefit from the early detection of hepatic metastases if they prove to be suitable of resection. Unfortunately it is relatively uncommon for local recurrence of colorectal cancer to be cured by further resection.

Patients who will be followed for the detection of recurrent disease
- Patients who are fit for surgery or chemo/radiotherapy for recurrent disease.
- All patients should be seen within three months of surgery to assess any late complications.
- Follow-up should be offered to those patients who specifically request it for psychological reassurance.
- Patients should be reassured that the risk of recurrence declines rapidly after the first two years after treatment so that by year 5, recurrence is very unlikely.

The following suggestions are made:

CEA
- CEA to be measured on every patient pre-operatively and on every follow-up visit.
  If the value of CEA doubles or rises continually a CT scan of the abdomen and chest or a CT scan of the abdomen plus a chest x-ray will be performed.

Colonoscopy
- A colonoscopy should be carried out within 6 months of surgery to confirm a clean colon, if a full colonic assessment was not performed prior to initial surgery.
- A colonoscopy at 12 months after resection is advised by current NICE guidelines.
- In younger patients and those with a history of multiple colonic lesions, regular colonoscopy at 5 yearly intervals should be considered.

Liver imaging
- A CT scan of the liver is the preferred investigation of choice for liver screening. There should be a minimum of 2 CT scans of the chest, abdomen and pelvis in the first 3 years of follow-up.
- All patients who have had a Total Mesorectal Excision as a potentially curative resection should be followed up for the purpose of auditing the surgeon’s performance of the technique.
- Audit of the outcome of treatment requires accurate and complete collection of data which may be difficult to obtain by postal questionnaire or through the general practitioner. Follow-up may be justified for this reason alone.

Follow-up visits
- Patients who have not had adjuvant treatment will be followed up by the surgeons.
- As possible attendances will alternate between surgery and oncology. The frequency of visits will vary up to every 3-6 months for the first 2 years and every 6-12 months between years 2 and 5 postoperatively.
- If possible combined Surgery-Oncology clinics will be established where patients would be reviewed jointly and systematic computer based records will be created.
9. ONCOLOGY FOR COLORECTAL CANCER

9.1 General
New patients referred to an oncology clinic at any other hospital within the North of England Cancer Network are usually seen by a consultant oncologist or deputy within two weeks upon receipt of a referral.

Patient assessment.
A patient assessment is carried out; following this a treatment decision is made. A full explanation of the treatment and common potential side effects is given to the patient, either by the doctor, a clinic radiographer or chemotherapy nurse who are usually present in the clinic to give additional support to the patient.

Clinical trials.
When a patient is eligible for a clinical trial, this will be discussed with the patient and he or she will be given ample time to consider participation.

Investigations required at first referral
1. MDT outcome, endoscopy report, scan reports, histology report, operation notes.
2. Routine blood tests, including CEA
3. Further staging investigations when appropriate (chest x-ray, USS liver, CT scan abdomen and pelvis)
4. Height and weight for chemo patients

Treatment
Patients are subsequently listed for their treatment without unnecessary delay, although there may be a short waiting time for radiotherapy.

Patients referred for short course pre-operative radiotherapy for rectal cancer are fast tracked in the system.

9.2 Radiotherapy
These guidelines are based on the NICE Clinical Guideline Colorectal cancer: the diagnosis and management of colorectal cancer November 2011.

Decisions about radiotherapy should be based on MRI scanning of the pelvis and MDT discussion and should involve discussion with the patient about the risk of local recurrence, short- and long-term morbidity and late effects.

Rectal cancers can be divided into three groups according to the risk of local recurrence as predicted by MRI as follows:-

High risk a threatened (<1 mm) or breached resection margin or low tumours encroaching onto the inter-sphincteric plane or with levator involvement

Moderate risk any cT3b or greater, in which the potential surgical margin is not threatened or any suspicious lymph node not threatening the surgical
resection margin or
the presence of extramural vascular invasion*

Low risk cT1 or cT2 or cT3a and
no lymph node involvement

Low risk rectal cancer
Low risk tumours (T1-3a N0) are adequately treated with surgery alone and do not require pre-operative radiotherapy.

Short-course pre-operative radiotherapy reduces the risk of local recurrence in cT2 tumours but as the absolute risk is so low treatment is not justified if there is high quality staging and surgery. Do not offer short or long course radiotherapy to patients in this group except as part of a clinical trial.

Moderate risk rectal cancer (T3b-4 or N1-2 or with extra mural lymphovascular invasion)
Short course pre-operative radiotherapy followed by immediate surgery reduces the risk of local recurrence for these tumours and should be considered for all patients. Treatment should consist of 5 fractions of 5 Gy in 5 days followed by surgery within 7 days. Radiotherapy for curable rectal cancer should always be conformally planned using 4 fields. Chemo-radiation with an interval to allow tumour shrinkage may be considered for patients with tumours borderline between moderate and high risk.

High risk rectal cancer.
These tumours should be offered pre-operative chemo-radiation to 45-50.4 Gy in 25-28 fractions with continuous infusion 5FU (200mg/m2/day) or capecitabine (825 mg/m2 b.d. throughout treatment, weekends included). Restaging is carried out at 6-10 weeks after treatment followed by multi-disciplinary assessment of operability.

In patients not thought fit for chemo-radiation an alternative is to use 5x5Gy followed by delayed surgery but this should be regarded as an experimental strategy.

Contact therapy/brachytherapy
Some patients with rectal cancer may be suitable for contact therapy. These may include early cancers and more advanced cancers in patients who are either medically unfit for, or who decline, surgery. In the latter group contact therapy will usually be given as a pre or post treatment boost to radical chemoradiation. Referral should be made after local MDT discussion to a specialist in contact therapy. (Currently patients are referred to Dr Sun Myint at Clatterbridge Centre for Oncology).

Post-operative radiotherapy for rectal cancer.
Patients who have received pre-operative radiotherapy should not routinely receive post-operative radiotherapy.

Patients with histological CRM involvement who have not had radiotherapy should receive post-operative chemoradiation to 45-54 Gy plus 5FU or capecitabine as above.

Radical chemo-radiation should also be offered to fit patients who develop isolated local recurrence of rectal cancer.
New techniques for rectal cancer.
Approaches such as IMRT and the use of more than one chemo-sensitiser (e.g. oxaliplatin + capecitabine) are experimental and should not be used outside well-designed clinical trials.

Consideration should be given to entering patients into clinical trials e.g. the forthcoming ARISTOTLE trial

Palliative radiotherapy for patients with rectal cancer.
Radiotherapy may provide effective palliation for symptoms such as tenesmus, pelvic pain, bleeding, painful bone metastases and haemoptysis from lung metastases. Dose may be single fraction of 8 Gy, 5x400cGy or 10x300cGy according to clinical situation and Performance Status.

Radiotherapy for patients with colon cancer
Post-operative chemo-radiation may be offered to selected patients with colon cancer who are thought to have residual tumour after surgery. Treatment schedule is as above.

10. CHEMOTHERAPY

10.1 Adjuvant chemotherapy

Relevant NICE guidance
TA100 April 2006 – Review date for NICE June 2009 (no new guidance).

The following are options for the adjuvant treatment of patients with Stage 3 (Dukes C) colon cancer following surgery for the condition:

- Capecitabine monotherapy
- Oxaliplatin in combination with 5FU and folinic acid

NECDAG guidance
2010

The following are options for the adjuvant treatment of patients with Stage 3 (Dukes C) colon cancer following surgery for the condition:

- Oxaliplatin combined with capecitabine (XELOX) or Oxaliplatin in combination with 5FU and folinic acid (FOLFOX).

Summary of current recommendations:

- Chemotherapy should be considered for patients with Dukes’ stage C and high risk Dukes’ stage B disease if they are physically and psychological fit enough to tolerate the treatment.

- Consideration should be given to entering suitable Dukes C and high risk Dukes B patients into the SCOT trial.

- Colorectal MDT should aim for appropriate patients to commence adjuvant chemotherapy within six weeks of surgery and no later than three months post op.
• **Dukes’ stage low risk B and Dukes’ stage A lesions** do not require adjuvant chemotherapy.

• The administration of chemotherapy should be supervised by a clinical or medical oncologist supported by chemotherapy nurse specialists and expert pharmacy and laboratory services.

• Provision should be made for expert advice to be made available to the primary care team and the patient on an urgent basis in the event of complications occurring.

10.2 **Dukes’ C Colon** – *For details of the regimen see chemotherapy handbook*

- XELOX (oxaliplatin and capecitabine) 8 courses over 24 weeks.
- FOLFOX (oxaliplatin and 5FU) 12 courses over 24 weeks.
- Capecitabine 8 courses over 24 weeks.
- Mayo 5FU regimen 6 courses over 24 weeks.
- Modified Mayo. Weekly 5FU 24 weeks.

10.3 **Dukes’ B Colon and Rectal Carcinoma** – *For details of the regimen see chemotherapy handbook*

- Capecitabine 8 courses over 24 weeks.
- Mayo 5FU regimen 6 courses over 24 weeks.
- Modified Mayo. Weekly 5FU 24 weeks.

10.4 **Metastatic Disease**

Patients presenting with liver only metastases/recurrence should be discussed with the local hepatobiliary unit (*see Network HPB clinical guidelines and referral pathway at appendix 16.9*), as superior survival results are seen if liver metastases are resected (5 year survival rates of 25-35% cf approaching 0% for palliative chemotherapy).

Patients presenting with lung only metastases/recurrence should be discussed with the local cardiothoracic unit, as superior survival results are seen if lung metastases are resected (5 year survival rates of 25-35% cf approaching 0% for palliative chemotherapy).

Similarly patients with limited liver and lung metastases may have both surgically removed.

Patients with isolated metastases to any other organ (e.g. Ovary, Spleen, Brain etc.) should also be considered for surgical resection. All patients with metastatic disease who may be suitable for treatment with Cetuximab as per NICE guidelines should have k-ras test.
10.5 Palliative Chemotherapy

NICE guidance.
TA176 August 2009. Cetuximab given with other drugs called 5FU, folinic acid and oxaliplatin is recommended as first line treatment for people with metastatic colorectal cancer only when surgery to remove the cancer in the colon or rectum has been carried out or is possible and the metastases are only in the liver and cannot be surgically removed.

TA118 January 2007. Bevacizumab in combination with 5FU and folinic acid is not recommended for people with metastatic colorectal cancer who have not been treated before. Cetuximab in combination with irinotecan is not recommended for patients who have had previous treatment for the cancer that also included irinotecan.

TA93 August 2005. Irinotecan and oxaliplatin are recommended as possible options for people with advanced colorectal cancer if they are used in these ways. Irinotecan is given with 5FU and folinic acid to people who have not had chemotherapy for advanced colorectal cancer or on its own to people who have already had chemotherapy. Oxaliplatin is given with 5FU and folinic acid. Ralitrexed is not recommended.

TA 61. NICE has recommended that capecitabine or tegafur with uracil and oral folinic acid should be among the first option for a person with metastatic colorectal cancer (NOTE largely superseded by later guidance recommending combination chemotherapy)

NECDAG Guidance November 2009. Cetuximab can be used as third line treatment of metastatic colorectal cancer (MCRC) for patients with metastatic colorectal cancer who has failed failed treatment with irinotecan and /or oxaliplatin-based chemotherapy as a single agent in EGFR-expressing, K-RAS wild-type tumours for patients with a life expectancy of at least 8 weeks.

North East Cancer Drug fund. 2011
Bevacuzimab (avastin) is currently funded to be used with first line palliative chemotherapy for metastatic colorectal cancer or with second line chemotherapy if the patient has not received bevacuzimab first line. In North Yorkshire bevacuzimab is only funded second line. Bevacuzimab can only be used if an application for funding has been made through the NECDAG website. Bevacuzimab is given until progressive disease or significant toxicity occurs.

10.6 First Line Chemotherapy (inoperable liver metastases, K RAS wild type see NICE guidance TA176) – For details of the regimen see chemotherapy handbook

- FOLFOX plus cetuximab (oxaliplatin and 5FU)

10.7 First Line Chemotherapy – For details of the regimen see chemotherapy handbook

Commonly used options:

- XELOX (oxaliplatin and capecitabine) 4 courses then reassess.
- FOLFOX (oxaliplatin and 5FU) 6 courses then reassess
- Capecitabine 4 courses then reassess
FOLFIRI (irinotecan and 5FU) 6 courses then reassess
Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriate.

**Less common options:**

- Tegafur and uracil.
- Weekly bolus 5FU (weekly Mayo regimen).
- Infusional 5FU (De gramont or modified De gramont regimen)
- Continuous 5FU (Lokich regimen)

Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriate.

### 10.8 Second Line chemotherapy – *For details of the regimen see chemotherapy handbook*

Treatment will depend on what previous chemotherapy the patient has received.

- Patients who have received FOLFOX or XELOX chemotherapy.
  - Irinotecan 3 weekly 4 courses then reassess.
  - Irinotecan weekly 12 weeks then reassess.
  - FOLFIRI (Irinotecan and 5FU) 6 courses then reassess.
  - CAPIRI (Irinotecan and capecitabine) 4 courses then reassess.

- Patients receiving an irinotecan regimen would be suitable for an oxaliplatin containing regimen.
  - XELOX (oxaliplatin and capecitabine) 4 courses then reassess.
  - FOLFOX (oxaliplatin and 5FU) 6 courses then reassess.

- Patients who have not received oxaliplatin or irinotecan could receive either drug as described above. Treatment is for 12 weeks and then is reassessed. If the oxaliplatin regimen fails they could then potentially be treated with an irinotecan containing regimen or vice versa. Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriate the patient has not received bevacuzimab first line.

### 10.9 Third line treatment – *For details of the regimen see chemotherapy handbook*

- Cetuximab (for patients with wild type k ras)
- Mitomycin and capecitabine or 5FU

**NOTE**

Cetuximab, panitumumab or bevacizumab are not funded except for the above indications. Use within the top up payment scheme or for private patients outside these indications is possible. Use within the drugs licensed indications is recommended.

**Enrolment in clinical trials**

A number of clinical trials for various stages of colorectal cancer are run through the cancer units/centre, and it is encouraged that patients be considered for these where appropriate.
11. **PALLIATIVE CARE**

- Both chemotherapy and radiotherapy are effective in relieving some of the symptoms of advanced colorectal cancer and all patients should have access to the appropriate specialists.
- Colonic stenting should be considered as a possible treatment to prevent luminal obstruction in the presence of recurrent disease.
- Because the majority of patients prefer to remain at home, the GP and the home care team have a crucial role in palliative care. These professions should have ready access to a palliative care specialist for advice, information and education.

**The following recommendations are made:**

- Specialist palliative care should be available for all patients within the hospital and the community on a 24-hour basis.
- Clear mechanisms should exist for communication between primary care, the community and those hospital services involved in the provision of palliative care.
- Patients should be helped to remain in the place they prefer and should whenever possible be allowed to choose where they die.

Network wide guidelines exist for the management of certain core symptoms and situations in palliative care. These have been incorporated into a small A5 sized booklet and are distributed across the network. They are also available on the North of England cancer network website where other guidelines and links will be available at: [http://www.necn.nhs.uk](http://www.necn.nhs.uk)

We also feel it can be helpful to give an explanation of some of the different terms often encountered when ‘palliative care’ is discussed.

**Supportive Care**

- “Umbrella” term for all services which help patient and family to cope with the condition and its treatment – from pre-diagnosis, through diagnosis and treatment, to cure, continuing illness or death and into bereavement
- Aims to help patient maximise benefits of treatment and to live as well as possible with the effects of the disease
- Should be given equal priority alongside diagnosis and treatment.

Supportive care includes:

- Self help and support
- User involvement
- Information giving
- Psychological support
- Symptom control
- Social support
- Rehabilitation
- Complementary therapies
- Spiritual support
- End of life and bereavement care
Palliative Care

- part of, and embraces many elements of, supportive care.

Defined (NICE 2004) thus: “the active holistic care of patients with advanced progressive illness. Management of pain and other symptoms and provision of psychological, social and spiritual support is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families. Many aspects of palliative care are also applicable earlier in the course of the illness in conjunction with other treatments”.

Key features of palliative care:
- Affirm life and regard dying as a normal process.
- Provide relief from pain and other distressing symptoms.
- Integrate the psychological and spiritual aspects of patient care.
- Offer a support system to help patients live as actively as possible until death.
- Offer a support system to help the family cope during the patient’s illness and in their own bereavement.

General Palliative Care is that care delivered by health professionals whose main role is not working with palliative care patients but who necessarily come across these patients in their work. This care is therefore delivered by a majority of healthcare professionals.

Specialist Palliative Care is delivered by professionals for whom the majority of their working role is in managing patients with palliative care needs. These professionals would therefore manage, or be advising in the care of, patients and their families whose needs are more complex, challenging, time consuming and refractory to usual input, and where this demand exceeds that which can reasonably be expected to be delivered by a professional whose main role is in another discipline.

End of Life Care

- an approach that enables the supportive and palliative care needs of both patient and family to be identified and met throughout the last phase of life and into bereavement.

Key features of end of life care:
- Anticipation and management of deterioration in the patient’s condition
- Advance care planning in accordance with patient preferences
- Patient choice about place of care and death
- Effective co-ordination of care across all teams and providers of care (in statutory, voluntary and independent sectors) who are involved in the care of patient and family

Care of the Dying

- Care of the patient and family in the last hours and days of life.
- Incorporates four key domains of care, physical, psychological, social and spiritual
- Supports the family through this phase and into bereavement.

References
National Council for Palliative Care Palliative Care Explained (2007)
12. PATIENT INFORMATION AND COMMUNICATION

Once a patient is diagnosed with colorectal cancer, the Consultant and the Colorectal Nurse Specialist will discuss the treatment plan with the patient, family and/or carer. This discussion will take place in an appropriate environment ensuring privacy is maintained at all times. The opportunity to ask any questions or discuss any fears or concerns by the patient, family and/or carer regarding the treatment plan is available at this time. All staff working with colorectal patients are aware of the importance of communication with each other and the patient.

Patients will have access to a key worker who will act as a point of contact and who will have access to the MDT. This key worker will ideally be one of the nurse specialists who will be experienced in communication skills and who should have successfully completed a programme of study in their specialist area of nursing practice.

It is acknowledged that the patient may think of further questions after leaving hospital therefore the patient is given the following information.

- Contact numbers of the Colorectal Specialist Nurses for any queries or help (queries for other members of the MDT will be co-ordinated by the Colorectal Specialist Nurse)
- Specific written information to include:
  - How to contact us?
  - The Macmillan Booklet – Understanding cancer of the colon and rectum
  - Beating Bowel Cancer – Just diagnosed? we’re here to help pack
  - How will it affect me and my life Ileostomy / Colostomy (as appropriate)
  - Stages of bowel cancer (Dukes)
  - More about bowel cancer staging (TNM)
  - www.beatingbowelcancer.org
  - www.cancerresearchuk.org
  - www.macmillan.org.uk

Patients will also be given relevant local hospital written information and signposted to their local Macmillan Information and Support Service.

Written information will be given to patients in a timely manner and in accordance with their individual need.

It is recognised that information given to cancer patients, carers and family about their illness and treatment can help them gain some control over their lives, and hopefully enable them to make informed choices.

Any requests for significant news will be discussed in an honest and open environment. Other members of the MDT will be consulted as and when appropriate.
Once a patient has a diagnosis of cancer the designated consultant's secretary or Colorectal Nurse Specialist will inform the GP of the diagnosis by the next working day. A letter is produced and faxed to the GP’s surgery. The following information will be included:

- GP Name
- Patient's name and address
- Diagnosis
- Patient awareness of diagnosis
- Treatment plan
- Proposed date of surgery (if appropriate)
- Comments

The fax has been produced from the information contained within the Caldicott Report ‘Patient Confidentiality’ as follows

- The fax machine is kept in manned areas, which is locked when not in use
- Visitors are not allowed to roam freely around the office where there are fax machines used to transmit and receive patient identifiable information
- All incoming faxes are treated as ‘Private and Confidential' and are given to the recipient as soon as possible in a sealed envelope
- The sender phones the recipient to inform them of the outgoing fax
- Confirmation of receipt is always requested
- The Trust’s standard fax cover sheet is always used

The Cancer Services Manager or CNS completes an audit of timeliness annually.
13. CLINICAL TRIALS

The Cancer Reform Strategy states that “in order to ensure that we build for the future of cancer services there is a need for increased support for research.” This statement underpins the need for promoting research to fill the gaps in the evidence and spreading good practice.

The NECN Research Networks will work with the Service Network to promote integration of research into routine practice.

Both NECN Research Networks will be meeting the performance based working proposals for the National Cancer Research Network (NCRN). This includes maintaining overall accrual and improving accrual into randomised controlled studies, (RCT’s) with the aim being to provide as wide reaching a portfolio as possible across the NECN. There is a need to ensure that the Networks portfolios are inclusive of trials for all disease groups and that there is an expansion of pre-malignancy and non-cancer screening trials. Both Networks believe it is important that patients within the NECN have equity of access to trials open.

- New initiatives to strengthen research into prevention of cancer are underway. The Research Networks will work with key stakeholders and the Primary Care Research Networks to ensure that patients in the North East and Cumbria have access to these trials.

- The CRS states that there is funding for screening trials and the Research Networks will support the setting up and coordination of screening trials.

- The NCRN has an important role in identifying potential new therapies and making sure that clinical trials are undertaken in a timely manner. NCRN engages with Industry and NICE with the aim of maximising the impact of NCRN trials on subsequent NHS Practice. There will be further investment over the next 10 years into researching cures and treatments of the future. The Research Networks will ensure they maintain a wide reaching balanced portfolio and promote industry trials.

- Access to high quality information is a prerequisite for patients to be able to participate in decision making about their care and this includes research trials. All staff need to be aware of research portfolios so they can ensure they provide patients with relevant information.

- Reducing inequalities in equity of access to cancer trials.

- Promoting research proposals on cancer in equalities – encouraging more trials which include older people and ensuring that children and young adults are treated at centres where a complete portfolio of relevant trials is supported.
• NCRI will help fund research on data collected by the National Cancer Intelligence network (NCIN), facilitating a more informed analysis of cancer services.

• To ensure research is incorporated in World Class Commissioning for cancer.

• To work more closely with our Patient and Carer Group, particularly in relation to equity of access for patients to clinical trials. We hope they will be able to help us provide a patient's perspective and help support us raise awareness.

The Cancer Reform Strategy supports the need for promoting integration of research into routine practice and the NECN Research Networks are keen to advance this concept.

Cancer Peer Review and Clinical Trials

The Manual of Measures 2008 for Colorectal has a number of measures relating to clinical trials.

Network Board measures for all NSSGs include the requirement for:

• 08-1A-201c A member of the NSSG responsible for ensuring recruitment into clinical trials and other well designed studies is integrated into the function of the NSSG;

For the Network Site Specific group, it is a requirement that:

• 08-1C-111c There is an agreed list of clinical trials and/or studies
• 08-1C-112c There is an agreed NSSG remedial action plan for recruitment into clinical trials.

For the Multidisciplinary Team:

• 08-2C-102 Provide the names of core team members for named roles in the team.

The core team specific to colorectal should include:

• A member of the core team nominated as the person responsible for ensuring recruitment into clinical trials and other well designed studies is integrated into the function of the MDT.
• 08-2C-131 There is an agreed NSSG/MDT list of approved trials
• 08-2C-132 There is MDT/NSSG remedial action from the MDT’s recruitment results

An agreed list of clinical trials for the Network can be found on the following website: www.necn.nhs.uk/research/portfolio-and-recruitment/
14. GENETICS

Introduction
Most bowel cancer occurs by chance. Approximately 2.5-5% is thought to be due to a highly penetrant genetic cause (1, 2), although 30% have a family history. Lynch syndrome has an estimated incidence of 1 in 1500 and is thought to be the most common of the inherited bowel cancer predisposition syndromes. FAP has an incidence of 1 in 8000. MYH associated polyposis is recessively inherited.

Most families in which an inherited predisposition is suspected do not meet the currently accepted criteria for Lynch Syndrome and may be due to other genes as yet unidentified. Alternatively they may be accounted for by gene/environment interaction, polygenic inheritance or chance.

An inherited tendency to bowel cancer can be difficult to diagnose and evidence regarding screening recommendations does not cover all patterns of cancer that may be seen in a family. Current evidence regarding screening comes from a variety of sources but – apart from screening recommendations for those with Lynch Syndrome – are not yet conclusive (3,4,5,6). Guidelines are thus likely to change as more evidence emerges.

Aim / scope
The aim is to outline a risk assessment strategy for families worried about an inherited tendency to bowel cancer including genetic testing and to provide a reasonable surveillance strategy. It is important to emphasise there are other screening strategies described in the literature. This guidance aims to follow current national guidance produced on behalf of the British Society of Gastroenterology and the Association of Coloproctology (Gut 2010 59:666-689).

The scope of this guideline cannot cover all possible permutations of family history, nor can it replace clinical judgement. Family structure can influence the weight attached to any particular diagnosis within a family. In general, the following features are suggestive, but not absolutely diagnostic, of hereditary bowel cancer:

- early age of onset (and at diagnosis)
- right-sided colorectal cancer (i.e. caecal rather than rectal)
- multiple primary colorectal cancers in the same person (synchronous / metachronous tumours)
- multiple colorectal cancers in one family
- colorectal cancer associated with other characteristic tumours in the same individual / family
## The Guideline

### Screening

<table>
<thead>
<tr>
<th>Family Groups</th>
<th>Lifetime risk of colorectal cancer</th>
<th>Screening Procedure</th>
<th>Age at initial screen</th>
<th>Screening procedure and interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAP and variants</td>
<td>High; with no intervention penetrance is ~100%</td>
<td>Genetic testing, flexi sig or colonoscopy alternating OGD</td>
<td>Age 13 re lower bowel</td>
<td>12 monthly – 2 yearly (lower bowel). 1-5 yearly duodenum</td>
</tr>
<tr>
<td>Juvenile polyposis</td>
<td>~1 in 3 – 1 in 10 high</td>
<td>Genetic testing Colonoscopy and upper GI screen. OGD or capsule</td>
<td>Colonoscopy from age ~15 Upper GI from age 25</td>
<td>12 monthly – 2 yearly. Maybe less frequent over age 35 Endoscopy</td>
</tr>
<tr>
<td>Peutz jeghers syndrome</td>
<td>~1 in 5 high</td>
<td>Genetic testing Colonoscopy and upper GI screen. OGD or capsule</td>
<td>Lower GI from age 25 (re cancer) Upper GI from age 25</td>
<td>16 yearly 2 yearly</td>
</tr>
<tr>
<td>Lynch syndrome (3 or more family members with bowel cancer or a Lynch syndrome ca )</td>
<td>In known gene carrier 60-80% high</td>
<td>Colonoscopy and gastroscopy</td>
<td>Colonoscopy from age 25 Gastroscopy from age 50 (in families with case of gastric ca) Or from 5 years younger than youngest affected</td>
<td>18 monthly 2 yearly</td>
</tr>
<tr>
<td>High moderate: 1. as for Lynch but no-one younger than 50 2. 2 affected FDR aged &lt;60</td>
<td>~1 in 6</td>
<td>colonoscopy</td>
<td>50 continuing until 75</td>
<td>5 yearly</td>
</tr>
<tr>
<td>1) 1 FDR &lt;50 with colorectal cancer 2) 2 affected FDR aged 60 or older</td>
<td>~1 in 10</td>
<td>colonoscopy</td>
<td>55</td>
<td>One off colonoscopy at 55. Consider FOBs</td>
</tr>
<tr>
<td>1 affected FDR over 50</td>
<td>1 in 17</td>
<td>Reassurance and any population based screening</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
1. OGD = oesophagoduodenoscopy HNPCC as defined by Amsterdam criteria.
2. The above family groups are a minimum number of affected individuals, risk may rise in the moderate risk groups with more affected relatives.
3. This table is based on national guidance from the Association of Coloproctology of Great Britain and the British Society of Gastroenterologists.
4. There are no specific NICE guidelines although family history is alluded to in NICE guidance re management of bowel cancer.
polyposis | monthly-2 yearly.
---|---
Birt Hogg Dube syndrome | Will require case by case discussion

### Surgery

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Surgical intervention</th>
<th>Age to consider</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAP and variants</td>
<td>Colectomy</td>
<td>Typically 16-25</td>
<td>May be different in Attenuated</td>
</tr>
<tr>
<td>MYH associated polyposis</td>
<td>Consider colectomy</td>
<td></td>
<td>Depends on ployp load</td>
</tr>
<tr>
<td>Juvenile polyposis</td>
<td>Consider colectomy</td>
<td></td>
<td>Depends on phenotype</td>
</tr>
<tr>
<td>Lynch syndrome</td>
<td></td>
<td></td>
<td>Need for prophylactic surgery depends on clinical factors; no. of polyps, ease of screening</td>
</tr>
</tbody>
</table>

### Screening and surveillance for colorectal cancer in inflammatory bowel disease

Inflammatory bowel disease can be familial however it is rare to see clear autosomal dominant inheritance.

All patients should have colonoscopy approximately 10 years after onset of IBD symptoms

Surveillance should be performed (if possible) during disease remission

Screening interval should be 1-5 yearly:

5 yearly – Lower risk:
1. extensive colitis with no active disease colonoscopically or histologically OR
2. left sided colitis OR
3. Crohns of <50% colon

16 yearly – Intermediate risk:
1. extensive colitis with mild active endoscopic /histological inflammation OR
2. post-inflammatory polyps OR
3. family hx of CRC in 1st degree relatives aged> 50

1 yearly – High risk:
1. Extensive colitis with moderate/severe active endoscopic/histological Inflammation OR
2. stricture in past 5 years OR
3. dysplasia in past 5 years OR
4. primary sclerosing cholangitis (PSC)/ transplant for PSC OR
5. family history of CRC in 1st degree relative aged <50

**Amsterdam criteria** [source: Vasen HFA et al Dis Colon Rectum 1991;34:424-5]
- three or more relatives with histologically proven colorectal cancer, FAP excluded
- one of the three affected relatives is first degree relative of the other two,
- cases extend over two or more generations, and
- one or more cases are diagnosed before 50 years of age.

**Modified Amsterdam criteria** [source: Benatti P et al Int J Cancer 1993;54:371-377]
- small families, which cannot be expanded further, can be considered as HNPCC even if only 2 CRCs in first degree relatives; CRC must involve at least 2 generations and one or more CRC cases must be diagnosed below 55, or
- in families with 2 first degree relatives affected by CRC, the presence of a third relative with an unusual early onset neoplasm or endometrial cancer is sufficient.

Amsterdam II criteria [source: Vasen HFA et al Gastroenterology 1999; 116:1453-1456]

- relatives with an HNPCC associated tumour (CRC, endometrial, small bowel, ureter or renal pelvis)
- one of the three affected relatives is first degree relative of the other two,
- cases extend over two or more generations, and
- one or more cases are diagnosed before 50 years of age.

Disease surveillance: other Lynch syndrome tumours

None has been proven.

1. Endometrium and ovary: options

- Watchful waiting. If a woman has a regular menstrual cycle then endometrial cancer should present early by abnormal bleeding. This requires prompt action and in most cases is treatable (6). Ensure that the woman is aware what constitutes significant symptoms
- Annual transvaginal U/S + CA125 from 35: the efficacy of surveillance in this group is unknown. Women can be recruited in the UKFOCSS study.
- + annual endometrial aspirate from 30 until menopause; ultrasound assessment of endometrial thickness after menopause, with biopsy if necessary: unproven
- Prophylactic surgery after family completed, total hysterectomy and bilateral salpingo-oophorectomy. This will remove the risk of endometrial ca and reduce the risk of ovarian ca considerably.

2. Stomach

- eradicate \( H. pylori \)
- See table.

3. Urinary Tract

- Urine cytology and or urine based markers of malignancy may be useful, unproven (8)

4. Other cancers

- Exercise clinical judgement. It may be prudent to consider carefully the use of x-rays, as radiation may have more adverse effects in a person with a mutation in a mismatch repair gene although evidence either way is scant (9).
**Genetic testing**
The Genetics Department have a guideline regarding genetic testing and will organise this as appropriate

1. Microsatellite instability (MSI) studies and umbilical ochemistry
2. Mutation screening of Lynch syndrome genes (mismatch repair genes)
3. MYH testing
4. APC testing
5. STK11 testing; possible in Peutz jeghers families
6. SMAD4: possible in Juvenile Polyposis families
7. FLCN: possible in Birt Hogg Dube families

**References**
1. Cancer Risk associated with germline DNA mismatch repair gene mutations M G Dunlop, S F Farrington, A D Carrothers et al Hum mol gen 1997 vol 6, No.1 105-110 Category llb
2. Recommendations for follow-up care of Individuals with an inherited predisposition to cancer W Burke, G Petersen, P Lynch et al JAMA Mar 19 1997 vol 277 no.11 915-919 Category IV
5. Guidance on large bowel surveillance for people with two first degree relatives with colorectal cancer or one first degree relative diagnosed with colorectal cancer under 45 years M G Dunlop Gut 2002; 51 (suppl V);v17-v20. Category IV
8. Urine based markers of urological malignancy B R Konety, R H Getzenburg Investigative Urology
10. Pathogenesis and clinical management of hereditary non-polyposis colon cancer D A Lawes, S B Sengupta, P B Boulos British Journal of Surgery 89(11) 2002 1357-1369. This paper is a review, it obtains its evidence from categories 1b, llb, III and IV


<table>
<thead>
<tr>
<th>Categories of evidence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia</td>
<td>evidence obtained from meta-analysis of randomised controlled trials</td>
</tr>
<tr>
<td>Ib</td>
<td>evidence obtained from at least one randomised controlled trial</td>
</tr>
<tr>
<td>IIa</td>
<td>evidence obtained from at least one well-designed controlled study without randomisation</td>
</tr>
<tr>
<td>IIb</td>
<td>evidence obtained from at least one other type of well-designed quasi-experimental study</td>
</tr>
<tr>
<td>III</td>
<td>evidence obtained from a well-designed non-experimental descriptive study, such as comparative studies, correlation studies and case studies</td>
</tr>
<tr>
<td>IV</td>
<td>evidence obtained from expert committee reports or opinions or clinical experiences of respected authorities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grading of recommendations</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>evidence categories Ia and Ib</td>
</tr>
<tr>
<td>B</td>
<td>evidence categories IIa, IIb and III</td>
</tr>
<tr>
<td>C</td>
<td>evidence category IV</td>
</tr>
</tbody>
</table>
Appendix 1: heterozygote risks (HNPCC)

16. characteristics
- early age at diagnosis (40-50. Population 60-70)
- preponderance of right-sided tumours (60%. Population 15%)
- multiple primaries (25% Population 5%)

16. genes
- $MSH2$ ~50%
- $MLH1$ 30-40%
- $MSH1$ minority (No clinical testing)
- $MLH2$ minority (No clinical testing)
- $MSH6$ associated with endometrial cancer
- PMS1
- PMS2

16. cumulative lifetime tumour incidence in heterozygotes (ubmuco):
- CRC 24-52% females to age 70
  28-75% males to 70
- Endometrial 27-71%
- Gastric 2-13%
- Biliary 2%
- UT 1-12%
- Ovary 3-13%
- Brain + small bowel 1-4%


Appendix 2: Micro Satellite Instability (MSI)

- A2.1 revised Bethesda criteria for MSI [Umar et al JNCI 2004;96:261-8]
- CRC diagnosed less than 50 years of age
- presence of synchronous, metachronous colorectal or other HNPCC-associated tumours, regardless of age
- CRC with MSI-H histology* in a patient less than 60 years of age
- CRC diagnosed in one or more fdr with an HNPCC-related tumour, with one of the cancers diagnosed below 50
- CRC diagnosed in 2 or more fdr or sdr with HNPCC-related cancer, regardless of age

* presence of tumour infiltrating lymphocytes, Crohn’s-like lymphocytic reaction, mucinous/signet-ring differentiation or medullary growth pattern

A2.2 old Bethesda criteria for MSI [Rodriguez-Bigas et al. JNCI 1997; 89:1758-62]
- Individuals with cancer in families fulfilling Amsterdam criteria
- Individuals with 2 HNPCC-related cancers, including synchronous and metachronous CRCs or associated extracolonic cancers
- Individuals with CRC and a first degree relative with CRC and/or HNPCC related extracolonic cancer and/or colorectal adenoma; one of the cancers diagnosed <45 and the adenoma diagnosed <45
- Individuals with CRC or endometrial carcinoma diagnosed <45
- Individuals with right-sided CRC with an undifferentiated pattern on histopathology (solid/cribriform) diagnosed at <45
- Individuals with signet ring cell CRC diagnosed <45
- Individuals with adenomas diagnosed < 45

**A2.2 Practical considerations**

- 12-16% of sporadic bowel tumours are MSI positive
- almost all HNPCC tumours are MSI positive
- therefore, if in doubt, look at more than one tumour in family

**Appendix 3: colorectal adenomas**

**A3.1 Pathology: significant features**

- large adenomata (>5mm)
- tubulovillous histology
- presence of dysplasia
- distributed throughout colon (c.f. local distribution which suggests a ‘field defect’)
- multiple *metaplastic* polyps

**A3.2 Age and number of adenomata**

- 1 adenoma > 50 is not significant
- 1 adenoma < 50 is significant
- >1 adenoma at any age is significant
- up to 100 polyps suggests either attenuated FAP or *MYH-associated polyposis* (MAP) depending on
- pedigree structure

- 2% of children have a solitary polyp

- 34% of adults have a solitary polyp by 6th decade
- 75% of adults have a solitary polyp over the age of 75

**Appendix 4 Codes**

*HNPCC*

If gene known use gene code:

- MLH1 120536
- MSH2 609309
- MSH6 600678

Amsterdam criteria positive 700113
Amsterdam criteria (modified) 700123
Appendix 5

Studies

1. POET study
Use of mirena coil as prevention for endometrial cancer. Recruitment is via Gateshead Gynae Oncology Department

2. CORGI study
Study of bowel cancer not due to known genes. Currently no PI for this study so shouldn’t be recruiting until this is sorted out

16. THE NATIONAL BOWEL CANCER AUDIT

The National Bowel Cancer Audit is a high-profile, collaborative, national clinical audit for bowel cancer, including colon and rectal cancer. It aims to improve the quality of care and survival of patients with bowel cancer, and meets the requirements as set out in the NHS cancer plan, NICE guidelines and the report of the Bristol Royal Infirmary inquiry. We want to help make sure that people with bowel cancer receive the best care possible. The more we know about the prevention, diagnosis, treatment and care of this disease and the outcomes, the more can be done to improve things. The National Bowel Cancer Audit is designed to provide this vital information.

Information in the audit includes:

- audit participation by NHS Trust and data completeness for key fields
- measures about the process of care given to patients
- information about care outcomes and treatment

The audit includes all NHS Trusts in England and Health Boards in Wales. In addition, two trusts from Northern Ireland, two hospitals from the Republic of Ireland and data from three Health Boards in Scotland have reported patients to the audit.

All participating trusts submit their data via the Open Exeter system, as described in our getting started guide. The Welsh data is submitted directly from the Cancer Network Information System Cymru (CANISC) to the Open Exeter system. Data from Scotland,
Northern Ireland and the Republic of Ireland is sent to the Health and Social Care Information Centre, via secure file transfer, for inclusion in the annual report.

The audit is commissioned by the Healthcare Quality Improvement Partnership and delivered jointly by the Health and Social Care Information Centre and the Association of Coloproctology of Great Britain and Ireland (ACPGBI).

The audit reports annually in July each year and recommendations will be incorporated into network guidelines where appropriate.
16. APPENDICES

16.1 NATIONAL GUIDELINES FOR REFERRAL OF PATIENTS WITH SUSPECTED BOWEL CANCER**

“2 WEEK RULE” 14

The 2 week rule applies only for GP suspected cancer and does not apply to other types of urgent referral.

It is recommended that these symptom and sign combinations WHEN OCCURRING FOR THE FIRST TIME should be used to identify patients for urgent referral under the two-week standard if BOWEL cancer is suspected.

<table>
<thead>
<tr>
<th>Symptoms &amp; Sign Combinations</th>
<th>Age Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal bleeding WITHOUT *anal symptoms</td>
<td>Over 60</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation persistent</td>
<td>Over 40</td>
</tr>
<tr>
<td>for 6 weeks with rectal bleeding</td>
<td></td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation persistent</td>
<td>Over 60</td>
</tr>
<tr>
<td>for 6 weeks without rectal bleeding</td>
<td></td>
</tr>
<tr>
<td>Iron deficiency anaemia without an obvious cause (Hb&lt;110g/l in men or Hb&lt;100g/l in postmenopausal women)</td>
<td></td>
</tr>
<tr>
<td>A definite palpable right-sided abdominal mass</td>
<td>All ages</td>
</tr>
<tr>
<td>A definite palpable rectal (Intra-luminal, not pelvic) tumour</td>
<td>All ages</td>
</tr>
</tbody>
</table>

**NB:** Patients with the following symptoms and no abdominal or rectal mass are at very low risk of cancer:

- Rectal bleeding with anal symptoms*
- Change in bowel habit to decreased frequency of defecation and harder stools.
- Abdominal pain without a clear evidence of intestinal obstruction.

* Anal symptoms include soreness, discomfort, itching, lumps and prolapse as well as pain.
16.2 REFERENCES


16.3 ANAL CANCER GUIDELINES

Introduction
The document is intended to provide a summary of the key points in the management of anal cancer and the way in which the new Anal Cancer MDT’s will facilitate this process.

The treatment of patients with anal cancer can be supervised by surgeons and oncologists in the base hospital but all cases should be referred and discussed at one of the Anal MDT’s using the published pathway and agreed referral proforma. Patients requiring salvage surgery such as AP resection or inguinal lymph node dissection should be referred to the Anal MDT for surgery.

<table>
<thead>
<tr>
<th>Location of Anal MDT</th>
<th>Surgeons</th>
<th>Clinical Oncologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Cook University Hospital</td>
<td>Mr D Aitken</td>
<td>Dr D Wilson</td>
</tr>
<tr>
<td></td>
<td>Mr M Jha</td>
<td>Dr H VanderVoet</td>
</tr>
<tr>
<td>Royal Victoria Infirmary, Newcastle</td>
<td>Mr B Griffiths</td>
<td>Dr I Pedley</td>
</tr>
<tr>
<td></td>
<td>Mr S Plusa</td>
<td>Dr T Simmons</td>
</tr>
</tbody>
</table>

Incidence and Type
Anal cancer is 20-30 times less common than colorectal cancer. It is usually epidermoid (squamous) in the lower anal canal or at the anal margin or cloacogenic (basaloid) in the anal transition zone at the anorectal junction. Adenocarcinomas, melanomas and sarcomas also occur. It may arise on a background of Anal Intra-epithelial Neoplasia (AIN) and in association with anal warts; conditions linked by their relationship with the human papilloma virus.

Diagnosis
Anal cancers usually present with a combination of pain and fresh rectal bleeding. The main differential diagnosis is an anal fissure and clinicians should have a high index of suspicion. Most patients will be diagnosed by incision biopsy under general anaesthetic. Small perianal margin tumours may be diagnosed by excision biopsy.

Clinical Assessment
The primary should be assessed for invasion of adjacent structures and the possibility of local excision. The inguinal regions should be examined for evidence of lymphadenopathy. A digital image of the primary lesion should be taken where possible.

Staging
Local and distal staging should be performed by CT of thorax, abdomen and pelvis complemented by pelvic MRI. CT & MRI should be performed in the referring unit by agreed protocol. The relevant MDT coordinator will arrange for image transfer to the MDT. Female patients should have a gynaecological assessment and all should be considered for HIV testing.

Suspicious inguinal nodes should be sampled for cytology and excision biopsy may be indicated depending on the radiological and clinical picture.

These initial staging investigations will be carried out at the local diagnostic services and verified by the local MDT. The designated Anal MDT will review the investigations and arrange subsequent investigations if needed.
Pathology
There is currently no minimum data set for anal cancer. Depending on the type of surgical specimen (excision or biopsy) the following data should be recorded:

- histological type and grade of tumour
- evidence of pre-malignant change in surrounding tissue
- relationship to anorectal transition zone
- size of tumour
- depth of invasion
- venous, lymphatic and perineural invasion
- number of lymph nodes examined and positivity
- TNM classification & AJCC stage groupings
- clearance and distance to resection margins

Pathological Staging

### Anal Canal Tumours

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tis</td>
<td>Preinvasive (in situ) cancer</td>
</tr>
<tr>
<td>T0</td>
<td>No evidence of primary tumour</td>
</tr>
<tr>
<td>T1</td>
<td>Tumour occupying not more than 1/3 of the circumference or length of the anal canal and not infiltrating external sphincter</td>
</tr>
<tr>
<td>T2</td>
<td>Tumour occupying more than 1/3 the circumference or length of the anal canal or tumour infiltrating external sphincter</td>
</tr>
<tr>
<td>T3</td>
<td>Tumour with extension to rectum or skin but not to adjacent structures</td>
</tr>
<tr>
<td>T4</td>
<td>Tumour with extension to adjacent structures</td>
</tr>
<tr>
<td>TX</td>
<td>Tumour cannot be assessed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Node Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
<td>No positive regional lymph nodes</td>
</tr>
<tr>
<td>N1</td>
<td>Positive regional lymph nodes</td>
</tr>
<tr>
<td>NX</td>
<td>Cannot assess lymph nodes</td>
</tr>
<tr>
<td>MX</td>
<td>Distant metastasis cannot be assessed</td>
</tr>
<tr>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
<tr>
<td>M1</td>
<td>Distant metastasis</td>
</tr>
</tbody>
</table>

### Anal Margin Tumours

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Tis</td>
<td>Preinvasive (in situ) cancer</td>
</tr>
<tr>
<td>T0</td>
<td>No evidence of primary tumour</td>
</tr>
<tr>
<td>T1</td>
<td>Tumour 2 cm. or less, superficial, or exophytic</td>
</tr>
<tr>
<td>T2</td>
<td>Tumour more than 2 cm. but less than 5 cm. or with minimal dermal infiltration</td>
</tr>
<tr>
<td>T3</td>
<td>Tumour greater than 5 cm or with deep dermal infiltration</td>
</tr>
<tr>
<td>T4</td>
<td>Tumour with extension to muscle or bone</td>
</tr>
<tr>
<td>TX</td>
<td>Tumour cannot be assessed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Node Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
<td>No positive lymph nodes</td>
</tr>
<tr>
<td>N1</td>
<td>Mobile unilateral regional lymph node involvement</td>
</tr>
<tr>
<td>N2</td>
<td>Mobile bilateral regional lymph node involvement</td>
</tr>
<tr>
<td>N3</td>
<td>Fixed regional lymph nodes</td>
</tr>
<tr>
<td>NX</td>
<td>Cannot assess LN</td>
</tr>
<tr>
<td>MX</td>
<td>Distant metastasis cannot be assessed</td>
</tr>
<tr>
<td>M0</td>
<td>No distant metastasis</td>
</tr>
</tbody>
</table>
AJCC Stage Groupings
Stage 0  Tis N0 M0
Stage I  T1 N0 M0
Stage II  T2 N0 M0, T3 N0 M0
Stage IIIA  T1 N1 M0, T2 N1 M0, T3 N1 M0, T4 N0 M0
Stage IIIB  T4 N1 M0, Any T N2 M0, Any T N3 M0
Stage IV  Any T any N M1

Treatment

Surgery
Small tumours of the perianal skin or anal margin not involving the anal sphincter may be treated with local resection. If local excision can be performed but margins are not adequate or if there is risk of regional or distant spread then chemoradiotherapy is indicated. Most tumours will require chemoradiotherapy. Some patients will need a defunctioning stoma for symptom control during treatment.

Radical resection is reserved for residual or recurrent cancer in the anal canal after non-operative therapy and for radionecrosis. Resectional surgery and lymph node dissection should be performed by members of the Anal MDT. Surgery in an irradiated field will often require a combined approach from colorectal, urological, gynaecological and plastic surgeons.

Chemo/radiotherapy
The standard treatment for patients with squamous cell anal carcinoma is a combination of radiotherapy, 5FU and Mitomycin C.

All patients will be treated with a two-phase technique where the first phase consists of two large parallel portals. Phase II should be planned at the same time as Phase I and patients are to be treated prone throughout both phases of radiotherapy with a full bladder. All palpable disease on the anal margin and all palpable lymph nodes should be marked with wire for the purposes of simulation. Bolus treatment to the perianal skin for tumours that extend onto the anal margin and anal canal tumours that extend to within 2cm of the anal verge should be used.

Patients will be treated by the designated clinical oncologists and planned at the Northern Centre for Cancer Treatment, Carlisle Cancer Centre or James Cook University Hospital Cancer Centre.

Chemotherapy
It is recommended that the first fraction of radiotherapy should be given after the commencement of the intravenous infusion of chemotherapy. The standard chemotherapy regimen is 5FU 1000mg per m2 per day – days 1 to 4 and 29 to 32 by continuous 24 hour intravenous infusion and Mitomycin C 12mg per m2 by intravenous bolus day 1 only (maximum single dose of 20mg). All patients should be given antiemetic therapy according to network guidelines and prophylactic antibiotics (e.g. ciprofloxacin 250mg twice daily) should be considered during chemo/radiotherapy. Full blood count and biochemistry should be performed prior to commencement of chemo/radiotherapy and repeated before second course of chemotherapy. Full blood count should be monitored weekly during the combined modality treatment period and patients reviewed weekly by a member of the team.
Follow-up
Follow-up should be the shared responsibility of the surgical team and the oncology department and may be performed in the referring Trust. An examination under anaesthetic 3 months after chemoradiotherapy will sometimes be indicated but routine scar biopsy is not necessary and may result in non-healing wounds.

Patients should be seen in outpatients every three months for 2 years then 6 monthly for five years. CT scans of thorax, abdomen and pelvis should be performed at 12 and 24 months.

Digital images of suspicious lesions should be taken.

Palliative Treatment of Recurrence
There is no standard chemotherapy for patients with metastatic disease. Palliation of symptoms from the primary lesion is of major importance. The palliative and primary care teams should be involved at an early stage.
16.3.1 ANAL CANCER PATHWAY

16.3.1 Anal Cancer Pathway

Point of diagnosis in local MDT

Within 24 hrs

Fax/email sub regional MDT co-ordinator

1-6 days

Sub regional ANAL MDT

On receipt – notify OP to offer patient clinic appointment

Letter to referring consultant and MDT co-ordinator

No letter than day 31

Refer back to local unit for local excision or defunctioning stoma

Treatment

Local surgical FU

Responsibility Anal MDT

Responsibility Colorectal MDT

Patient seen in OP department by Oncologist/Surgeon

No letter than day 62

Treatment

Response YES

Surgery FU

Oncology FU

Response NO

MDT discussion 2nd line Chemo

MDT discussion Salvage Surgery

Any concerns refer back to ANAL MDT

6/12 FU

AR/NECN
March 2012
16.4 EARLY RECTAL CANCER MANAGEMENT GUIDELINES

Introduction
Following the introduction of the NHS bowel cancer screening programme, malignant polyps and early rectal cancers are being detected with increasing frequency. The primary treatment of rectal cancer is through surgery and the long term outcome is related to achieving a complete resection of the tumour with negative resection margins.

Early rectal cancer is where tumour has extended either into the submucosa (T1) or into but not beyond the muscularis propria (T2) and in which there is no evidence of spread into the lymph nodes (NO). T1 tumours are further subdivided in to 3 categories, SM1, SM2 and SM3 depending on the depth of submucosa involvement.

Various studies have shown that chances of lymph node involvement in T1 tumours (especially T1 SM1 and T1 SM2) is low and these can be potentially cured with local excisions only.

Large benign looking polyps can have a focus of cancer and if that is suspected, these should be considered for full thickness excision with good margin.

Referral
Indications for referral include:

i. large and / or recurrent rectal polyps
ii. polyps suspicious for malignancy
iii. small T1 rectal cancer (< 3cm)
iv. T1 or T2 rectal cancer for TREC trial
v. Polyps previously resected by other means with adverse histological features

Patients can be referred to named consultant at Newcastle (Mr P Hainsworth) or North Tees (Mr TS Gill). A copy of patient’s endoscopic findings, biopsy report and MRI (if done) should be forwarded to the named clinician.

If a patient is not suitable for TEMS / TEO then the patient will be returned to the referring clinician.
16.4.1 REFERRAL FOR TEMS / TEO

<table>
<thead>
<tr>
<th>Location of Early Rectal Cancer MDT</th>
<th>Surgeons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeman Hospital, Newcastle</td>
<td>Mr P Hainsworth</td>
</tr>
<tr>
<td>University Hospital of North Tees</td>
<td>Mr TS Gill</td>
</tr>
<tr>
<td></td>
<td>Mr D Garg</td>
</tr>
<tr>
<td>QE Hospital Gateshead</td>
<td>Mr M Katory</td>
</tr>
</tbody>
</table>

**Follow-up**

After local excision by TEMS / TEO, all patients will be discussed in an early rectal cancer MDT. T1 good prognosis tumours will remain under clinical review. Poor prognosis T1, or tumours with stage > T1, should be considered for resection surgery. These patients can have local recurrence (in lumen or mesorectal) or systemic recurrence.

During follow-up clinical review apart from usual cancer follow-up, these patients should have regular endoscopic examination and MRI of the pelvis. Follow-up should be arranged in the unit which is convenient for the patients.
## 16.5 ENDO-ANAL ULTRASOUND PROVISION

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Hospital</th>
<th>Named personnel</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Sunderland Royal Hospital</td>
<td>Mr G Farook</td>
<td>Consultant Colorectal Surgeon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Patients with possible early rectal cancers are referred to Mr Hainsworth at FRH who carries out the investigation</td>
<td>Consultant Colorectal Surgeon</td>
</tr>
<tr>
<td>County Durham &amp; Darlington NHS Foundation Trust</td>
<td>University Hospital North Durham Darlington Memorial Hospital</td>
<td>Miss S E Green</td>
<td>Consultant Surgeon</td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Queen Elizabeth Hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newcastle upon Tyne Hospitals NHS Foundation Trust</td>
<td></td>
<td>Mr P Hainsworth</td>
<td>Consultant Colorectal Surgeon</td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust</td>
<td>Wansbeck General Hospital</td>
<td>Patients with possible early rectal cancers are referred to Mr Hainsworth at FRH who carries out the investigation</td>
<td>Consultant Colorectal Surgeon</td>
</tr>
<tr>
<td></td>
<td>North Tyneside General Hospital</td>
<td>Mr B J Slater</td>
<td>Consultant Surgeon</td>
</tr>
<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td></td>
<td>Patients with possible early rectal cancers are referred to Mr Hainsworth at FRH who carries out the investigation.</td>
<td>Consultant Colorectal Surgeon</td>
</tr>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>South Tyneside General Hospital</td>
<td>Very small numbers requiring this procedure so when needed patient referred to Newcastle.</td>
<td></td>
</tr>
<tr>
<td>North Tees and Hartlepool NHS Trust</td>
<td>University Hospital of North Tees</td>
<td>Dr Matthew Trewhella Mr D Garg</td>
<td>Consultant Radiologist Consultant Surgeon</td>
</tr>
<tr>
<td>South Tees Hospitals NHS Trust</td>
<td>No service</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
North of England Cancer Network

Colorectal NSSG

Stenting Policy

July 2013

Colorectal Stents
Colorectal cancer is the second commonest cancer in the United Kingdom and affects 35,000 individuals each year in England and Wales. The age-adjusted mortality from colorectal cancer remains close to 50% despite recent improvements in diagnosis, surgery and adjuvant therapy. Up to 30% of colorectal cancers present as an
emergency with large bowel obstruction. Patients with colorectal cancer are largely an elderly population with significant co-morbidities.

The non-surgical management of large bowel obstruction has moved on in recent times. The use of self-expanding metal stents (SEMS) in the relief of malignant large bowel obstruction is supported by the Network Site Specific Group (NSSG) as an option for

- definitive palliation for inoperable malignant colorectal obstruction
- relieving acute obstruction in otherwise surgically operable patients who will then subsequently undergo elective surgery

Colonic stents may be deployed

- purely radiologically under fluoroscopic guidance
- using a combined endoscopic and radiological technique

Following the introduction of a guide wire beyond the obstruction the stent is inserted either through the endoscope or after removal of the endoscope, over the wire. For left-sided lesions the therapeutic gastroscopy is most often used; for right-sided lesions a therapeutic colonoscope is required. Stent placement is considered unsuitable for low rectal lesions where stents may dislodge or also cause distressing local symptoms.

The practice of colorectal stenting will be limited to named personnel agreed as being competent in this practice by the NSSG. The NSSG constitution will list the current personnel who have been agreed as competent for colorectal stenting. The individual MDT’s will have agreed to the list of named personnel judged competent for colorectal stenting. All operators will be able to demonstrate that they maintain their expertise by such evidence as for example continuing professional development activity or an audit of their procedures.

**Colorectal stenting operators**

Those undertaking colonic stenting should:

- have experience in procedures involving manipulation of guide-wires and catheters under fluoroscopic screening (e.g. ERCP) and be performing such procedures regularly
- have experience in placement of self-expanding metal stents in the gastrointestinal tract (oesophageal, biliary, enteral or colonic) and be performing such procedures regularly
- have prior experience of at least 2 colonic stent insertions
- be willing to submit regular audit data on stent outcome (e.g. technical success rate, perforation rate, displacement rate, functional outcome)
- be able to demonstrate that they can satisfy the following performance indicators:
  - have a
    - technical success rate > 85%
    - perforation rate < 5%
    - procedural mortality < 1 %

**NB:** Colonic stenting in the emergency situation (as a bridge to surgery) is more challenging than elective palliative stent placement. It is desirable for clinicians undertaking such cases to have more experience in colonic stent placement than outlined above.
## Colorectal Stenting Personnel

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Endoscopist</th>
<th>Designation</th>
<th>Stent deployer</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Mr J Corson, Mr G Farook, Mr S Holtham, Mr G O’Dair, Dr J Painter</td>
<td>Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Gastroenterologist</td>
<td>Dr R Marsh</td>
<td>Consultant Radiologist</td>
</tr>
<tr>
<td>County Durham &amp; Darlington NHS Foundation Trust</td>
<td>Miss S E Green, Mr J Cundall, Miss K Grant, Miss S Noble</td>
<td>Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon</td>
<td>Mr Ian Minta, Mr Stuart Marsden</td>
<td>Consultant Radiologist, Consultant Radiologist</td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Mr M Kotary, Mr M Eltringham</td>
<td>Consultant Colorectal Surgeon, Consultant Colorectal Surgeon</td>
<td>Dr G Timmons, Dr Nice</td>
<td>Consultant Radiologist, Consultant Radiologist</td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust</td>
<td>Mumtaz Hayat, Sarah Mills, Mike Bradburn</td>
<td>Consultant Gastroenterologist, Consultant Surgeon, Consultant Surgeon</td>
<td>Mumtaz Hayat, Sarah Mills, Mike Bradburn</td>
<td>Consultant Gastroenterologist</td>
</tr>
<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td>Mr F Hinson, Mr E Jehangir, Mr H Babu</td>
<td>Consultant Surgeon, Consultant Surgeon, Locum Consultant Surgeon</td>
<td>Mr F Hinson, Mr E Jehangir, Mr H Babu</td>
<td>Consultant Surgeon, Consultant Surgeon, Locum Consultant Surgeon</td>
</tr>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>Mr V Joypaul, Mr R Fenchel, Mr K Wynne, Mr A Krishna, Mr S Subramonia</td>
<td>Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Colorectal Surgeon</td>
<td>Dr L Cope, Dr O Shulte</td>
<td>Consultant Radiologist, Consultant Radiologist</td>
</tr>
<tr>
<td>North Tees and Hartlepool NHS Trust</td>
<td>T Gill, D Garg, J Hancock, D Dwarkanath</td>
<td>Consultant Colorectal Surgeon, Consultant Colorectal Surgeon, Consultant Gastroenterologist, Consultant Gastroenterologist</td>
<td>T Gill, D Garg, J Hancock, D Dwarkanath, J Lattimer</td>
<td>Consultant Radiologist, Consultant Radiologist, Consultant Radiologist, Consultant Radiologist</td>
</tr>
<tr>
<td>South Tees Hospitals NHS Trust</td>
<td>Mr Clarke, Mr Wakefield, Mr Jha, Mr Aitken, Mr Garud, Mr Reddy, Mr Macafee</td>
<td>Consultant Surgeon, Consultant Surgeon, Consultant Surgeon, Consultant Surgeon, Consultant Surgeon, Consultant Surgeon, Consultant Surgeon</td>
<td>Dr Miranda, Dr Fitzgerald, Dr Hartley</td>
<td>Consultant Radiologist, Consultant Radiologist, Consultant Radiologist</td>
</tr>
</tbody>
</table>
16.7 SOURCES OF INFORMATION AND PATIENT SUPPORT GROUPS

**Bowel Cancer Uk**

7, Ricket Street, London SW6 1RU  
Tel 08008403540  
Tel 02073819711

**Macmillan Cancer Support**

89 Albert Embankment, London SE1 7UQ  
Tel 0808 808 0000

**Colostomy Association**

2 London Court, East Street, Reading, Berkshire, RG1 4QL  
Tel 0800 328 4257  
Tel 01189391537

**Beating Bowel Cancer**

Harlequin House, 7 High Street, Teddington, TW11 8EE  
Tel 08450719300  
Tel 08450719301

**Cancer Research**

PO Box, London, WC2A 3PX  
Tel 02072420200  
Tel 08088004040
<table>
<thead>
<tr>
<th>PCT Referral</th>
<th>Hospital Site</th>
<th>Named Surgeons</th>
<th>Nationally Trained</th>
<th>Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunderland</td>
<td>Sunderland Royal Hospital</td>
<td>J Corson</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>*inc Easington</td>
<td></td>
<td>G O’Dair</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S Holtham</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>G Farook</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Co Durham</td>
<td>University Hospital of North Durham</td>
<td>I Bain</td>
<td>✓**</td>
<td></td>
</tr>
<tr>
<td>*Easington split inc in Sunderland pathway</td>
<td></td>
<td>S Green</td>
<td>✓**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>K Grant</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>J Cundall</td>
<td>✓**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S Noblett</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Darlington</td>
<td>Darlington Memorial Hospital</td>
<td>K Gunning</td>
<td>✓**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>T Ramalingam</td>
<td>✓**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>V Shanmugam</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Gateshead</td>
<td>Queen Elizabeth Hospital</td>
<td>M Katory</td>
<td>✓ National Trainer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D Browell</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>M Eltringham</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Newcastle</td>
<td>Freeman Hospital</td>
<td>A F Horgan</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P J Hainsworth</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Royal Victoria Infirmary</td>
<td>J M Hanson</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>H Gallagher</td>
<td>✓</td>
<td></td>
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**Due to completion of recognised training which was available prior to the Laparoscopic Colorectal Cancer National Training Programme**
UNIT PATHWAY FOR SUSPECTED COLORECTAL LIVER METASTASIS

1. **Primary in situ Solitary Liver Met**
2. **Primary in situ Multiple Liver Mets**
3. **Primary Resected (<12 months) Solitary Liver Met**
4. **Primary Resected (<12 months) Multiple Liver Mets**
5. **Primary Resected (>12 months) Solitary Liver Met**
6. **Primary Resected (>12 months) Multiple Liver Mets**

---

**Staging MRI Liver, CT Chest Abdomen and Pelvis (Local Unit)** *(If extrahepatic disease suspected then CT-PET)*

---

**Referral to Central HpB MDM**
*With full operative details, chemotherapy history, pathology and all radiology reports*

---

**Resectable Primary**
*Potentially Curable* Liver Metastasis

**Potentially Curable** Liver Metastasis

**Non-Resectable Primary or Incurable Liver Metastasis**

**Combined Procedure Removing Primary with Liver Resection**

**Resection of Primary at Local Unit**

**Immediate Surgery**
*If >12 months following Primary resection or post adjuvant Chemo*

**Combination Chemotherapy Re-Stage by CT Chest Abdomen Pelvis at ½ way Point**

---

**Chemotherapy and Palliative Care (Unit based)**
NECN CHEMOTHERAPY TREATMENT ALGORITHM FOR COLORECTAL

“Quality and safety for every patient every time”

For more information regarding this document, please contact:

NSSG Chair: Mr T Gill
INTRODUCTION

The 2011 Peer Review Chemotherapy Measures require each Network Site Specific group (NSSG) to agree in consultation with the Network Chemotherapy Group (NCG) a set of site specific chemotherapy treatment algorithms for the Network.

**Peer Review Definitions**

*Chemotherapy treatment algorithm*
A guideline which specifies the acceptable ranges of regimen options for named steps on the patient pathway. Treatment algorithms are cancer site-specific. Thus, the treatment algorithm for the Colorectal NSSG includes a statement of the range of regimens agreed as acceptable.

*Chemotherapy*
The term ‘chemotherapy’ refers to the use of those cytotoxic agents commonly understood and accepted as being covered by this term and includes other agents such as, biological therapy and small molecule tyrosine kinase inhibitors used for the systemic treatment of cancer.

In NECN Treatment Algorithms are included in each NSSG’s Clinical Guidelines which can be found under the tumour specific page of the guidelines section of the website; [http://www.necn.nhs.uk/group/colorectal-nssg/](http://www.necn.nhs.uk/group/colorectal-nssg/)

**SUPPORTING DOCUMENTS**

As new regimens are approved by NICE / NECDAG protocols for use of the new treatment will be uploaded to the chemotherapy site specific pages. The NSSG will be asked to update their algorithm with each new treatment approval.

The availability of the Cancer Drug Fund (CDF) has increased the number of treatments potentially available to patients. CDF funded drugs may not be included in the NSSG clinical guidelines due to the dynamic nature of CDF funding (i.e. treatments can be removed as well as added).

Any deviation from the algorithm should be recorded by the local Trust clinical chemotherapy service and brought to the NCG for discussion. The Network Policy on managing deviations from approved protocols/ algorithms is on the website: [http://www.necn.nhs.uk/chemotherapy-documents/](http://www.necn.nhs.uk/chemotherapy-documents/)

**LIST OF APPROVED REGIMENS**

The NECN website provides the most up to date list of approved regimens and should be regularly checked. Appendix One below summarises the Colorectal regimens on the website.
COLORECTAL ALGORITHM

CHEMOTHERAPY

Adjuvant chemotherapy

Relevant NICE guidance
TA100 April 2006 - Review date for NICE June 2009 (no new guidance).

The following are options for the adjuvant treatment of patients with Stage 3 (Dukes C) colon cancer following surgery for the condition:

- Capecitabine monotherapy
- Oxaliplatin in combination with 5FU and folinic acid

NECDAG guidance 2010

The following are options for the adjuvant treatment of patients with Stage 3 (Dukes C) colon cancer following surgery for the condition:

- Oxaliplatin combined with capecitabine (XELOX) or Oxaliplatin in combination with 5FU and folinic acid (FOLFOX).

Summary of current recommendations:

- Chemotherapy should be considered for patients with Dukes’ stage C and high risk Dukes’ stage B disease if they are physically and psychological fit enough to tolerate the treatment.
- Consideration should be given to entering suitable Dukes C and high risk Dukes B patients into the QUASAR 2 trial or the SCOT trial.
- Colorectal MDT should aim for appropriate patients to commence adjuvant chemotherapy within six weeks of surgery and no later than three months post op.
- Dukes’ stage low risk B and Dukes’ stage A lesions do not require adjuvant chemotherapy.
- The administration of chemotherapy should be supervised by a clinical or medical oncologist supported by chemotherapy nurse specialists and expert pharmacy and laboratory services.
- Provision should be made for expert advice to be made available to the primary care team and the patient on an urgent basis in the event of complications occurring.

Dukes’ C Colon - For details of the regimen see chemotherapy handbook

XELOX (oxaliplatin and capecitabine) 8 courses over 24 weeks.
FOLFOX (oxaliplatin and 5FU) 12 courses over 24 weeks.
Capecitabine 8 courses over 24 weeks.
Mayo 5FU regimen 6 courses over 24 weeks.
Modified Mayo. Weekly 5FU 24 weeks.
Dukes’ B Colon and Rectal Carcinoma - For details of the regimen see chemotherapy handbook

Capecitabine 8 courses over 24 weeks.
Mayo 5FU regimen 6 courses over 24 weeks.
Modified Mayo. Weekly 5FU 24 weeks.

Metastatic Disease

Patients presenting with liver only metastases/recurrence should be discussed with the local hepatobiliary unit (see Network HPB clinical guidelines and referral pathway at appendix 16.9), as superior survival results are seen if liver metastases are resected (5 year survival rates of 25-35% cf approaching 0% for palliative chemotherapy).

Patients presenting with lung only metastases/recurrence should be discussed with the local cardiothoracic unit, as superior survival results are seen if lung metastases are resected (5 year survival rates of 25-35% cf approaching 0% for palliative chemotherapy).

Similarly patients with limited liver and lung metastases may have both surgically removed.

Palliative Chemotherapy

NICE guidance.
TA176 August 2009. Cetuximab given with 5FU, folinic acid and oxaliplatin is recommended as first line treatment for people with metastatic colorectal cancer only when surgery to remove the cancer in the colon or rectum has been carried out or is possible and the metastases are only in the liver and cannot be surgically removed.

TA118 January 2007. Bevacizumab in combination with 5FU and folinic acid is not recommended for people with metastatic colorectal cancer who have not been treated before. Cetuximab in combination with irinotecan is not recommended for patients who have had previous treatment for the cancer that also included irinotecan.

TA93 August 2005. Irinotecan and oxaliplatin are recommended as possible options for people with advanced colorectal cancer if they are used in these ways. Irinotecan is given with 5FU and folinic acid to people who have not had chemotherapy for advanced colorectal cancer or on its own to people who have already had chemotherapy. Oxaliplatin is given with 5FU and folinic acid. Ralitrexed is not recommended.

TA 61. NICE has recommended that capecitabine or tegafur with uracil and oral folinic acid should be among the first option for a person with metastatic colorectal cancer (NOTE largely superseded by later guidance recommending combination chemotherapy)

NECDAG Guidance November 2009. Cetuximab can be used as third line treatment of metastatic colorectal cancer (MCRC) for patients with metastatic colorectal cancer who has failed failed treatment with irinotecan and/or oxaliplatin-based chemotherapy as a single agent in EGFR-expressing, K-RAS wild-type tumours for patients with a life expectancy of at least 8 weeks.

All treatments can be found on the National Cancer Drug Fund website.

First Line Chemotherapy (inoperable liver metastases, K RAS wild type see NICE guidance T) - For details of the regimen see chemotherapy handbook

- FOLFOX plus cetuximab (oxaliplatin and 5FU)

First Line Chemotherapy - For details of the regimen see chemotherapy handbook

Commonly used options:

- XELOX (oxaliplatin and capecitabine) 4 courses then reassess.
- FOLFOX (oxaliplatin and 5FU) 6 courses then reassess
- Capecitabine 4 courses then reassess
- FOLFIRI (irinotecan and 5FU) 6 courses then reassess

Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriate.

Less common options:

- Tegafur and uracil.
- Weekly bolus 5FU (weekly Mayo regimen).
- Infusional 5FU (De gramont or modified De gramont regimen)
- Continuous 5FU (Lokich regimen)

Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriate.

Second Line chemotherapy - For details of the regimen see chemotherapy handbook

Treatment will depend on what previous chemotherapy the patient has received.

Patients who have received FOLFOX or XELOX chemotherapy.
- Irinotecan 3 weekly 4 courses then reassess.
- Irinotecan weekly 12 weeks then reassess.
- FOLFIRI (Irinotecan and 5FU) 6 courses then reassess.
- CAPIRI (Irinotecan and capecitabine) 4 courses then reassess.

Patients who received an irinotecan regimen would be suitable for an oxaliplatin containing regimen.

- XELOX (oxaliplatin and capecitabine) 4 courses then reassess.
- FOLFOX (oxaliplatin and 5FU) 6 courses then reassess.

Patients who have not received oxaliplatin or irinotecan could receive either drug as described above. Treatment is for 12 weeks and then is reassessed. If the oxaliplatin regimen fails they could then potentially be treated with an irinotecan containing regimen or visa versa. Bevacuzimab can be given in addition to the above chemotherapy if clinically appropriatead the patient has not received bevacuzimab first line.
Third line treatment - *For details of the regimen see chemotherapy handbook*

- Cetuximab (for patients with wild type k ras)
- Mitomycin and capecitabine or 5FU

**NOTE**
Cetuximab, panitumumab or bevacizumab are not funded except for the above indications. Use within the top up payment scheme or for private patients outside these indications is possible. Use within the drugs licensed indications is recommended.

**Enrolment in clinical trials**
A number of clinical trials for various stages of colorectal cancer are run through the cancer units/centre, and it is encouraged that patients be considered for these where appropriate.
## APPENDIX ONE: NECN APPROVED LIST OF REGIMENS FOR COLORECTAL

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<td>Protocol for FOLFIRI (IrM\textsubscript{d}G) (Folinic Acid, Fluorouracil, Irinotecan)</td>
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<td>Protocol for Modified de Grammont (MdG) (Folinic Acid, Fluorouracil)</td>
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Appendix 17.1 Guidelines for the Management of Recurrent Rectal Cancer (LRRC) and Extended Resection for Locally Advanced Rectal Cancer

Introduction

LRRC occurs in 5-10% of patients having an R0 resection after primary TME surgery. With best supportive care the median survival is 6-7 months and this increases to 12-14 months if radiotherapy and/or chemotherapy can be given. Radical surgical resection is the only curative option in this cohort with reported 5 year survival rates of 32-57%. A recent meta-analysis of 1460 patients having surgery for LRRC has shown R0 resection achieved in 57% with R1 resection in 25% and R2 in 11%.

A recent UK survey of LRRC management has suggested around 700 cases are managed through UK MDT’s each year of which less than half are managed by surgery. A large number of units perform 1-3 cases annually with only 4 units performing more than 10 cases each year. Historically patients from the North East have often been referred to Leeds, which is the closest geographical centre and the largest UK tertiary referral centre. The NHS Commissioning Board has recently issued a Service Specification for “distal sacrectomy for advanced and recurrent rectal cancer”. Proposals for a National Recurrent Rectal Cancer Network were discussed at the Association of Coloproctology Meeting, Dublin, 2012.

Newcastle is bidding to become the second northern centre to offer such services, building on existing recognised related services, viz: Northern Regional Sarcoma Service and MDT, Regional Anal Cancer Service and MDT, Northern Centre for Cancer Care (oncological services), Regional Urology Service, and a well-established tertiary referral service for difficult colorectal conditions.

Through the development of specialist services at Newcastle, we are keen to attract patients with LRRC from the North-East region to discuss them in a dedicated MDT, consisting of a range of experts with an interest in LRRC, with a view to offering appropriate surgical intervention. Through our close links with Leeds, a second opinion would be sought for difficult or borderline cases.

These guidelines also apply to patients with locally advanced rectal cancer that may require sacrectomy to achieve surgically clear margins.

For Patients who do not require Sacrectomy, Gateshead and Middlesbrough MDTs and surgical teams provide extended pelvic resection for locally advanced and recurrent rectal cancer. There units also serve as the regional tertiary referral centres for Gynaecology.
Newcastle Recurrent Rectal Cancer MDT

(for local recurrence and extended resection including distal sacrectomy)

Surgical Team

Mr Paul Hainsworth.  Colorectal Surgeon.
Mr Ben Griffiths.  Colorectal Surgeon.
Mr Mike Gibson.  Spino-pelvic surgeon.
Miss Shona Murray.  Orthopaedic tumour and sarcoma surgeon.
Mr Craig Gerrand.  Orthopaedic tumour and sarcoma surgeon.
Mr Andy Thorpe.  Pelvic Tumour Urologist.
Mr Mark Johnson.  Pelvic Tumour Urologist.
Mr Edgar Paez.  Pelvic Tumour Urologist.
Mr Mani Ragbir.  Plastic Surgeon.
Mr Rick Milner.  Plastic Surgeon.
Mr Mike Clarke.  Vascular Surgeon.

Other Key MDT members

Dr Nick Thompson.  Nutrition team.
Dr Stephanie Needham.  Pathologist.
Dr John Scott.  Radiologist.
Dr Ian Pedley.  Clinical Oncologist.
Dr Tim Simmons.  Clinical Oncologist.
**Surgical Team**

Mr Paul Hainsworth has extensive experience in managing locally-advanced colon and rectal cancer including a large exenterative practice. He is an established member of the Sarcoma MDT, which has led to gaining significant experience in sacrectomy and pelvic sidewall dissection/resection. Alongside this, he has developed strong working relationships with spino-pelvic, vascular, urology and plastic surgeons which will be crucial in delivering this service.

Mr Ben Griffiths has locally-advanced colorectal cancer and LRRC as his main specialist interest having carried out a RCS fellowship in advanced/recurrent pelvic cancer with Professor PM Sagar at the John Goligher Colorectal Unit in Leeds. This wide-ranging experience included specialist MDT discussion of over 100 LRRC cases with 22 operations including 7 distal sacrectomies and 12 total pelvic exenterations.

**Oncology Services**

The Northern Centre for Cancer Care in Newcastle is equipped to deliver the latest oncological treatments to this cohort of patients, including selective re-irradiation and stereotactic radiotherapy, with a long term view of delivering intra-operative radiotherapy and brachytherapy in line with European and American practices.

**Allied Specialities**

Our team in Newcastle (Specialist nurses, Dieticians, NICE compliant Nutrition team, Physiotherapists etc) are already experienced in managing similar patients whose pathway is generally significantly different to a "standard" laparoscopic colorectal resection within an Enhanced Recovery Programme.

Our GI Radiologists are experienced in assessing advanced cases of pelvic cancer and have access to all the necessary imaging modalities. We would use the 'Leeds' staging protocol which includes CT chest/abdomen/pelvis, MRI pelvis, whole body PET-CT and biopsy where indicated. Twenty-four hour interventional radiology is available for the small number of cases where vascular intervention or drainage is required.

**Indications for extended resection for LRRC**

1. Only patients with isolated local recurrence should be considered for radical re-excision. Patients should be free of distant metastases e.g. liver, lung, peritoneum. Prior 'curative' resection of isolated metastases (e.g. liver or lung) is not necessarily a contraindication to further surgery. The concomitant presence of 'resectable' distant disease is more difficult and requires careful discussion.

2. Comprehensive imaging investigations (vide infra) should indicate that a R0 (margin-negative) resection is feasible. There is no place for planned palliative R1 (margin-positive) resection. Even with planned R0 surgery, pathological R0 surgery is achieved in only 50-84% patients in large series (Mannaerts GH et al 2001 8, Moriya Y et al 2004 9, Melton GB et al 2006 10, Sagar et al 2009 11).
3. Tumours involving the lower sacrum are more-likely to be amenable to potentially curative re-excision. The magnitude and complexity of surgery increases with higher levels of sacral division (S4/5 < S3/4 < S2/3). If a R0 resection cannot be achieved by S2/3 division then sacrectomy is generally contraindicated. Above this level, surgery encroaches on the sacroiliac joints, greater lateral tumour spread is likely, and neurological morbidity is increased. There is however a recent case series of successful R0 outcomes after high sacrectomy (Dozois EJ et al, 2011 12).

4. Lateral pelvic wall involvement is more difficult. MRI evidence of involvement of obturator internus, piriformis, and bilateral ureteric involvement needs careful discussion to determine whether R0 surgery is feasible. Encasement of external iliac vessels, extension through the sciatic notch and bilateral lower limb oedema resulting from venous or lymphatic obstruction are clear contraindications to surgery (Sagar et al, 2009 11).
Patient Pathway

Proposed pathway for patient referral:

- Suspected LRRC patient discussed at local CR MDT
  - Imaging requested (CT/MRI/PET)
  - Anaesthetic assessment likely to include CPEX

- Referral from local MDT to Newcastle LRRC MDT (Hainsworth or Griffiths: possible central referral point)

- Case discussed at Newcastle MDT (weekly) with tailored onco-surgical management plan—further opinion from Leeds in difficult/borderline cases

- Recommendations from MDT communicated to referring unit:
  - Best supportive care Palliative chemotherapy+/- radiotherapy
  - Surgery at Freeman Hospital to be carried out by LRRC team
Communication and Audit

- Structured, documentation MDT meetings, clinics and follow-up, all of which will be communicated to the referring unit.
- Newcastle database to be kept to include all patients discussed in the MDT irrespective of management suggested i.e. palliative or curative.
- Data collected will include R0 resection rates, morbidity and survival data, blood transfusion requirements, length of stay (critical care and ward) and operating times.
- An audit of outcomes will be carried out on a regular basis to ensure ongoing high standards are achieved

Future Perspectives
We are well equipped within the North East to offer a dedicated service to this difficult cohort of patients. It is envisaged that we will be able to establish a large practice in locally advanced rectal cancer and recurrent rectal cancer, taking referrals from within the region and the North of the UK.
Our longer term goals would be to collaborate with other centres in observational studies and randomised controlled trials to help improve outcomes in this cohort of patients.

References:


7. www.engage.commissioningboard.nhs.uk/.../ssc-area.../a8bservicespec.pdf


Ben Griffiths/Paul Hainsworth 03/2013
Title: NECN Referral Guidelines for Primary Care, Colorectal Cancer

Authors: Colorectal NSSG members

Circulation List: Primary Care Medical Practices

Contact Details: Mrs C McNeill, Peer Review Co-ordinator Claire.mcneill@nhs.net

Telephone: 01138252976

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The Colorectal Network Site Specific Group (NSSG) agreed to adopt this guidance. In addition, the policy for referring patients suspicious of colorectal cancer is to use the local referral proformas to the colorectal diagnostic service for the locality, ie fax number (Choose and Book, where appropriate). Therefore, please refer to local Trust for appropriate referral form.

However, if required, a suggested Network proforma is available as soon on page13.

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</tr>
<tr>
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<tr>
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<tr>
<td>Queen Elizabeth Hospital (Gateshead) (QE)</td>
<td>Fax: 0191 4820360</td>
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<tr>
<td>Royal Victoria Infirmary (Newcastle) (RVI)</td>
<td>Fax: 0191 2231155</td>
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<tr>
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<tr>
<td>James Cook University Hospital (JCUH)</td>
<td>Fax: 01642 282826</td>
</tr>
<tr>
<td>Friarage Hospital (FH)</td>
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Cancer Network Suggested Referral Proforma for Suspected Colorectal Cancer

To make a referral, FAX this form to the Urgent Referral Team at the relevant hospital.
If you wish to send an accompanying letter, please do so

Please complete for which hospital referred to as detailed in local DOS

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Fax</th>
<th>Tel:</th>
</tr>
</thead>
</table>

From:
(use practice stamp if available):

<table>
<thead>
<tr>
<th>Address:</th>
<th>GP’s name:</th>
<th>P.C.G. code:</th>
<th>Tel no:</th>
<th>Fax no:</th>
</tr>
</thead>
</table>

Post code: | Tel: | Date of Referral: |
|-----------|------|------------------|

Patient Details:

<table>
<thead>
<tr>
<th>Name:</th>
<th>D.O.B:</th>
<th>Age:</th>
<th>Gender: m/ f</th>
<th>Tel no (home):</th>
<th>Tel no (work):</th>
<th>New NHS No:</th>
<th>Hospital No. (if known):</th>
<th>First language:</th>
</tr>
</thead>
</table>

Has the patient previously visited this hospital? Y / N

Interpreter required? Y / N

Referral information (please ☐ boxes):

Primary symptoms:

<table>
<thead>
<tr>
<th>Rectal Bleeding</th>
<th>Abdominal pain</th>
<th>Anal symptoms</th>
<th>Change in bowel habit</th>
<th>Increased frequency/looseness</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
</tbody>
</table>

Systemic symptoms:

<table>
<thead>
<tr>
<th>Weight loss</th>
<th>Tiredness/weakness</th>
<th>Symptoms of anaemia</th>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Palpable abdominal mass</th>
<th>Palpable rectal mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes ☐ No ☐</td>
<td>Yes ☐ No ☐</td>
</tr>
</tbody>
</table>

Investigations:

<table>
<thead>
<tr>
<th>Haemoglobin:</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>g/dl</td>
<td></td>
</tr>
</tbody>
</table>
Network Agreed Policy for Diagnosis and Assessment

**NATIONAL GUIDELINES FOR REFERRAL OF PATIENTS WITH SUSPECTED BOWEL CANCER**

“2 WEEK RULE”

THE 2 WEEK RULE APPLIES ONLY FOR GP SUSPECTED CANCER AND DOES NOT APPLY TO OTHER TYPES OF URGENT REFERRAL.

It is recommended that these symptom and sign combinations WHEN OCCURRING FOR THE FIRST TIME should be used to identify patients for urgent referral under the two-week standard IF BOWEL CANCER IS SUSPECTED.

<table>
<thead>
<tr>
<th>Symptoms &amp; Sign Combinations</th>
<th>Age Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal bleeding WITHOUT *anal symptoms</td>
<td>Over 60</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation persistent for 6 weeks With rectal bleeding</td>
<td>Over 40</td>
</tr>
<tr>
<td>Without rectal bleeding</td>
<td>Over 60</td>
</tr>
<tr>
<td>Iron deficiency anaemia without an obvious cause (Hb&lt;110g/l in men or Hb&lt;100g/l in postmenopausal women)</td>
<td></td>
</tr>
<tr>
<td>A definite palpable right-sided abdominal mass or rectal (not pelvic) tumour</td>
<td>Over 40</td>
</tr>
</tbody>
</table>

NB. Patients with the following symptoms and no abdominal or rectal mass are at very low risk of cancer:

- Rectal bleeding with anal symptoms*
- Change in bowel habit to decreased frequency of defecation and harder stools.
- Abdominal pain without a clear evidence of intestinal obstruction.

* Anal symptoms include soreness, discomfort, itching, lumps and prolapse as well as pain.

** This is the Department of Health Guidelines published in June 2000. The Cancer Care Alliance Colorectal SSG has adopted these guidelines with lowering the age limit to 50 years.
NSSG/Network Policy for onward referral of patients diagnosed with colorectal cancer or non-malignant disease

This policy has been developed to ensure that timely and appropriate communication is in place between clinicians and with the patient. Outlining the onward referral of patients diagnosed with colorectal cancer or non-malignant disease

- Patients who are unexpectedly diagnosed with colorectal cancer or known patients who are diagnosed with recurrent or metastatic disease will be referred by the medical team responsible for their care to a core member of the MDT within one full working day of the diagnosis being made. In most cases this will be the Colorectal Nurse Specialist.

- The core member of the MDT will ensure that such patients are discussed at the next MDT.

- If a patient has been diagnosed via endoscopy, the performing endoscopist is responsible for informing the patient or the referring consultant of the diagnosis and onward referral to the MDT. The performing endoscopist is also responsible for informing the GP of the diagnosis.

- If non-malignant disease is diagnosed and further investigation or treatment is required, the report is sent to the referring clinician who will inform the patient and organise further investigation.

- The GP will be informed of a diagnosis of malignancy no later than 24 hours (1 working day) after the patient has been informed.

- Clinical Nurse Specialist may be contacted by bleep, via Hospital Trust switchboards.

- In all instances diagnosis will only be conveyed face to face with the patient. The Consultant with clinical responsibility for a patient is responsible for informing the patient of a confirmed diagnosis of Colorectal cancer. Responsibility may be delegated by the Consultant to appropriately trained professional colleagues (e.g. Colorectal Nurse Specialist, SpR)
Contact details for the CNS and the MDT coordinators are set out in table 1 & Table 2:

### Table 1

<table>
<thead>
<tr>
<th>Trust</th>
<th>CNS</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Maralyn Boyd, Susan Rodda</td>
<td>0191 2525252</td>
</tr>
<tr>
<td></td>
<td>Rosemary Jobling</td>
<td></td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Claire Egglestone</td>
<td>0191 4820000</td>
</tr>
<tr>
<td>Newcastle upon Tyne Hospitals Foundation Trust</td>
<td>Ruth Christer, Debora Hall</td>
<td>0191 2336161</td>
</tr>
<tr>
<td></td>
<td>Liz Robinson, Alison Sharpe</td>
<td></td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust</td>
<td>Elizabeth Robinson, Pamela Robson</td>
<td>01670 529239</td>
</tr>
<tr>
<td></td>
<td>Helen Watson (Wansbeck)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Debbie Sharples, Barbara Stephenson,</td>
<td></td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust</td>
<td>Helen Watson, Anne Smith, Liz</td>
<td>0191 2934006</td>
</tr>
<tr>
<td>(North Tyneside &amp; Hexham)</td>
<td>Robinson, Pamela Robson</td>
<td></td>
</tr>
<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td>Angela Wright</td>
<td>01228 814865</td>
</tr>
<tr>
<td></td>
<td>Pat Kirkbride</td>
<td>01946 693181 Ext 4056</td>
</tr>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>Jane Barnes</td>
<td>0191 4041000</td>
</tr>
<tr>
<td></td>
<td>Teresa Liddle</td>
<td></td>
</tr>
<tr>
<td>County Durham and Darlington NHS Foundation</td>
<td>Denise Carter, Alison Mills,</td>
<td>0191 3332333</td>
</tr>
<tr>
<td>Trust</td>
<td>Karen Dixon</td>
<td>01325 743028</td>
</tr>
<tr>
<td></td>
<td>Clare Westwood, Tracy Wood</td>
<td></td>
</tr>
<tr>
<td>North Tees &amp; Hartlepool NHS Trust</td>
<td>Norma Robinson</td>
<td>01642 624399</td>
</tr>
<tr>
<td></td>
<td>Gill Trainer</td>
<td>01429 522335</td>
</tr>
<tr>
<td>South Tees Hospitals NHS Trust</td>
<td>Sarah Carroll, Tracey Pugh, Angela</td>
<td>01642 854847</td>
</tr>
<tr>
<td></td>
<td>Stanley</td>
<td>01609 764702</td>
</tr>
<tr>
<td></td>
<td>Judith Smith /Joan Tickle (Friarag</td>
<td>01609 764620</td>
</tr>
<tr>
<td></td>
<td>Hospital)</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Trust</th>
<th>MDT Co-ordinator</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Lynn Dunn</td>
<td>0191 5656256 ext 47596</td>
</tr>
<tr>
<td>County Durham and Darlington NHS Foundation</td>
<td>Sarah Cummings</td>
<td>0191 3332760</td>
</tr>
<tr>
<td>Trust</td>
<td>Laura Waters</td>
<td>01325 743028</td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust</td>
<td>Susan Walker</td>
<td>0191 4452936</td>
</tr>
<tr>
<td>Newcastle upon Tyne Hospitals Foundation Trust</td>
<td>Elaine Wood FH</td>
<td>0191 2336161 Ext 27304</td>
</tr>
<tr>
<td>Northumbria Healthcare NHS Foundation Trust</td>
<td>Jasmine Fenwick</td>
<td>0344 8118111 Ext 2039</td>
</tr>
<tr>
<td>North Cumbria University Hospitals NHS Trust</td>
<td>CIC Kate Neile</td>
<td>01228 814024</td>
</tr>
<tr>
<td></td>
<td>WCH Susan Buckland</td>
<td>01946 693181 ext 4090</td>
</tr>
<tr>
<td>South Tyneside NHS Foundation Trust</td>
<td>Louise Butcher</td>
<td>0191 4041000 ext 2312</td>
</tr>
<tr>
<td></td>
<td>Roya Marley</td>
<td></td>
</tr>
<tr>
<td>North Tees &amp; Hartlepool NHS Trust</td>
<td>Sarah Cawkwell</td>
<td>01642 624102</td>
</tr>
<tr>
<td>South Tees Hospitals NHS Trust</td>
<td>Emma Cooper</td>
<td>01642 835763</td>
</tr>
</tbody>
</table>
Clinical Responsibility for the Colorectal Pathway

GP Decision to refer (DtR) ➔ Central Booking service (Choose and Book referral sent) ➔ Forwarded to Clinical assessment ➔ Rectal bleed clinic ➔ OGD colonoscopy ➔ OP clinic ➔ MDT ➔ Decision to Treat (DtT) ➔ Treatment

Patient told they will be contacted in 5 days

NB - The Diagnostic and Treating Clinician may be the same person (Revised August 10)
REFERRAL CRITERIA DETAILS

1. **PR Bleeding**
   - Rectal bleeding is a symptom of early bowel cancer rather than late\(^{15}\).
   - Rectal bleeding of recent onset in people over the age of 50 should not be attributed to haemorrhoids without excluding colorectal cancer or adenomatous polyps\(^{3}\).
   - Rectal bleeding in association with anal symptoms is less likely to be due cancer than rectal bleeding alone.
   - Patients with rectal bleeding and anal symptoms who do not have a change in bowel habit or palpable ano-rectal mass have a low likelihood of cancer\(^{15-17}\).
   - Colorectal cancer is highly unlikely (<1%) in patients who saw blood only on toilet paper with no change in bowel\(^{3}\).
   - Limited colonoscopy to splenic flexure is a sufficient investigation when rectal bleeding occurs alone.
   - All new cases of rectal bleeding aged over 50 should be investigated.
   - Rectal examination by GP is essential
   - Barium enema is not an adequate investigation of rectal bleeding since it does not reliably identify significant polyps or areas of mucosal inflammation.
   - Patients aged 50 or less cancer is unlikely diagnosis\(^{20}\).

2. **Change of bowel habits**
   - If age over 50 years and persisting for 6 week needs investigation.
   - Constipation alone has a very low yield for carcinoma (0.8%)\(^{4,21,22}\).
   - Increased looseness and frequency of motion has a higher yield for carcinoma\(^{4,15}\).
   - Rectal bleeding associated with change of bowel habits to looser more frequent motion has the highest predictive value for colorectal cancer\(^{4,15,22}\).
   - Rectal examination by GP is essential.

3. **Iron Deficiency Anaemia**
   - If Hypochromic microcytic iron deficiency anaemia (Hb < 10gm/dl) is present, gastric or colonic malignancy must be excluded when there is no obvious source of blood loss.
   - IDA = Low HB, Low MCV, Low MCH, Low Serum Ferritin.
   - The likelihood of bowel cancer increase if associated with bowel symptoms.
   - Measurement of Serum Ferritin is helpful to distinguish from other types of anaemia
   - Endomysial antibody (Ig A) is helpful to roll out possibility of Coeliac Disease
   - Faecal occult blood is of no use since it has a 30% false negative for colorectal cancer and a 70% false negative rate for colonic polyps.
   - Investigation of post-menopausal women and men with iron deficiency anaemia has a high yield for colorectal cancer (25%)\(^{23}\).

4. **A definite abdominal mass**
Especially if associated with bowel symptoms.
More likely in right iliac fossa.

A definite rectal (not pelvic) Tumour

A definite rectal tumour felt on rectal examination. Hard, ulcerated or polyploid or stenosing and intra-luminal.
Extra-rectal and pelvic mass is more likely to be Gynaecological in origin
## PATHWAY FOR PATIENT REFERRED WITH SUSPECTED BOWEL CANCER
### “2 WEEK RULE APPLIES”

<table>
<thead>
<tr>
<th>Referral Criteria / Symptoms</th>
<th>Age</th>
<th>Test / Outcome</th>
<th>Protocol Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Rectal Bleeding alone</td>
<td>=,&gt;60</td>
<td>Endoscopic examination to splenic flexure</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Rectal bleeding WITH a change in bowel habit to looser stools and/or increased frequency of defaecation persistent for 6 weeks.</td>
<td>Over 40</td>
<td>Colonoscopy (with random biopsies if normal)</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Change of bowel habit to looser stools and/or increased frequency of defaecation, WITHOUT rectal bleeding and persistent for 6 weeks.</td>
<td>=,&gt;60</td>
<td>Colonoscopy (with random biopsies if normal)</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>Iron deficiency anaemia WITHOUT an obvious cause (Hb &lt;110 g/l in men or &lt;100g/l in postmenopausal women).</td>
<td></td>
<td>OGD &amp; D2 biopsy Colonoscopy</td>
<td>Diagnostic Team</td>
</tr>
<tr>
<td>A DEFINITE palpable right-sided abdominal mass</td>
<td></td>
<td>Surgical outpatient then colonoscopy if appropriate</td>
<td>MDT</td>
</tr>
<tr>
<td>A DEFINITE palpable rectal (not pelvic) Tumour.</td>
<td></td>
<td>Surgical outpatient then colonoscopy if appropriate</td>
<td>MDT</td>
</tr>
</tbody>
</table>
ORGANISATION AND PROCESS

1. **Bowel preparation**
   - Fit patients for outpatient bowel preparation: Full bowel preparation at home.
   - Unfit patients for outpatient bowel preparation and IDDM patients: full prep. As inpatient.

2. **Exclusion criteria outpatient colonoscopy (see below)**
   - Unfit for colonoscopy or full bowel preparation at home.
   - Unfit for sedation.
   - Patient with haematological defects.
   - Patients who refuse the investigation or bowel preparation.

3. **Two Week Rule Referral Process**
   
   a) The patient should be informed by their GP that they are referred to hospital with suspected bowel cancer under the 2-week rule. They should be informed that they are referred directly to lower GI Endoscopy which requires full bowel preparation or to an outpatient clinic as indicated above.

   b) The patient will be given a ‘booking leaflet’ by the GP upon the decision to refer, the leaflet gives the patient information about why they have been referred urgently and what the process is to obtain an appointment date within 2 week of referral. The patient booking leaflet asks the patient to telephone the central appointments office “local acute trust 2 week referral office” the next working day to agree a suitable appointment date (to ensure that the booking rule is observed). A section of the booking leaflet will have been completed by the GP giving information such as name of GP, patient NHS number, hospital referred to, speciality referred to, name of consultant referred to and date seen in GP surgery. The patient may be asked to quote some or all of this information when contacting the central booking office.

   c) If the patient does not contact the central booking office then the central booking clerk will contact the patient to offer an appointment date, using patient contact details quoted on the fax referral form, if no contact can be made then the central booking clerk will contact the GP.

   d) The GP will then complete the corresponding speciality fax referral pro-forma and fax to the dedicated number immediately. The GP’s have a referral pack which contains two-week rule referral guidelines and copies of the fax pro-forma and booking leaflet. Additional letter or information is welcomed as long as the form is filled. It is essential to enclose a list of current medication and medical history.

   e) An appointment clerk will make the booking within 2 weeks for lower GI Endoscopy or clinic as above after agreeing the date with the patient.

   f) Incomplete referral forms or referral with no form, the GP practice will be contacted and asked to supply the relevant information. A copy of the guidelines will be send to the practice.
g) Each patient can only be referred once for each episode under this system.

1 Referral Proforma

a) All referrals must be made on a proforma
b) Proforma must be filled in full please

2 The Test
Limited (to splenic flexure) or full colonoscopy.
If polyp, cancer or colitis is found a full colonoscopy will be performed and polyps will be removed.

3 Follow Up
Patients will be followed up according to diagnosis
Patients with negative colonoscopy will be discharged back to GP, seen in clinic, at discretion of endoscopist (further investigation) as indicated on the referral form
Symptomatic Bowel Referral Guidelines

Alarm Symptoms:
- PR bleeding & loose / more frequent stools for > 6 weeks
- PR bleeding persistently without anal symptoms > 50 years old
- Loose / more frequent stools > 6 weeks > 50 years old
- IDA with no obvious cause (men or post-menopausal women) * see criteria
- Right sided or rectal mass

* Iron Deficient Anaemia:
- Hb < 110 g/l in men or <100 g/l in post-menopausal women
- Low Ferritin on its own or Low/normal ferritin + low MCV/MCH } If not IDA, Endoscopy is not required
# Cancer Network Suggested Referral Proforma for Suspected Colorectal Cancer

To make a referral, **FAX** this form to the **Urgent Referral Team** at the relevant hospital.

*If you wish to send an accompanying letter, please do so*

Please complete for which hospital referred to as detailed in local DOS

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Fax</th>
<th>Tel:</th>
</tr>
</thead>
</table>

**From:**

*(use practice stamp if available):*

<table>
<thead>
<tr>
<th>Address:</th>
<th>GP’s name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post code:</td>
<td>P.C.G. code:</td>
</tr>
<tr>
<td>Date of Referral:</td>
<td>Tel no:</td>
</tr>
</tbody>
</table>

**Patient Details:**

<table>
<thead>
<tr>
<th>Name:</th>
<th>D.O.B: ....../....../...... Age: ...... Gender: m/ f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Tel no (home):</td>
</tr>
<tr>
<td>Post code:</td>
<td>Tel no (work):</td>
</tr>
<tr>
<td>Has the patient previously visited this hospital? Y / N</td>
<td>New NHS No:</td>
</tr>
<tr>
<td>Interpreter required? Y / N</td>
<td>Hospital No. <em>(if known):</em></td>
</tr>
<tr>
<td>First language:</td>
<td></td>
</tr>
</tbody>
</table>

**Referral information (please ✗ boxes):**

<table>
<thead>
<tr>
<th>Primary symptoms:</th>
<th>Systemic symptoms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal Bleeding</td>
<td>Weight loss</td>
</tr>
<tr>
<td></td>
<td>Yes ✗ No *</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>Tiredness/weakness</td>
</tr>
<tr>
<td>Yes ✗ No *</td>
<td>Yes ✗ No *</td>
</tr>
<tr>
<td>Anal symptoms</td>
<td>Symptoms of anaemia</td>
</tr>
<tr>
<td>Yes ✗ No *</td>
<td>Yes ✗ No *</td>
</tr>
<tr>
<td>Change in bowel habit</td>
<td>Examination</td>
</tr>
<tr>
<td>Yes ✗ No *</td>
<td>Palpable abdominal mass</td>
</tr>
<tr>
<td>Increased frequency/looseness</td>
<td>Palpable rectal mass</td>
</tr>
<tr>
<td>Yes ✗ No *</td>
<td>Yes ✗ No *</td>
</tr>
<tr>
<td>Other_________________</td>
<td>Other_________________</td>
</tr>
</tbody>
</table>

**Investigations:**

<table>
<thead>
<tr>
<th>Haemoglobin</th>
<th>g/dl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**Comments/other reasons for urgent referral:**
To be completed by the Data Team:

Date  Date received:  Date 1st appointment booked: Date of 1st appointment:  
Date 1st seen: Specify reason if not seen at 1st appointment offered:  
Final diagnosis: Malignant / Benign: (please underline)

Malignant or non-malignant disease
The diagnosing clinician is responsible for the patient while staging is being carried out but the referring clinician from the MDT retains clinical responsibility for that patient, whether the diagnosis is malignant or non-malignant disease. See table below for the agreed contact referral routes for patients with liver metastases.
<table>
<thead>
<tr>
<th>Hospital Trust</th>
<th>Diagnostic</th>
<th>MDT</th>
<th>MDT Lead Clinician</th>
<th>MDT Contact Point</th>
<th>MDT for Resection of Liver Metastases</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Hospital North Durham Shotley Bridge</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Miss S E Green</td>
<td>Fax: 01207 594406</td>
<td></td>
</tr>
<tr>
<td>Royal Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunderland Royal Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr J Corson</td>
<td>Fax: 0191 5410515</td>
<td></td>
</tr>
<tr>
<td>Wansbeck General Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Ms S Mills</td>
<td>Email MDT.Meetinginbox@northumbr ia-healthcare.nhs.uk</td>
<td></td>
</tr>
<tr>
<td>North Tyneside General Hospital</td>
<td>√</td>
<td>Colorectal MDT (link with Hexham)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexham General Hospital</td>
<td>√</td>
<td>Joint colorectal MDT with NTGH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Cumberland Hospital, Whitehaven</td>
<td>√</td>
<td>WCH V/C link with CIC into MDT meeting (1 MDT across 2 sites)</td>
<td>Dr J Nicoll</td>
<td>Fax: 01946 523489</td>
<td></td>
</tr>
<tr>
<td>Cumberland Infirmary Carlisle</td>
<td>√</td>
<td>Colorectal MDT</td>
<td></td>
<td>Fax: 01228 634001</td>
<td></td>
</tr>
<tr>
<td>Queen Elizabeth Hospital, Gateshead</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr M Katory</td>
<td>Fax: 0191 4820360</td>
<td></td>
</tr>
<tr>
<td>Royal Victoria Infirmary, Newcastle</td>
<td>√</td>
<td>Joint Colorectal MDT (with FRH and NGH and holding alternate meetings at the FRH site) including local resection of early rectal cancer and Anal MDT</td>
<td>Mr J Hansen</td>
<td>Fax: 0191 2231155</td>
<td></td>
</tr>
<tr>
<td>Freeman Hospital, Newcastle</td>
<td>√</td>
<td>Colorectal MDT</td>
<td>Mr A Krishna</td>
<td>Fax: 0191 2022191</td>
<td></td>
</tr>
<tr>
<td>South Tyneside District Hospital</td>
<td>√</td>
<td>Colorectal MDT</td>
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<tr>
<td>Hospital Trust</td>
<td>Diagnostics</td>
<td>MDT</td>
<td>MDT Lead Clinician</td>
<td>MDT Contact Point</td>
<td>MDT for Resection of Liver Metastases</td>
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<tr>
<td>Bishop Auckland Hospital</td>
<td>√</td>
<td>Joint Colorectal MDT with UGI using videoconferencing facilities cross sites</td>
<td>Mr K Gunning</td>
<td>Fax: 01207 594406</td>
<td>St James’, Leeds</td>
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<tr>
<td>Darlington Memorial Hospital</td>
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<tr>
<td>University Hospital of North Tees</td>
<td>√</td>
<td>Joint Colorectal MDT including local resection of early rectal cancer</td>
<td>Mr T Gill</td>
<td>Fax: 01642 624957</td>
<td>Freeman Hospital, Newcastle and occasionally St James’, Leeds</td>
</tr>
<tr>
<td>University Hospital of Hartlepool</td>
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<tr>
<td>James Cook University Hospital</td>
<td>√</td>
<td>Joint Colorectal MDT at The James Cook University Hospital including Anal cancer MDT</td>
<td>Dr N Wadd</td>
<td>Fax: 01642 282826</td>
<td>St James’, Leeds or occasionally Freeman Hospital, Newcastle</td>
</tr>
<tr>
<td>Friarage Hospital</td>
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<td></td>
<td>Fax: 01609 762149</td>
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</tr>
</tbody>
</table>

The imaging group will inform the MDT and clinician of imaging results and the MDT/clinician will inform the patient and GP. The CNS will inform the GP of malignant disease by the following working day after the patient has been informed. See MDT/CNS contact details.