



West Yorkshire & Harrogate Cancer Alliance

Guidelines for the Management of Upper Gastro-Intestinal Cancer

Updated July 2017

i Document Control

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Author(s)	West Yorkshire & Harrogate Upper GI MDT Leads
Owner	West Yorkshire & Harrogate Cancer Alliance

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3.0	July 2017	Review and Update

Contributors to current version		
Contributor	Author/Editor	Section/Contribution
Members of the UGI Site Specific Group		Various sections
Sub Regional Palliative and EoL Group		Palliative & End of Life Care
Dr Heike Grabsch		Guidelines for the examination and reporting of Upper GI cancer specimens
Mr John May		Review and Update

ii Information Reader Box

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Contact details	West Yorkshire & Harrogate Cancer Alliance NHS Wakefield CCG White Rose House West Parade Wakefield WF1 1LT

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1 Introduction

1.1 National Guidance for Upper Gastro-intestinal cancer

The 'Improving Outcomes in Upper Gastro-intestinal Cancers' document, produced by the National Guidance Steering Group in January 2001, highlights the following key recommendations:

All hospitals which intend to provide services for patients with upper gastro-intestinal cancer should be fully involved in appropriate Cancer Networks which include inter-linked Cancer Centres and Cancer Units. Each region should review proposals for these services, to ensure that proposed local arrangements reflect the recommendations in this guidance more accurately.

There should be documented local referral policies for diagnostic services for suspected upper gastro-intestinal cancers. These should be jointly agreed between General Practitioners (GPs) in Primary Care Groups and Trusts, and appropriate specialists in local hospitals and cancer Units and Centres in each Network.

Specialist treatment teams should be established at appropriate Cancer Centres or Units. Oesophago-gastric Cancer Teams should aim to draw patients from populations of more than one million; Pancreatic Cancer Teams should aim to draw patients from populations of two to four million.

There should be clear documented policies for the referral of patients between hospitals, and for processed by which clinicians in local hospitals seek advice from specialist treatment teams about the management of individual patients for whom referral may not be appropriate.

Palliative and support and specialist care should be available to all who need it. This will require effective co-ordination and communication between primary care, social and voluntary services, local palliative care teams, hospital services and those who provide specialist advice and interventions.

Monitoring systems using common data-sets should be established throughout each Cancer Network to audit patient management, key communications, referral processes and key outcomes of treatment.

1.2 Upper Gastro-Intestinal Cancer Services in the West Yorkshire & Harrogate Cancer Alliance

The West Yorkshire & Harrogate Cancer Alliance (WY&H CA) has a resident population of approximately 2.6 million and there are 11 Clinical Commissioning Groups and 6 Acute Hospital Trusts within the Network. The Cancer Centre is based at Leeds Teaching Hospitals NHS Trust

Hospital Trust	Team
Airedale NHS Foundation Trust	Diagnostic/Local Care
Bradford Teaching Hospitals NHS Foundation Trust	Diagnostic/Local Care/Specialist Oesophago-gastric Team (in combination with Airedale and Calderdale and Huddersfield)
Calderdale & Huddersfield NHS Foundation Trust	Diagnostic/Local Care Team
Harrogate and District NHS Foundation Trust	Diagnostic/Local Care Team
Leeds Teaching Hospitals NHS Trust	Diagnostic/Local Care/Specialist Oesophago-gastric Team (in combination with Harrogate, Mid Yorkshire and York)
Mid Yorkshire Hospitals NHS Trust	Diagnostic/Local Care Team

York Hospitals NHS Foundation Trust, which is now part of the Humber Coast and Vale Cancer Alliance – also has a Diagnostic/Local Care Team.

Note: Each hospital Trust has a local diagnostic/local care team in place. Patients from Harrogate, Mid Yorkshire and York are referred to the Leeds Specialist OG Team for surgical treatment and patients from Airedale and Calderdale and Huddersfield requiring surgical treatment are referred to the Bradford Specialist OG Team.

1.3 Purpose and Scope of Document

These guidelines are based on the national Improving Outcomes in Upper Gastro-intestinal Cancers guidance, and accompanying research evidence, with appropriate interpretation for our local service. The clinical guidelines cover the investigation and management of oesophageal and gastric cancer. The investigation and management of pancreatic cancer is not covered in this document, however there is a separate guideline for pancreatic cancer.

The guidelines were originally written by members of the former Yorkshire Cancer Network Upper GI Site Specific Group and will be reviewed every three years or sooner if new guidance becomes available.

1.4 Upper Gastro-Intestinal Cancer

Cancers of the oesophagus, stomach, and pancreas – referred to collectively as upper gastro-intestinal cancers – led to 18,250 deaths in England and Wales in 1997, or 13.5% of all cancer deaths. These cancers are rarely diagnosed until they reach an advanced stage; the symptoms of early tumours are very common and are not specific to cancer. Consequently, the prognosis for most patients is very poor and more than three quarters die within a year of diagnosis.

A general practitioner, with a list of 2,000 patients, is unlikely to see more than one new patient with any of these cancers per year. An average District General Hospital, serving a population of 200,000, could expect to deal with fewer than 25 people with oesophageal cancer, 40 with gastric cancer and 25 with pancreatic cancer each year

2 Guidelines for the Investigation and Management of Oesophageal and Gastric Cancer

The former Yorkshire Cancer Network Upper GI Group endorsed and adopted the guidelines for the management of oesophageal and gastric cancer by W H Allum, Jane M Blazeby, S Michael Griffin, David Cunningham, Janusz A Jankowski, Rachel Wong, on behalf of the Association of Upper Gastrointestinal Surgeons of Great Britain and Ireland, the British Society of Gastroenterology and the British Association of Surgical Oncology. *Gut* 2011; Volume 60:1449-1472 Published Online First: 24 June 2011 doi:10.1136/gut.2010.228254

A summary extracted from the guidelines can be found in Appendix 1. A full version can be found at www.gut.bmj.com

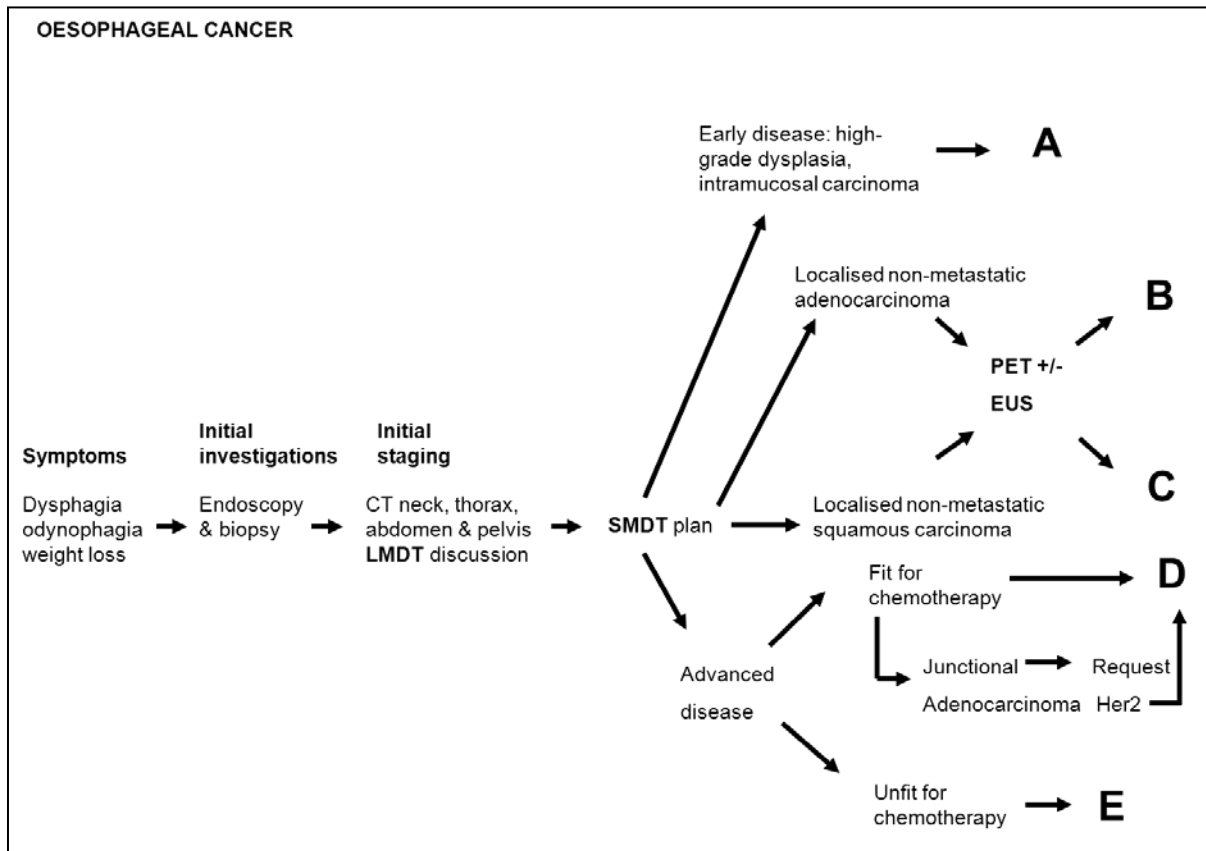
As of June 2017 this paper is still the basis for the Oeophago-gastric cancer guidelines published on the association of Upper GI surgeons website.

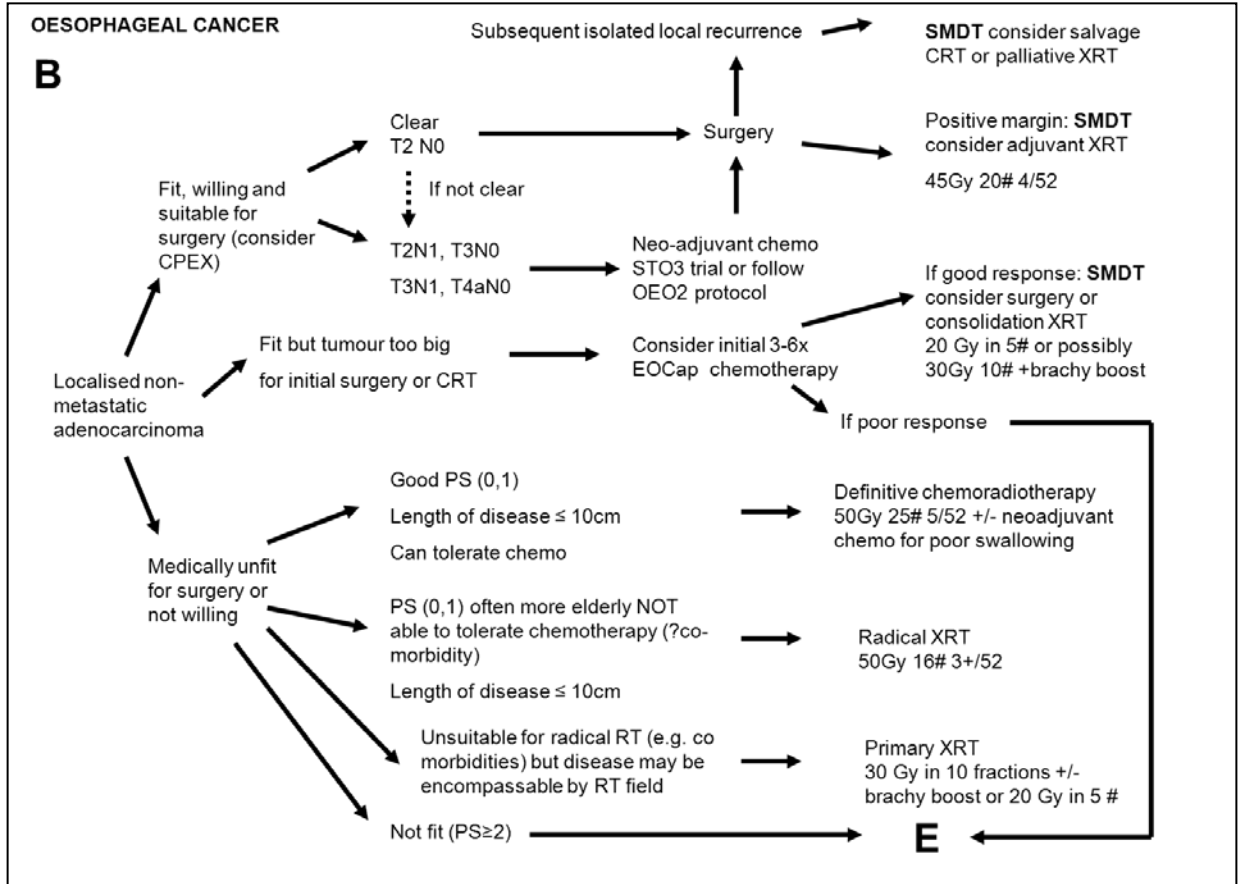
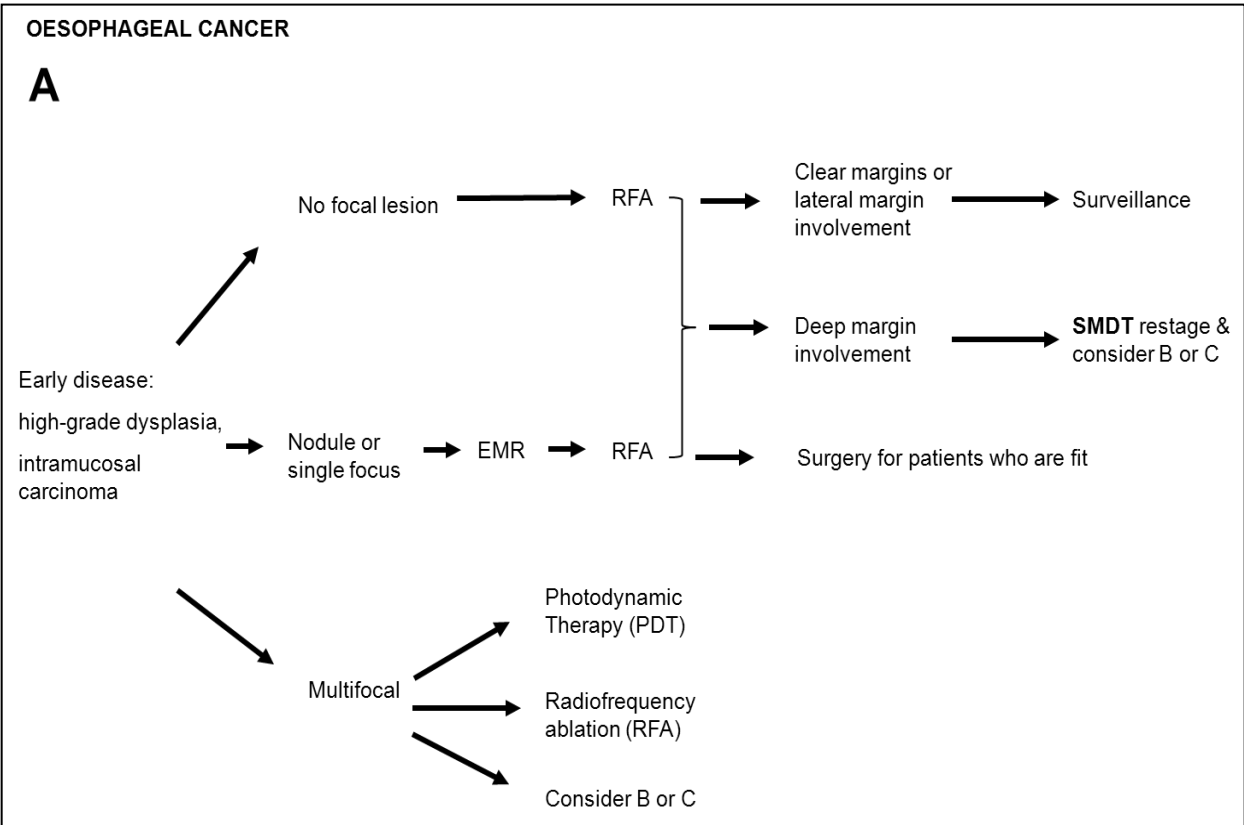
It is noted that the National Institute of Clinical Excellence is due to publish oesophago-gastric cancer guidelines in January 2018 and this should prompt a further review of our guidelines.

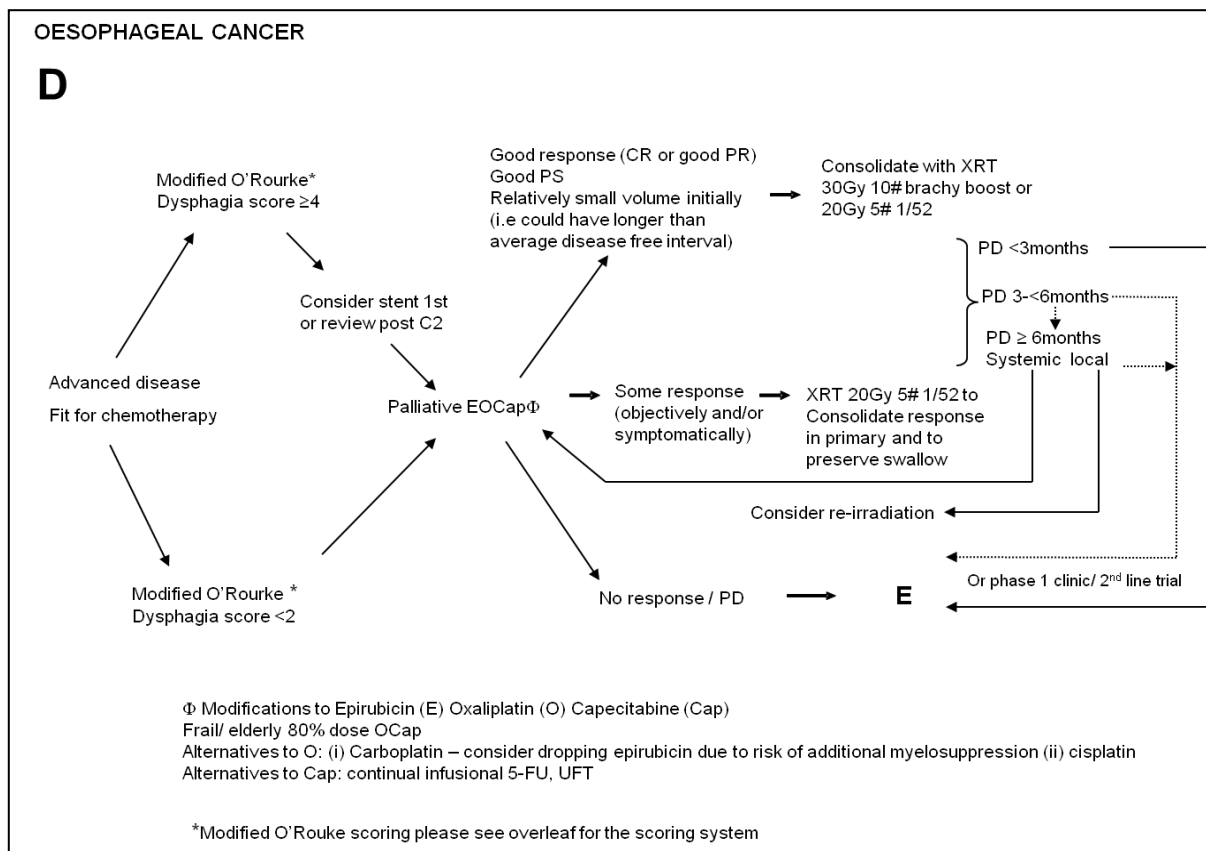
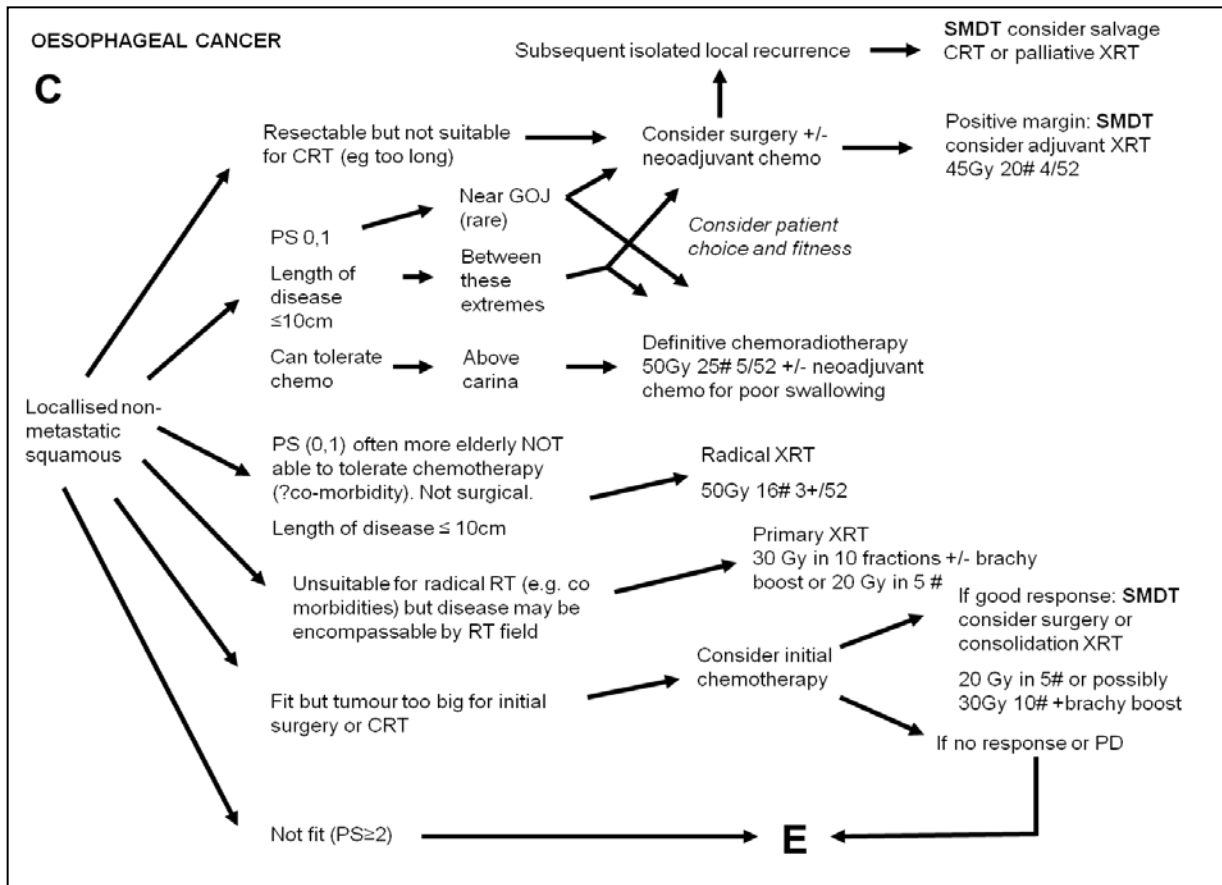
The former YCN Upper GI Network Group endorses and has adopted the updated algorithms below that describe the management of oesophageal and gastric cancer, which reflect how practice has moved on since the publication of the above document. They incorporate new staging techniques and neo adjuvant therapy protocols.

The former YCN Upper GI Network Group also endorses the British society of Gastroenterology Guidelines for the treatment of Barretts dysplasia and early stage oesophageal cancer. *Consensus statements for management of Barretts Dysplasia and early-stage oesophageal adenocarcinoma, based on a Delphi process. Gastroenterology august 2012, Volume 143, issue 2, pages 336-346.*

2.1 Oesophageal Cancer







Modified O'Rourke Dysphagia Grading

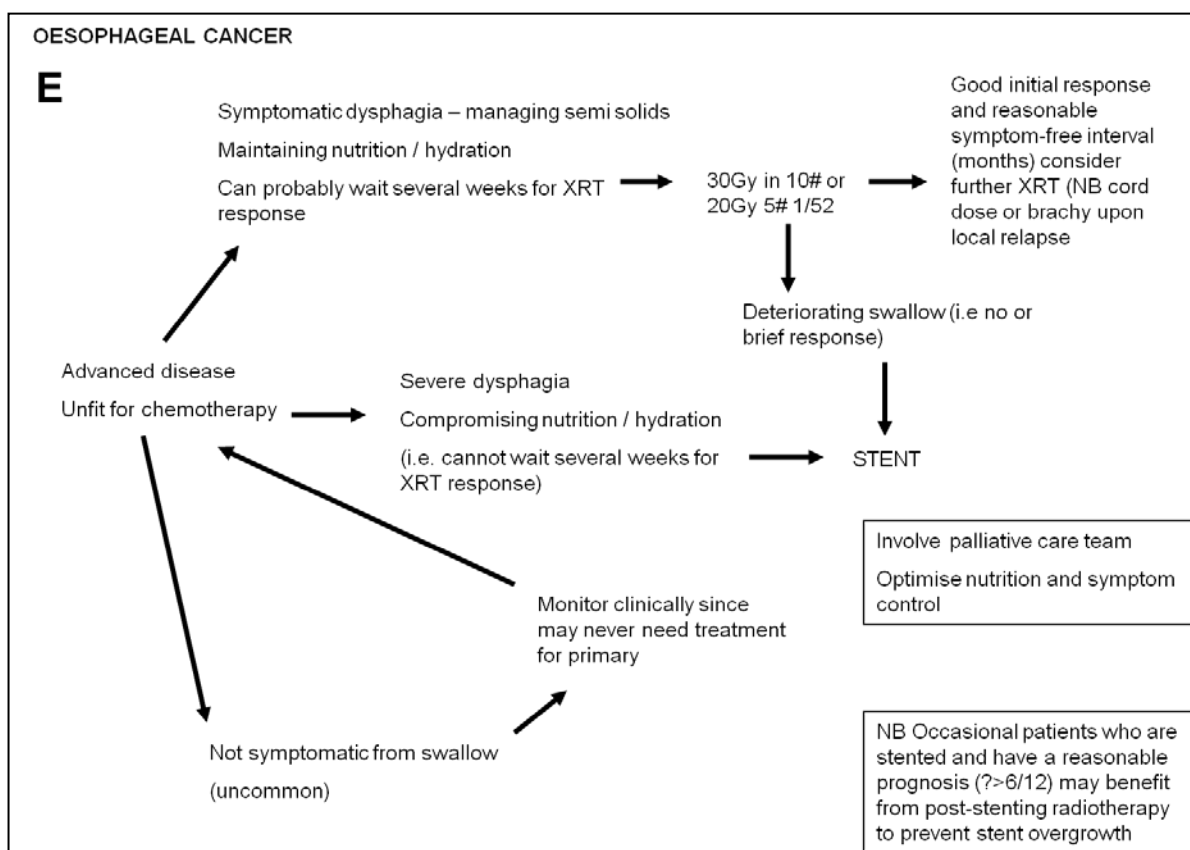
Swallowing Score

1
2
3
4
5
X

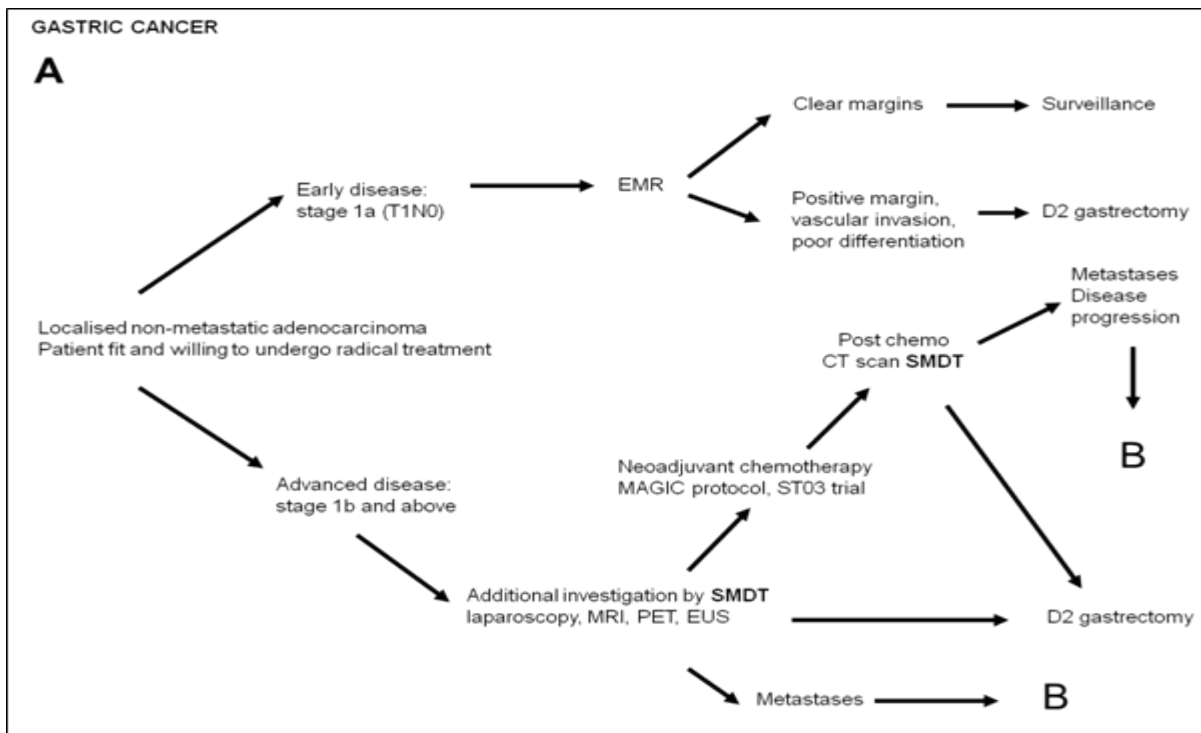
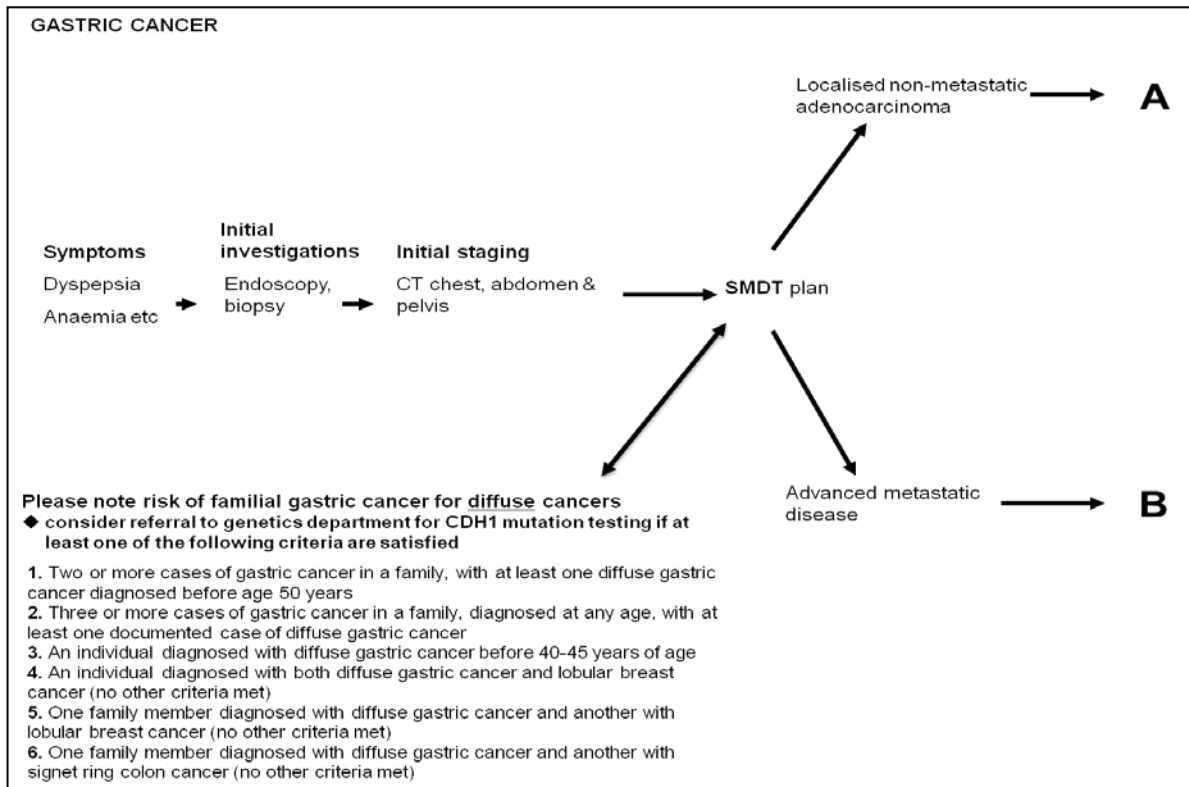
Symptoms

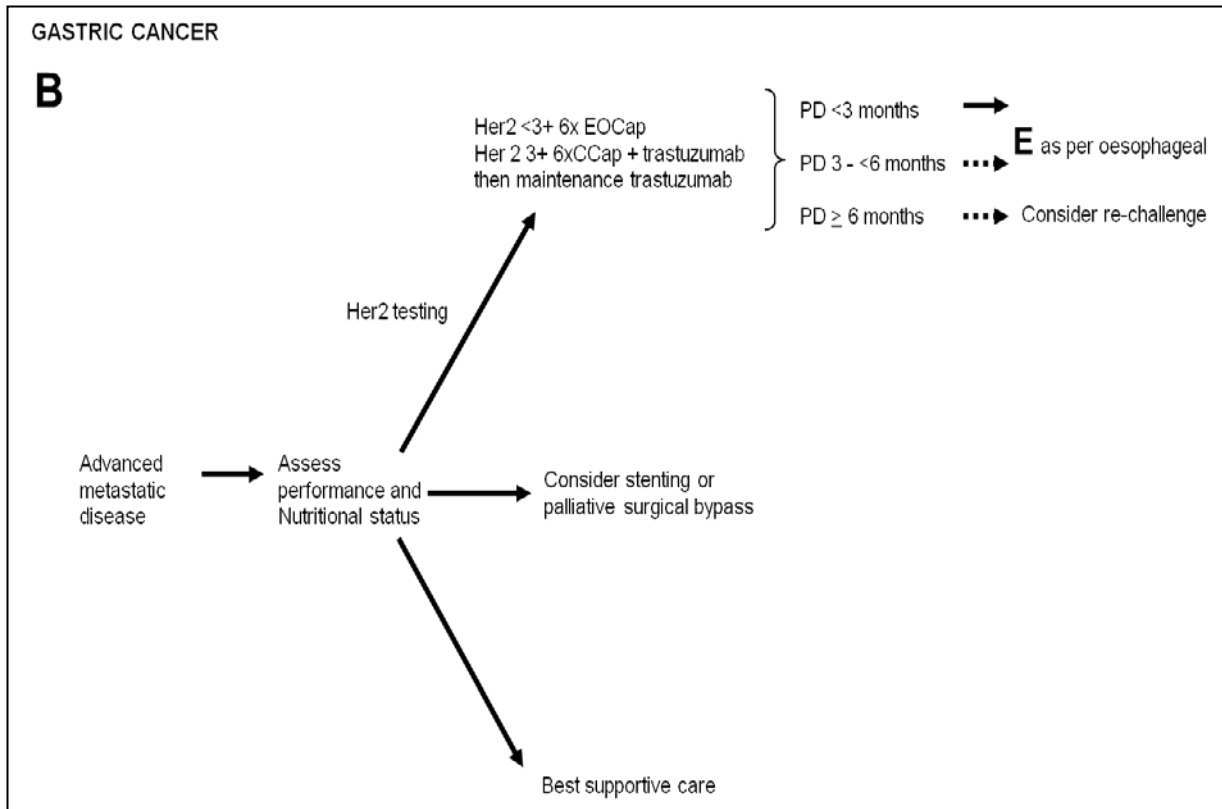
Asymptomatic
Eats solids with some dysphagia
Eats soft or pureed foods only
Drinks liquids only
No swallowing at all
Unknown

(O'Rourke et al., Cancer 1988)



2.2 Gastric Cancer



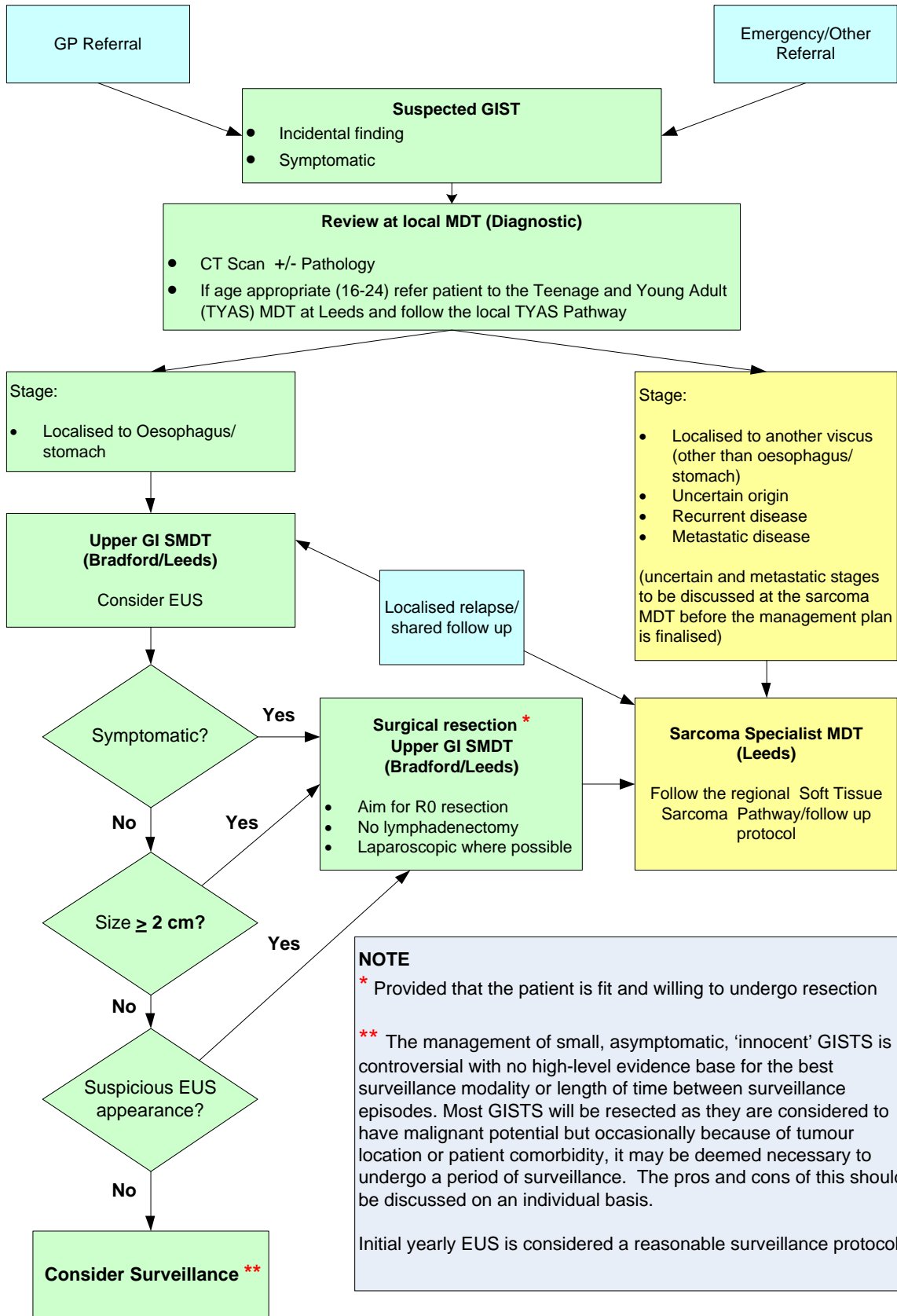


2.3 Management of Gastrointestinal Stromal Tumours (GIST)

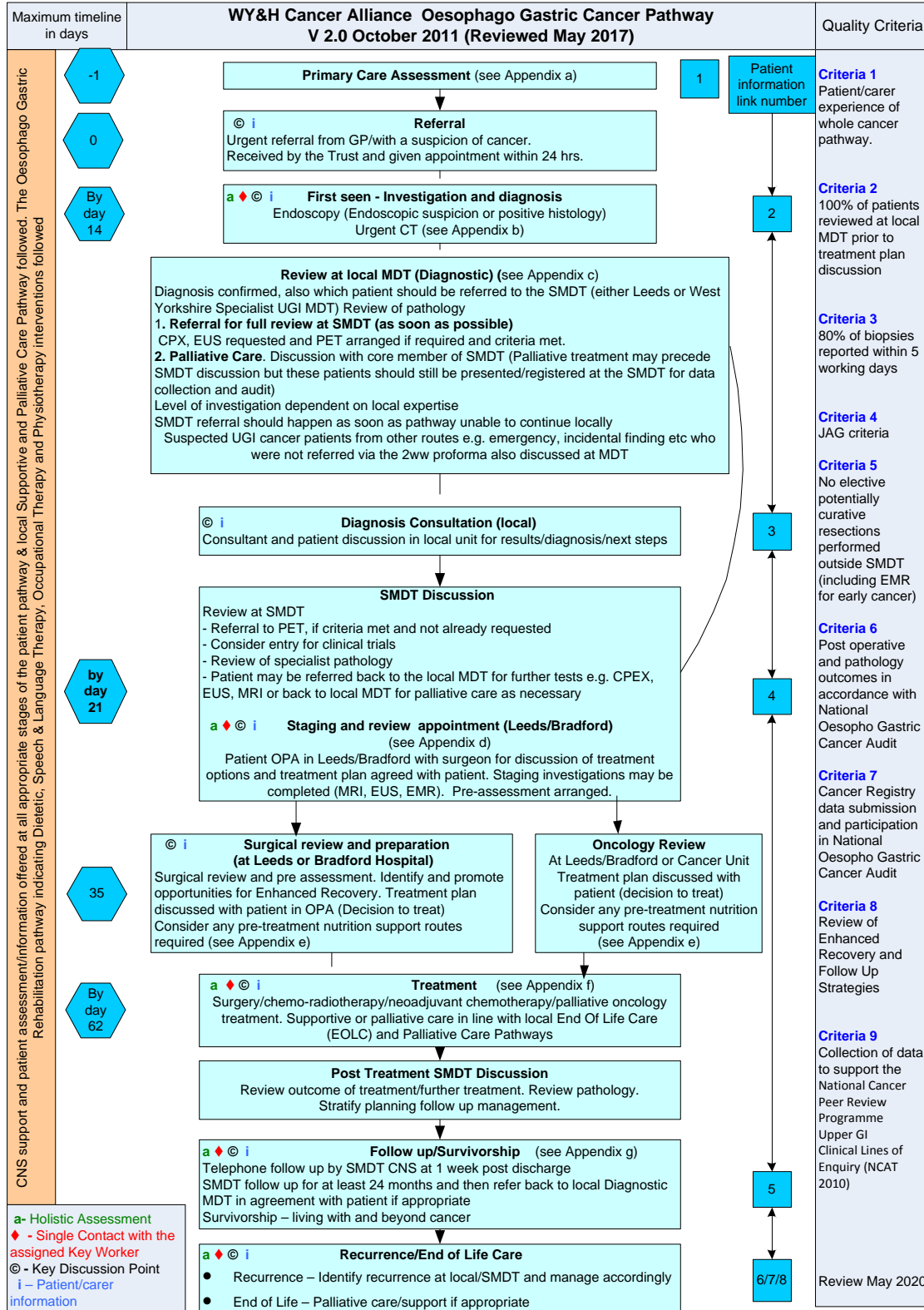
The former YCN Upper GI NSSG group in conjunction with the Sarcoma Advisory Group (SAG) developed a Gastrointestinal Stromal Pathway (GIST) for management of GIST patients across the region. (Please see pathway overleaf). The pathway was agreed by both groups and signed off by the chairs of both groups in August 2011.

A Soft Tissue Sarcoma Pathway which may be followed as part of the GIST pathway was also developed

**WY&H Cancer Alliance Gastric: Gastrointestinal Stromal Tumour (GIST) Pathway
December 2012 (Reviewed May 2017)**



3 WY&H Oesophago Gastric Cancer Clinical Pathway



APPENDIX

Oesophago Gastric Cancer Network Pathway

Title	Oesophago Gastric Cancer Network Pathway
Author & Owner	Fomer Yorkshire Cancer Network Upper Gastrointestinal (UGI) Site Specific Group

Version Control		
Version/ Draft	Date	Revision summary
1.0	January 2010	No changes
2.0	October 2011	Added text to 'Review at Local MDT', SMDT Discussion, Surgical review and preparation' 'Follow Up' and 'Survivorship/Recurrence/End of Life' stages. Added 'Oncology Review' and Post SMDT Discussion' stages. Added Pathology Reviews. Appendix updated. Quality Criteria updated. Pathway review date changed.

Pathway Details/Supporting Information

Local Diagnostic Upper Gastrointestinal MDTs	Specialist Upper Gastrointestinal MDTs
<ul style="list-style-type: none"> • Harrogate • York • Leeds • Mid Yorkshire 	<ul style="list-style-type: none"> • The Leeds Upper Gastrointestinal Specialist MDT (covering Leeds, Mid Yorkshire, Harrogate and York patients)
<ul style="list-style-type: none"> • Airedale • Bradford • Calderdale & Huddersfield 	<ul style="list-style-type: none"> • The West Yorkshire Upper Gastrointestinal Specialist MDT (covering Airedale, Bradford, Calderdale and Huddersfield patients)

The Oesophago gastric pathways are supported by generic and tumour specific information pathways and supportive and palliative care pathways. Key discussion points, contacts with the key-worker, holistic assessment points and key information points are identified by symbols along the Oesophago gastric pathways. The Oesophageal Cancer - Upper Gastrointestinal Cancers Patient Information pathway supports the steps in the Oesophago gastric pathway such as referral, diagnostic procedures and tests, diagnosis, treatments and side effects and support services. Each stage will be numbered from 1 to 8 indicating when the information might be offered. The Oesophago gastric cancer pathway is also supported by a Rehabilitation pathway which details the cancer rehabilitation interventions of Dietetics, Speech & Language Therapy, Occupational Therapy, Physiotherapy and Lymphoedema where applicable.

a) Pre-referral – GPs should establish whether the patient's signs and symptoms fulfil the criteria for urgent referral for suspected OG cancer as defined in the NICE 2005 Referral Guidelines.

An urgent referral for endoscopy or to a specialist with expertise in UGI cancer should be made for patients of any age with dyspepsia who present with any of the following

- Chronic gastrointestinal bleeding
- Dysphagia
- Progressive unintentional weight loss
- Persistent vomiting
- Iron deficiency anaemia
- Epigastric mass
- Suspicious barium meal result

In patients aged 55 years and older with unexplained and persistent recent onset dyspepsia alone, an urgent referral for endoscopy should be made.

In patients aged less than 55 years, endoscopic investigation of dyspepsia is not necessary in the absence of alarm symptoms.

In patients presenting with dysphagia an urgent referral should be made.

Helicobacter pylori status should not affect the decision to refer.

In patients without dyspepsia, but with unexplained weight loss or iron deficiency anaemia, the possibility of upper Oesophago gastric cancer should be recognised and an urgent referral considered.

In patients with persistent vomiting and weight loss in the absence of dyspepsia, Oesophago gastric should be considered and an urgent referral made.

An urgent referral should be made for patients presenting with either:

- Unexplained upper abdominal pain and weight loss, with or without back pain
- Upper abdominal mass without dyspepsia

In patients with obstructive jaundice an urgent referral should be made. An urgent ultrasound investigation may be considered if available.

- GP to discuss implications of the referral – 2ww +/- Straight to Test
- GP should ensure 2ww guidelines are followed and include specific information as requested – i.e. blood results.

b) First seen

- A minimum of six biopsies should be obtained whenever the size of the lesion permits.
- Any other visible suspicious area should be biopsied.
- The distance from the incisor teeth to the upper and lower margins of the tumour should be recorded where possible.
- The position of the tumour within the stomach should be recorded and involvement of the lesser or greater curve and the anterior or posterior wall of the stomach noted. The relationship of the tumour to the z line and the crura should also be documented.
- The position of the squamo-columnar and oesophago-gastric junctions should be recorded and whether, or not the tumour encroaches on the lower oesophagus.
- A macroscopic description of the tumour should be included.
- A photograph to assist tumour localisation should be taken if available.

Patient Assessment

For presentation at the MDT meeting a patient history and examination to assess clinical extent of disease, co-morbid disease(s) and overall fitness should be recorded. Nutritional status including dysphagia score should be undertaken

The patient will be informed of the diagnosis and introduced to the Clinical Nurse Specialist based in their locality whenever possible. Referral to a specialist Dietitian to be made if nutritional status or swallowing is compromised.

The General Practitioner will be informed that the patient has been given their diagnosis within 24 hours.

After explanation of the condition the patient's understanding will be assessed and their willingness to undergo further investigation and treatments will be recorded.

The patient will be informed that their case will be discussed by a group of health care professionals in a specialist multidisciplinary team meeting (by way of gaining implied consent to divulge their clinical details to a group of health care professionals).

CT Imaging

- Most patients will require a CT scan for staging gastric cancer and oesophageal cancer.
- The scans will be performed in the patient's locality in accordance with Yorkshire Cancer Network Imaging Guidelines.

Patients admitted as emergencies – to be completed, if required.

- Non 2ww referrals can be upgraded by consultant if suspicion of cancer
- Diagnostic and staging tests to be co-ordinated to reduce delays and the number of hospital visits, appropriate information sent to the patient
- Letter for GP, OPA arranged if required
- Non malignant diagnosis discharged back to GP or further management planned

Arranging Local Care / Palliative Care

- Palliative treatments for gastric malignancy will depend on the position of the tumour, extent of gastric involvement, patient symptoms and wishes and their overall fitness.
- Palliative gastric surgery should only be performed if no other alternative to palliating a patient's symptoms is suitable, for example, if the patient is bleeding from their gastric tumour.
- Gastric outlet obstruction should be managed by placing a gastroduodenal stent if possible or a laparoscopic gastrojejunostomy.
- Palliative chemotherapy will be delivered locally in accordance with Yorkshire Cancer Network Clinical Guidelines.
- Referrals to palliative care teams, community nursing teams, allied health care professional and social care structure should be made locally with the patient's agreement.

c) MDT discussion

The role and function of the diagnostic/Local care MDT meeting

The membership of each diagnostic / local care team for OG should include: A designated Lead Clinician; one or more clinicians specialising in gastroenterology; Endoscopists; Histopathologist; Radiologist with expertise in cross-sectional imaging and a Clinical Nurse Specialist.

The role of each diagnostic / local care team for OG Cancer is to provide a rapid diagnostic service for patients with possible or suspected OG cancer; action rapid and appropriate referrals for patients found to have cancer; liaise with primary care teams and specialist care teams as required and cooperate with Network data collection and audit. Local diagnostic MDTs serve an important function in allowing information collection and briefing of the clinician who is to take the patients to the Specialist MDT.

The diagnostic / local care team will aim to refer all their patients with OG cancer for review at a specialist MDT meeting in line with the Oesophago Gastric Cancer Network Pathway.

The role and function of the Specialist OG meeting

The two Specialist MDTs in the region are:

- The Leeds Upper Gastrointestinal Specialist MDT (covering Leeds, Mid Yorkshire, Harrogate and York patients)
- The West Yorkshire Upper Gastrointestinal Specialist MDT (covering Airedale, Bradford, Calderdale and Huddersfield patients)

The membership of the Specialist MDT meeting should include:

A designated Lead Clinician, Specialist OG Surgeons, Gastroenterologist, Radiotherapy specialist, Chemotherapy specialist, Radiologist with a sub-specialist interest in Gastro-intestinal imaging and an expertise in interventional radiology, Histopathologist, Cytopathologist, Dietitian, Clinical Nurse Specialist, Palliative Care Specialist.

The Specialist MDT will assist in creating strong and supportive links with each diagnostic / local care team.

The Specialist MDT will appoint a Lead Clinician who will take an active role in the coordination of OG cancer services provided by the Network as a whole.

The Specialist MDT will ensure robust and timely feedback to diagnostic / local care teams and will be willing to audit the established communication systems regularly.

The MDT Standard Operating Procedure contains further administrative details.

d) Further investigations/completion of staging –

- Patient meets CNS, contact details given (Key Worker) and supported through further tests / staging

- Referrals for Endoscopic Ultrasound Investigations (EUS) can be generated on the basis of the local CT imaging report and clinical examination. The Centre will then offer a provisional date for EUS and this decision can be confirmed at the West Yorkshire UGI MDT. This will assist the patients' pathway and facilitate achieving the 62 day target.
- Patients may be offered an out-patients appointment if necessary, but if further diagnostic tests are required, such as laparoscopy, if the patient is agreeable they will be invited to attend the ward for their first intervention at the Cancer Centre.

MRI

- When MRI is required for further staging, this should take place according to local UGI Imaging Guidelines.

Staging Laparoscopy

- Many patients who are planned for gastric surgery will require a staging laparoscopy.
- This investigation will be performed by the UGI Specialist Teams. The surgeon will perform this clinical investigation in accordance with the Yorkshire Cancer Network Upper GI Clinical Guidelines.

Endoscopic Ultrasound

- An EUS may be recommended to assess the T and N stage of the tumour and in addition will assess the extent of any oesophageal involvement

PET scanning

Most patients who have potentially curable oesophageal cancer and who are fit for radical treatment should have a PET scan. This decision is to be taken at the specialist UGI MDT and appropriate arrangements made.

e) Decision to Treat/Best Supportive Care

- Patient seen to discuss their treatment options supported by the UGI / oncology CNS.
- If age appropriate (aged between 16-24 years) refer patient to the Teenage and Young Adult Unit (TYAS) at Leeds and follow the former HYCCN & YCN Teenage and Young Adult with cancer pathway
- Treatment will be in accordance with the Yorkshire Cancer Network Upper GI Clinical Guidelines.
- Patients referred for specialist Dietetic assessment if nutritionally compromised or if nutritional compromise anticipated as a consequence of proposed intervention.

f) First definitive treatment

- Curative surgical treatment for all advanced tumours will depend on the site and size of the lesion.

- Patients will be assessed clinically and in cases where it is recommended patients will be offered the option of neo-adjuvant chemotherapy. There are currently several trials relating to neoadjuvant therapy for oesophageal and gastric cancer and patients should be considered for entry into one of these.
- A record of consultation available if required, specific information and holistic assessment carried out
- Surgery date given (Identify opportunities for Enhanced Recovery surgical pathway). Pre-treatment assessment arranged or Radiotherapy / Chemotherapy planning starts.
- Chemo/Radiotherapy CNS meets patient at pre-treatment clinic and provides specific patient information, key worker contact details & 24 hour telephone number.
- Holistic assessment undertaken
- Rehabilitation needs assessed including referral to a specialist Dietitian if nutritional status or swallowing compromised.
- Referral to Specialist Palliative team as appropriate (palliative care representative at the MDT meeting)
- Participation in clinical trials encouraged
- Best supportive and rehabilitative care needs assessed

g) Follow up/Survivorship – Discharge

- The patient's follow-up care will be dependant on their clinical needs and choice.
- If patient has received chemotherapy/radiotherapy Chemo/Radiotherapy CNS will provide discharge letter and post treatment telephone support/management of acute toxicity.
- The team (Surgical or NSO) will review its follow-up service to ensure it remains effective and responsive.

3.1 Patient Information

Clinical teams offer all newly diagnosed cancer patients information specific to their site, treatment and relevant to their individual need. Patients can also access NHS choices for an information prescription and clinical teams will offer help to do this, if required.

4 Guidelines for the examination and reporting of Upper GI cancer specimens

These guidelines were agreed on behalf of the former YCN Pathology Group in collaboration with the former YCN Upper GI Site Specific Group and the Upper GI MDT Lead Clinicians in each Trust in the region.

Published: January 2005

Revised May 2012

4.1 Introduction

These guidelines for the examination and reporting of upper GI cancer specimens are supplementary to the following national guidance:

- Dataset for gastric and oesophageal cancer histopathology reports issued by the Royal College of Pathologists.

All upper GI cancer cases should be reviewed locally by an Upper GI Cancer multidisciplinary team which has a histopathologist as a core member. There should be a nominated Lead upper GI pathologist for the service. All pathologists reporting upper GI cancer specimens should participate in local audit and the national GI EQA scheme (including an assessment of consistency of reporting, as appropriate to the site). If there is a significant discrepancy with the clinical/radiological findings, the pathological material from diagnostic upper GI specimens should be reviewed, if possible by a second pathologist with an interest in upper GI cancer.

All biopsy diagnoses of squamous or glandular dysplasia should be reviewed by at least one other pathologist with a GI interest before report authorisation. Their name will normally be included in the report as a reviewing pathologist. Where further treatment is being considered e.g. radical surgery, EMR, PDT etc the case should be reviewed at a MDT meeting.

Specimens should be reported to an agreed timeframe to allow appropriate clinical decision making at a planned upper GI MDT meeting.

There is no need for routine review of diagnoses of carcinoma made outside the cancer centre (specialist MDT) when the patient is referred to the cancer centre for further treatment. Individual cases may be reviewed at the request of the responsible clinician, reporting histopathologist or as the result of discussion at the MDT.

Cases which should be reviewed by the central MDT include external diagnoses of dysplasia where further treatment is considered, unusual tumours and cases where there is a significant discrepancy with the clinical/radiological findings.

4.2 Specimen Types

Diagnostic

Oesophageal and gastric biopsies

Needle core biopsies (abdominal masses or liver metastases)

Endoscopic ultrasound guided needle core biopsies and fine needle aspirates

Therapeutic

Oesophagectomy

Gastro-oesophagectomy

Gastrectomy

Endoscopic resection

4.3 Specimen Examination

Each pathology service should establish a defined protocol for each type of diagnostic and therapeutic upper GI specimen type received by the laboratory, taking into account the above guidance. The protocols should be regularly reviewed and updated by the Lead upper GI pathologist in consultation with other pathologists who participate in service delivery.

Where appropriate protocols should include a code for specimen orientation as agreed with the local upper GI surgical team.

Upper GI tissue should only be removed and stored for the purposes of research if it is surplus to the requirements of the diagnostic process. Appropriate patient consent and ethical approval should be obtained.

4.4 Minimum Dataset for Reporting of gastric and oesophageal cancers

Diagnostic specimens

For upper GI biopsies:

- Tumour type
- Presence of associated epithelial dysplasia when identified
- Assessment of minimum depth of invasion i.e. mucosal or submucosal
- Presence of lymphovascular invasion when identified

Therapeutic resections:

Relevant RCPATH Dataset with local modifications

Specimen type

Length of specimen

Site of tumour

Distance of tumour centre to the gastro-oesophageal junction OR Siewert type

Macroscopic appearance of tumour

Dimensions of tumour

Distance to margins

Invasive tumour type

Invasive tumour grade of differentiation by worst differentiation

Character of the invasive margin i.e. Expansile or Infiltrative

Depth of invasion

Serosal involvement

Blood vessel and/or lymphatic vessel invasion

Number regional lymph nodes examined
Number of involved regional lymph nodes
Number and site(s) of distant (non-regional) lymph nodes submitted and number involved (M1)
Distance to circumferential margin and status of this margin (<1mm regarded as involved)
Distance to and status of proximal and distal margins
Other relevant pathology (Barrett's or intestinal metaplasia, background dysplasia, chronic gastritis, H pylori status etc)
UICC TMN staging system 7th ed.
Whether resection complete (use R classification from TNM system)
Tumour regression grading for post-chemotherapy or chemoradiation specimens (for example Mandard regression grading, other grading systems also acceptable until new edition of RCPATH published)

The dataset items may be reported in a proforma either within or instead of the free text part of the pathology report, or recorded as a separate proforma. Trusts and MDTs should work towards recording and storing the dataset items as individually categorised items in a relational database, so as to allow electronic retrieval and to facilitate the use of pathology data in clinical audit, service planning and monitoring, research and quality assurance.

Laboratories should use an agreed diagnostic coding system (eg. SNOMED). All malignancies must be reported to the Northern and Yorkshire Cancer Registry, in accordance with the service level agreement with their host Trust.

4.5 Grading and Staging Conventions

Dysplasia grading
Revised Vienna classification of gastrointestinal epithelial neoplasia

Tumour grading:
WHO invasive carcinoma grading system
(Based on highest grade in accordance with RCPATH datasets; Note that WHO grading only applies to tubular and papillary type (e.g. intestinal type) cancers; poorly cohesive cancers (diffuse type) including signet ring type cancers are not graded. No grading after chemo(radio)therapy.)

Tumour staging:
UICC TNM classification of malignant tumours (currently RCPATH recommends 7th edition for oesophageal and gastric tumours). Note that there is a difference between the AJCC and the UICC TNM classification 7th ed for oesophageal cancer.

Next edition of the RCPATH dataset for gastric and oesophageal cancer pending.

4.6 Use of Ancillary Laboratory Techniques

All laboratories providing a Pathology service in the network must have at least conditional laboratory (eg CPA) accreditation and ensure participation an appropriate external quality assurance programme which demonstrates satisfactory laboratory performance.

Immunohistochemical procedures which may be of value include the following:

Diagnostic scenario

1. Intra-abdominal malignancy ? primary

> see IHC panel recommended by NICE clinical guideline CG104: Metastatic malignant disease of unknown primary origin

2. Neuroendocrine differentiation?

> see RCPATH dataset for gastrointestinal neuroendocrine tumours for recommended IHC marker

3. GIST

> see RCPATH dataset for GIST for recommended IHC marker

4. metastatic gastro-oesophageal adenocarcinoma

> HER2 testing in a specialist reference centre upon request from the MDT/oncologist

4.7 Audit

All pathologists reporting upper GI cancer specimens should participate in a relevant EQA scheme and in local audit (including an assessment of consistency where more than one pathologist participates in service provision).

Audit may take the form of

- review of compliance with procedures for specimen examination and reporting
- completeness of datasets
- systematic logging of diagnostic agreement/disagreement during review of cases for MDTMs
- review of diagnostic consistency between pathologists using data from cases in EQA circulations or blind circulations.

The results of the audit process should be discussed with all pathologists who participate in service delivery and used to inform the development of reporting protocols.

4.8 Referral for Review or Specialist Opinion

4.8.1 Referral for Treatment

All patients referred for treatment at a hospital within the West Yorkshire & Harrogate Cancer Alliance following diagnosis elsewhere must be reviewed and discussed at the treating hospital's multidisciplinary team meeting (MDTM).

The complete diagnostic pathology report must be available at the MDTM, and when appropriate, the histological/cytological material should be reviewed prior to the meeting. This is particularly important if there is a significant discrepancy with the clinical/radiological

findings. Pathological material should be requested at least 5 working days before and received at least 3 working days before the relevant MDTM to allow sufficient time for review.

A formal report should be issued by the reviewing pathologist to the clinician or pathologist initiating the referral. The report of the reviewing pathologist should also be sent to the original pathologist and the clinician responsible for the patient's care at the treating hospital, when they are not responsible for initiating the referral.

Where patients have been referred for oncology treatment, requests for specialist biomarker studies will be co-ordinated between the treating oncology service, their local pathology service and the referring hospital's pathology service, as appropriate. The oncology service must agree a mechanism for requesting tests and the relevant pathological material with their local pathology service. Requests for pathological material should be made in good time to ensure that results are available at the MDTM where the patient is to be discussed.

4.8.2 Referral for Specialist Opinion

In cases of diagnostic difficulty, referral will usually be made to the lead pathologist of the relevant specialist MDT in the network, although referral to other specialists within or outwith the network may be appropriate in individual cases. Cases referred for individual specialist or second opinion will be dealt with by the individual pathologist and a report issued by them. Where relevant, tissue blocks should be made available to allow any further investigations that are deemed appropriate. The result of the review should be communicated to the referring pathologist by letter and also by fax/telephone as appropriate.

In instances when the patient is referred for an opinion by a specialist multidisciplinary team the case should be referred to the Lead Pathologist of the appropriate MDT and dealt with according to specialist team/Cancer centre MDT guidelines.

There is no need for routine review of internal diagnoses of carcinoma although this is expected to happen in most cases in the course of the MDT meeting.

There is no need for routine review of diagnoses of carcinoma made outside the Cancer Centre (specialist MDT) when the patient is referred to an oncologist/surgeon at the Cancer centre for further treatment. Individual cases may be reviewed at the request of the responsible clinician.

External diagnoses of dysplasia where further treatment is being considered eg. radical surgery, EMR, PDT etc should be reviewed at an MDT meeting and the diagnosis confirmed by at least two GI pathologists.

Unusual tumours e.g. lymphoma, melanoma, carcinoid, small cell carcinoma, GIST should be reviewed in the course of an MDT meeting. All suspected upper GI lymphomas should be referred to the Haematological Malignancy Diagnostic Service for phenotypic analysis and confirmation of diagnosis.

Internal review of cases reported in the Cancer centre does not require the issue of another report unless a correction/modification or addition is needed. This should only be done with the knowledge and agreement of the original reporting pathologist.

Review of material from outside the Cancer centre should lead to a formal report by the reviewing pathologist to the clinician or pathologist initiating the referral. The report of the reviewing pathologist should also be sent to the original pathologist and the clinician responsible for the patient's care at the treating hospital, when they are not responsible for initiating the referral.

4.9 References

Minimum dataset for oesophageal cancer histopathology reports.

1. The Royal College of Pathologists (2007)
2. Minimum dataset for gastric cancer histopathology reports. The Royal College of Pathologists (2007)
3. TNM Classification of Malignant Tumours (7th edition). Sobin LH and Wittekind C (Eds). UICC (2009)
4. WHO Classification of Tumours. Tumours of the digestive system (2010)
5. Diagnostic criteria for gastrointestinal carcinomas in Japan and Western countries: proposal for a new classification system of gastrointestinal epithelial neoplasia. Schlemper R J, Kato Y, Stolte M. J Gastroenterol Hepatol 2000;15(suppl):G49-57
6. Gastrointestinal epithelial neoplasia: Vienna revisited. Dixon M F Gut 002;51:130-131
7. Guidelines on inter-departmental dispatch of samples from patients sent to another hospital or centre for assessment and/or treatment. The Royal College of Pathologists (2004)

These guidelines were drafted by Dr R Calvert in consultation with the locality lead pathologists. They were agreed by the local UGI MDT teams in January 2005. The guidelines were revised by Dr Richard Calvert and Dr A Cairns in June 2009 and by Dr H Grabsch in March 2012.

5 Radiology Guidelines for Upper GI

5.1 Oesophago-Gastric Cancer Diagnosis

The primary investigation is either endoscopy or barium examination, but flexible endoscopy and biopsy are essential to confirm the diagnosis.

5.1.1 TNM Classification of Oesophageal Cancer

Classification	Oesophageal Cancer
T1	Lamina propria, submucosa
T2	Muscularis propria
T3	Adventitia
T4	Adjacent structures
N1	Regional
M1	Distant metastasis
Tumour of upper thoracic oesophagus	
M1a	Cervical nodes
M1b	Other distant metastasis
Tumour of mid thoracic oesophagus	
M1b	Distant metastasis including non-regional lymph nodes
Tumour of lower thoracic oesophagus	
M1a	Coeliac nodes
M1b	Other distant metastasis

5.1.2 Oesophago-Gastric Cancer Staging – Objectives

- To define tumour position and estimate the proximal and distal extent of the tumour and length of tumour.
- To identify local invasion, particularly with respect to the trachea, main bronchi, aorta, pericardium, pleura, diaphragmatic hiatus and crura.
- To identify lymph node enlargement, particularly peri-oesophageal, mediastinal and peri-gastric regions.
- To identify metastases in retroperitoneal lymph nodes, in the liver and peritoneal cavity.
- To determine the degree of oesophageal obstruction and to identify the presence of complications such as localised perforation or fistulation.

5.1.3 CT

CT of the thorax, abdomen and pelvis is the primary imaging investigation. The pelvis is imaged to exclude a Krukenberg tumour.

5.1.4 CT Technique

- 600-800mls of water should be administered orally, ± carbex, to dilate the oesophagus and stomach and allow determination of tumour position in relation to the oesophago-gastric junction and cardia.
- 100-150 ml of iodinated intravenous contrast medium is injected at 3-4 ml/sec.
- MDCT is commenced at 20-25 seconds (chest) and 70-80 seconds (abdomen and pelvis) post-injection.
- Using MDCT, slice thickness will depend on scanner capability. In general, sections are acquired at 1.25-2.5 mm and reformatted at 5 mm for viewing.
- Occasionally prone scanning may be performed in order to exclude invasion of aortic adventitia or look at involvement of the GOJ.

5.1.5 Staging of Oesophageal Carcinoma

- In terms of T-staging, CT is more likely to under-stage than over-stage.
- CT is unable to differentiate T1 disease from T2, and is unable to detect microscopic invasion of T3 tumours.
- Care must be taken using CT in terms of differentiating microscopic tumour from tumour which is focally “bulging” the wall.
- T4 disease is suggested by invasion of the aorta, tracheobronchial tree or crura.
- The only criteria on CT for assessment of nodal disease is size but CT is a poor predictor for nodal involvement.
 - Accuracy of mediastinal node involvement is between 38 and 70%
 - For coeliac axis nodes greater than 8 mm, there is a CT sensitivity of 48% and a specificity of 93%
- In terms of M staging of oesophageal cancer, Quint et al (Cancer 1995), reviewed 838 newly diagnosed patients with oesophageal cancer and found that 18% had metastases at presentation. All patients with bone and brain metastases had metastases in the abdomen and thorax. Therefore, it is not routinely indicated to perform brain or bone scanning in the absence of relevant symptoms or signs.

5.1.6 EUS

Where there is no evidence for metastatic disease on CT, further localized T and N staging should be obtained by endoscopic ultrasound using a combination of radial and linear echoendoscopes, and blind probes as necessary. EUS is superior to CT for local staging and is more accurate in predicting resectability.

5.1.7 Notes on EUS Staging

- Non-traversable tumours are highly likely to be T3 or higher.
- EUS has a tendency to over-stage oesophageal tumours due to peri-tumoural inflammation or to under-stage due to microscopic invasion. It is widely accepted that EUS is less accurate for staging of squamous cell carcinoma than adenocarcinoma.
- In terms of endoscopic ultrasound, nodal staging of oesophageal tumours, lymph nodes are more likely to be malignant if they possess all four features of:
 1. Well-defined margins
 2. Greater than 1 cm in diameter
 3. Rounded in appearance
 4. Uniformly hypoechoic

However, all four features are present in only 20% of malignant nodes.

5.2 Staging of Gastric Cancer

The primary investigation is either endoscopy or barium examination, but flexible endoscopy and biopsy are essential to confirm the diagnosis.

5.2.1 TNM Classification of Gastric Cancer (version 7)

Classification	Gastric Cancer
T1	Lamina propria, submucosa
T2	Muscularis propria
T3	Adventitia
T4	Adjacent structures
N1	1-2 Regional
N2	3-6 Regional
N3	7 + Regional
M1	Distant metastasis

5.2.2 Gastric Cancer Staging – Objectives

- To identify metastatic disease in the liver and peritoneum, including ovarian deposits.
- To determine the proportion of stomach involved by tumour to assist with decision making with regard to the extent of surgery to be performed.
- To identify the presence or absence of peritoneal nodules and nodal enlargement (peri-gastric, coeliac axis nodes versus metastatic nodal disease in the retroperitoneum).
- In terms of nodal staging, the TNM Classification highlights the importance of the “number” of nodes rather than the “distance of nodes from primary tumour”.
- To document the degree of outflow obstruction in order to guide the clinical management of obstructive symptoms.

5.2.3 CT

CT of the thorax, abdomen and pelvis is the primary imaging investigation.

5.2.4 CT Technique

- 1 litre of water should be orally administered as a contrast agent, of which 400 ml is to be drunk immediately prior to going onto the scanner. Carbex should also be administered to optimise gastric distension.
- MDCT is commenced at 20-25 seconds (chest) and 70-80 seconds (abdomen and pelvis) post-injection.
- Using MDCT, slice thickness will depend on scanner capability. In general, sections are acquired at 1.25-2.5 mm and reformatted at 5 mm for viewing.
- Occasionally prone scanning may be performed in order to preferentially distend the fundus.

5.2.5 Notes on CT Staging

- CT cannot differentiate T1 from T2 tumours.

- T3 tumours are suggested by stranding into the peri-gastric fat.
- T4 tumours are suggested by there being direct contact between the tumour and contiguous organs, loss of fat plane or direct invasion.

5.2.6 EUS Staging

- EUS is superior to CT for local staging. It is, however, widely accepted that EUS staging of tumours at the cardia is poor.
- EUS can identify T1 tumours for submucosal resection, and T4 tumours may be identified by their “fixity”.
- The above described issues regarding nodal staging of the oesophagus also apply to nodal staging of gastric cancer.

5.3 Additional Staging Investigations of Oesophageal and Gastric Cancer

5.3.1 Ultrasound & MRI

- Performed as indicated as problem-solving modalities.

5.3.2 Bronchoscopy

- Not routinely offered

5.3.3 Laparoscopy

- Routinely prior to radical resection in subdiaphragmatic tumours (gastric cancer or junctional tumours with a gastric component).
- If there is suspicion of peritoneal spread on CT or endoscopic ultrasound.

5.3.4 18F FDG PET-CT

Oesophagus

- Currently there are no NICE guidelines for the routine use of PET-CT in the management of oesophageal cancer.
- Oesophageal carcinoma is usually FDG avid, and PET-CT is helpful to delineate the cranio-caudal extent of disease, as well as detecting local and distant nodal disease and metastases. There is uptake in 95-100% of large tumours but this falls to 43% for T1 and in situ disease. Local node staging is better performed by EUS (Sensitivity 81% compared to 33% for PET). Regional and distant nodal involvement; PET has similar accuracy to combined EUS and CT. Metastatic disease is present in up to 30% of patients with oesophageal cancer at diagnosis. PET can detect unexpected metastatic disease in 5-28% of patients with oesophageal cancer. Correct upstaging in 20%, and down-staging in 5% (Heeren P, et al. J Nucl Med 2004;45:980-987).
- PET-CT has an important role in the initial staging of oesophageal cancer, and should be considered the standard of care in cases considered suitable for radical treatment.
- Other accepted indications are for problem solving in suspected disease recurrence, and in the assessment of disease response. This role will evolve as locally advanced disease is increasingly subjected to neo-adjuvant CRT for down-staging, and assessment of metabolic response is required. Ott K et al. Metabolic imaging predicts response, survival, and recurrence in adenocarcinomas of the esophagogastric junction. J Clin Oncol 2006

Gastric

- PET-CT has only a modest accuracy in gastric cancer (Approximately 70% sensitivity and specificity), but may show low or absent FDG uptake in non-intestinal, signet ring and mucinous cell types, or in tumours with a diffuse growth pattern.
- The role of PET-CT is for occasional problem solving rather than a routine indication.

5.4 Oesophago-Gastric Cancer Follow Up

Follow-up imaging is not performed routinely. Symptomatic patients should be investigated with the appropriate modality

6 Palliative & End of Life Care

6.1 Definitions

This section has been updated in May 2017

Palliative care is part of supportive care. It embraces many elements of supportive care.

Palliative & End of life care is care that helps all those with advanced, progressive, incurable illness to live as well as possible until they die. It enables the supportive and palliative care needs of both patient and family to be identified and met throughout the last year(s) of life and into bereavement. It includes management of pain and other symptoms and provision of psychological, social, spiritual and practical support.

The Department of Health (2008) definition of end of life care states that it includes:

- Adults with advanced, progressive, incurable illness (e.g. advanced cancer, heart failure, COPD, stroke, chronic neurological conditions, dementia);
- Care given in all settings (e.g. home, acute hospital, ambulance, residential/nursing care home, hospice, community hospital, prison);
- Care given in the last year(s) of life
- Patients, carers and family members (including bereavement care).

End of Life Strategy, Department of Health 2008
National Council for Palliative Care Services 2006

6.2 Who Provides Palliative / End of Life Care?

Palliative / end of life care is provided by two distinct categories of health and social care professionals:

- All health care and social care professionals providing the day-to-day care to patients and carers in any care setting
- Those who specialize in palliative care (consultants in palliative medicine and clinical nurse specialists in palliative care, for example) who care for palliative care patients who have complex needs

Those providing day-to-day care should be able to:

- Assess the care needs of each patient and their families across the domains of physical, psychological, social spiritual and information needs
- Meet those needs within the limits of their knowledge, skills, competence in palliative care
- Know when to seek advice from or refer to specialist palliative care services

Training and education in the skills required for palliative / end of life care should be available to and undertaken by all health and social care professionals.

The national strategy *Ambitions for Palliative and End of Life Care 2015-2020* sets out the vision to improve end of life care through partnership and collaborative action between organisations at local level throughout England.

More information can be found at: <http://endoflifecareambitions.org.uk/>

For more information about local improvements, frameworks, tools to support best practice please contact your local End of Life Care Lead or Specialist Palliative Care Team.

One aspect of care is to discuss with individuals, if they wish, their preferences regarding the type of care they would wish to receive and where they wish to be cared for in case they lose capacity or are unable to express a preference in the future. This is the process of Advance Care Planning (ACP).

An ACP discussion might include:

- the individual's concerns and wishes,
- their important values or personal goals for care,
- their understanding about their illness and prognosis,
- their preferences and wishes for types of care or treatment that may be beneficial in the future and the availability of these.

Such discussions can also inform shared decision-making regarding treatments with palliative intent. Local arrangements for recording this information for each individual patient will differ. Many services are developing/have developed Electronic Palliative Care Co-ordination Systems (EPaCCS) where by this information can be shared across professionals and settings (e.g on SystmOne). Contact your local specialist palliative care team for more information.

6.3 Specialist Palliative Care

Is provided by specialist multidisciplinary palliative care teams in services or units whose core specialty is palliative care (for example hospices, community or hospital palliative care teams). The specialist teams should include palliative medicine consultants and palliative care nurse specialists together with a range of expertise provided by physiotherapists, occupational therapists, dieticians, pharmacists, social workers and those able to give spiritual and psychological support.

Eligibility for referral to specialist palliative care services is based on patient need not diagnosis. The agreed criteria for referral are as follows:

1. The patient has active, progressive and usually advanced disease for which the prognosis is limited (although it may be several years) and the focus of care is quality of life.
2. The patient has unresolved complex needs that cannot be met by the caring team, for example:
 - Uncontrolled or complicated symptoms (e.g. symptoms not adequately controlled within 48 hours by the referring team, or sooner if causing overwhelming distress).
 - Complex psychological/emotional difficulties.
 - Complex social or family issues.
 - Difficult decision making about appropriate future care.

Patients fulfilling these criteria should be referred to and assessed by a member of the specialist palliative care team.

The subsequent care package will be dependent on this assessment and should be made in agreement with the patient, carer(s) and referring team. It is not appropriate for specialist palliative care services to be committed to patients by professionals outside these services. Equally, specialist services should ensure that the assessment process is accessible and responsive to patients in need.

The level of specialist palliative care support required may fluctuate. Shared care of patients between the specialist palliative care professionals and the referring team (for hospital patients) or the primary care team (for patients at home / care home) is usually appropriate. Timely and effective communication is essential in these situations. For these patients advice from specialist palliative care services on a 24 hour basis should be available in all care settings.

Sometimes the specialist palliative care consultant and team may take the lead role in patient care, usually in a specialist in-patient unit (hospice) or designated specialist palliative care beds.

Referral systems for specialist palliative care services vary in different areas. They should be clear to all local referring consultants and primary care teams.

6.4 Further Links and Information

Contact the local Specialist Palliative Care Team for further information

6.5 Directory of West Yorkshire & Harrogate Cancer Alliance Specialist Palliative Care Services

The Directory has been checked and updated in May 2017

Bradford, Airedale, Wharfedale and Craven
 Bradford Teaching Hospitals NHS Foundation Trust
 Airedale NHS Foundation Trust
 NHS Bradford, Airedale, Wharfedale and Craven
 Website: www.palliativecare.bradford.nhs.uk

Airedale General Hospital Palliative Care Team	Tel	01535 292184 01535 295016
	Fax	01535 295036
Sue Ryder Care – Manorlands Hospice (Oxenhope)	Tel	01535 642308
	Fax	01535 642902
Bradford Teaching Hospitals Palliative Care Team	Tel	01274 364035
	Fax	01274 366851
Bradford Community Palliative Care Team	Tel	01274 323511
	Fax	01274 215660
Marie Cure Hospice (Bradford)	Tel	01274 337000
	Fax	01274 337095
Out of Hours Advice via on-call Palliative Medicine Consultant via Marie Curie Hospice / Manorlands Hospice	Tel	01274 337000
	Tel	01535 642308

Calderdale and Huddersfield

Calderdale & Huddersfield NHS Foundation Trust

NHS Calderdale

NHS Kirklees

Web: <http://www.cht.nhs.uk/services/clinical-services/palliative-and-end-of-life-care/specialist-palliative-care/>

Calderdale Royal Hospital & Huddersfield Royal Infirmary Palliative Care Team	Tel	01484 342965
	Fax	none
Calderdale Community Palliative Care Team Left message to confirm fax	Tel	01422 310874
	Fax	01422 378425
Overgate Hospice	Tel	01422 379151
	Fax	01422 384210
Kirkwood Hospice and Community Palliative Care Team	Tel	01484 557906
	Fax	01484 557918
Out of Hours Advice via Hospices	Tel	01422 379151 01484 557900

Harrogate and District

Harrogate NHS Foundation Trust

NHS North Yorkshire and York

Website: [https:// https://www.hdft.nhs.uk/services/palliative-care/](https://www.hdft.nhs.uk/services/palliative-care/)

Harrogate Hospital and Community Palliative Care Team	Tel	01423 553464
	Fax	01423 555763
St Michael's Hospice	Tel	01423 872658
	Fax	01423 815454
Out of Hours Advice via Hospice	Tel	01423 879687

Leeds**Leeds Palliative Care**Website: www.leedspalliativecare.co.uk

Leeds Teaching Hospitals NHS Trust Specialist Palliative Care Team	Tel	0113 2064563
	Fax	0113 2064863
Sue Ryder Care - Wheatfields Hospice and Community Palliative Care Team (West Leeds)	Tel	0113 2787249
	Fax	0113 2302778
St Gemma's Hospice and Community Palliative Care Team (East Leeds)	Tel	0113 2185500
	Fax	0113 2185524
Out of Hours Advice via SJUH Switchboard	Tel	0113 2433144

Mid Yorkshire

Mid Yorkshire Hospitals NHS Trust

NHS Wakefield District

Kirklees PCT

Website: <https://www.midyorks.nhs.uk/palliative-care1>

Dewsbury Hospital and Community Palliative Care Team	Tel	01924 816052
	Fax	01924 543883
Dewsbury Day Support and Drop-in (Rosewood Centre)	Tel	01924 512039
Mid Yorkshire Hospitals NHS Trust Palliative Care Team	Tel	01924 543801
	Fax	01924 543883
Pontefract Community Palliative Care Team (Prince of Wales Hospice)	Tel	01977 781456
	Fax	01977 796209
Prince of Wales Hospice (Pontefract)	Tel	01977 708 868
	Fax	01977 600097
Wakefield Hospice	Tel	01924 331400
	Fax	01924 362769
Out of Hours Advice via Pinderfields Hospital Switchboard	Tel	01924 541000

York

York Hospitals NHS Foundation Trust

NHS North Yorkshire and York

https://www.yorkhospitals.nhs.uk/our_services/az_of_services/palliative_care/

York Hospital Palliative Care Team both correct	Tel	01904 725835
	Fax	01904 726440
Community Palliative Care Team	Tel	01904 724476
	Fax	01904 777049
St Leonard's Hospice	Tel	01904 708553
	Fax	01904 704337
Out of Hours Advice via Hospice	Tel	01904 708553

7 Appendices

7.1 Summary of recommendations guidelines for the management of oesophageal and gastric cancer

7.1.1. Prevention

- There is no established chemoprevention role for upper gastrointestinal (UGI) cancer, and trials are currently assessing this (grade C).
- The role of surveillance endoscopy for Barrett's oesophagus or endoscopy for symptoms remains unclear, and trials are currently assessing this (grade B).

7.1.2. Diagnosis

- All patients with recent-onset 'dyspepsia' over the age of 55 years and all patients with alarm symptoms (whatever their age) should be referred for rapid access endoscopy with biopsy (Grade C).
- A minimum of six biopsies should be taken to achieve a diagnosis of malignancy in areas of oesophageal or gastric mucosal abnormality (grade B).
- Endoscopic findings of benign stricturing or oesophagitis should be confirmed with biopsy (grade C).
- Gastric ulcers should be followed up by repeat gastroscopy and biopsy to assess healing and exclude malignancy (grade B).
- Patients diagnosed with high grade dysplasia should be referred to an UGI MDT for further investigation (grade B).
- High resolution endoscopy, chromoendoscopy, spectroscopy, narrow band imaging and autofluorescence imaging are under evaluation and their roles are not yet defined (grade C).

7.1.3. Staging

- Staging investigations for UGI cancer should be co-ordinated within an agreed pathway led by a UGI MDT (grade C).
- Initial staging should be performed with a CT including multiplanar reconstructions of the thorax, abdomen and pelvis to determine the presence of metastatic disease (grade B).
- Further staging with endoscopic ultrasound in oesophageal, oesophago-gastric junctional tumours and selected gastric cancers is recommended, but it is not helpful for the detailed staging of mucosal disease (grade B).
For T1 oesophageal tumours or nodularity in high grade dysplasia, staging by endoscopic resection should be used to define depth of invasion (grade B).
- Positron emission tomography (PET)-CT scanning should be used in combination with endoscopic ultrasound (EUS) and CT for assessment of oesophageal and oesophago-gastric junctional cancer (grade B).
- Laparoscopy should be undertaken in all gastric cancers and in selected patients with lower oesophageal and Oesophagogastric junctional tumours (grade C).

7.1.4. Pathology

- Diagnosis of high grade dysplasia in the oesophagus and stomach should be made and confirmed by two histopathologists, one with a special interest in gastrointestinal disease (grade C).

- Reports on oesophageal and gastric resection specimens should concur with the Royal College of Pathologists (RCPATH) (grade B).
- Oesophago-gastric junctional tumours should be classified as type I (distal oesophageal), type II (cardia) and type III (proximal stomach) (grade C).

7.1.5. Treatment: decision-making

- Treatment recommendations should be undertaken in the context of a UGI MDT taking into account patient co-morbidities, nutritional status, patient preferences and staging information. Recommendations made by the MDT should be discussed with patients within the context of a shared decision-making consultation (grade C).

7.1.6. Treatment: endoscopy

- Endoscopic mucosal resection (EMR) and endoscopic submucosal dissection (ESD) can eradicate early gastro-oesophageal mucosal cancer. EMR should be considered in patients with oesophageal mucosal cancer and both EMR and ESD should be considered for gastric mucosal cancer (grade B).
- The role of EMR in patients with macroscopic abnormalities within Barrett's oesophagus and ablation of residual areas of dysplasia requires further research (grade C).

7.1.7. Treatment: surgery

- All patients should have antithrombotic (grade A, 1b) and antibiotic prophylaxis (grade C) instituted at an appropriate time in relation to surgery and postoperative recovery.
- Oesophageal and gastric cancer surgery should be performed by surgeons who work in a specialist MDT in a designated cancer centre with outcomes audited regularly (grade B).
- Surgeons should perform at least 20 oesophageal and gastric resections annually either individually or operating with another consultant both of whom are core members of the MDT. The individual surgeon and team outcomes should be audited against national benchmarked standards (grade B).

7.1.8 Treatment: oesophageal resection

- There is no evidence favouring one method of oesophageal resection over another (grade A), and evidence for minimal access techniques is limited (grade C).
- The operative strategy should ensure that adequate longitudinal and radial resection margins are achieved with lymphadenectomy appropriate to the histological tumour type and its location (grade B).

7.1.9 Treatment: gastric resection

- Distal (antral) tumours should be treated by subtotal gastrectomy and proximal tumours by total gastrectomy (grade B).
- Cardia, subcardia and type II oesophago-gastric junctional tumours should be treated by transhiatal extended total gastrectomy or oesophago-gastrectomy (grade B).
- Limited gastric resections should only be used for palliation or in the very elderly (grade B).
- The extent of lymphadenectomy should be tailored to the age and fitness of the patient together with the location and stage of the cancer (grade C).
- Patients with clinical stage II and III cancers of the stomach should undergo a D2 lymphadenectomy if fit enough (grade A; 1b).
- The distal pancreas and spleen should not be removed as part of a resection for a cancer in the distal two-thirds of the stomach (grade A; 1b).
- The distal pancreas should be removed only when there is direct invasion and still a chance of a curative procedure in patients with carcinoma of the proximal stomach (grade A; 1b).
- Resection of the spleen and splenic hilar nodes should only be considered in patients with tumours of the proximal stomach located on the greater curvature/posterior wall of

the stomach close to the splenic hilum where the incidence of splenic hilar nodal involvement is likely to be high (grade C).

7.1.10. Treatment: chemotherapy and radiotherapy

- Oesophageal squamous cell carcinoma
- There is no evidence to support the use of preoperative radiotherapy in oesophageal squamous cell carcinoma (grade A; Ia).
- Chemoradiation is the definitive treatment of choice for localised squamous cell carcinoma of the proximal oesophagus (grade A; Ia).
- Localised squamous cell carcinoma of the middle or lower third of the oesophagus may be treated with chemoradiotherapy alone or chemoradiotherapy plus surgery (grade A; Ib).
- There is no evidence to support routine use of adjuvant chemotherapy in oesophageal squamous cell carcinoma (grade A; Ia).

7.1.11. Oesophageal adenocarcinoma (including type I, II and III oesophago-gastric junctional adenocarcinoma)

- Preoperative chemoradiation improves long-term survival over surgery alone (grade A; Ia).
- There is no evidence to support the use of preoperative radiotherapy in oesophageal adenocarcinoma (grade A; Ia).
- Preoperative chemotherapy with cisplatin and 5-fluorouracil (5-FU) improves long-term survival over surgery alone (grade A; Ia).
- < Perioperative chemotherapy (combined preoperative and postoperative) conveys a survival benefit and is the preferred option for type II and III oesophago-gastric junctional adenocarcinoma (grade A; Ib).

7.1.12. Gastric adenocarcinoma

- Perioperative combination chemotherapy conveys a significant survival benefit and is a standard of care (grade A; Ib).
- Adjuvant chemotherapy alone is currently not standard practice for resected adenocarcinoma but has survival benefits in non-Western populations and should be considered in patients at high risk of recurrence who have not received
- neoadjuvant therapy (grade A; Ia).
- Adjuvant chemoradiotherapy improves survival and is a standard of care in the USA, and should be considered in patients at high risk of recurrence who have not received neoadjuvant therapy (grade A; Ib).
- Intraperitoneal chemotherapy remains investigational (grade B).

7.1.13. Palliative treatment

- Palliative treatment should be planned by the MDT taking into account performance status and patient preference, with early direct involvement of

7.1.14. Oesophageal cancer

- Palliative external beam radiotherapy can relieve dysphagia with few side effects, but the benefit is slow to achieve (grade B).
- Palliative brachytherapy improves symptom control and health-related quality of life (HRQL) where survival is expected to be longer than 3 months (grade A; Ib).
- Palliative chemotherapy provides symptom relief and improves HRQL in inoperable or metastatic oesophageal cancer (grade A; Ib).
- Palliative combination chemotherapy improves survival compared with best supportive care in oesophageal squamous cell carcinoma, adenocarcinoma and undifferentiated carcinoma
- (grade A; Ib).

- Trastuzumab in combination with cisplatin/fluoropyrimidine should be considered for patients with HER2-positive oesophago-gastric junctional adenocarcinoma as there is an improvement in disease-free survival (DFS) and overall survival (OS) (grade A; Ib).
- Oesophageal intubation with a self-expanding stent is the treatment of choice for firm stenosing tumours (capable of retaining an endoprosthesis), 2 cm from the cricopharyngeus, where rapid relief of dysphagia in a one-stage procedure is desirable, particularly for patients with a poor prognosis (grade B).
- Antireflux stents confer no added benefit above standard metal stents (grade A; Ib).
- < Covered expandable metal stents are the treatment of choice for malignant tracheo-oesophageal fistulation or following oesophageal perforation sustained during dilatation of a malignant stricture (grade B)
- Laser treatment is effective for relief of dysphagia in exophytic tumours of the oesophagus and gastric cardia, and in treating tumour overgrowth following intubation (grade A; Ib).
- For patients whose dysphagia is palliated using laser therapy, the effect can be prolonged substantially by using adjunctive external beam radiotherapy or brachytherapy (grade A; Ib).
- Photodynamic therapy (PDT) is experimental and its use is not currently recommended (grade B).
- Argon plasma coagulation (APC) may be useful in treating overgrowth above and below stents and in reducing haemorrhage from inoperable tumours (grade C).
- There is no indication for local ethanol injection for symptom palliation (grade B).

7.1.15. Gastric adenocarcinoma

- Palliative combination chemotherapy for locally advanced and/or metastatic disease provides HRQL and survival benefit (grade A; Ia).
- Trastuzumab in combination with cisplatin/fluoropyrimidine should be considered for patients with HER2-positive gastric tumours as there is an improvement in DFS and OS (grade A; Ib).
- The use of other targeted agents should be confined to the context of clinical trials (grade B).
- Second-line irinotecan confers a small survival benefit over best supportive care (BSC), but is not currently approved by the National Institute for Health and Clinical Excellence
- (NICE) (grade A; Ib). Patients of good performance status should be considered for second-line chemotherapy in the context of clinical trials if available.

7.1.16. Follow-up

- There is a lack of UK-centred randomised evidence evaluating follow-up strategies (grade C).
- Audit should be structured with particular reference to outcome measures and should be regarded as a routine part of the work of the MDT (grade C).
- The development of a role for CNSs in follow-up should be actively pursued (grade C).