LCA Oesophageal and Gastric Cancer Clinical Guidelines

April 2014
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Introduction

Oesophageal and gastric (OG) cancers are some of the rarer cancers, with 830 new diagnoses within the London Cancer Alliance (LCA) in 2010, accountable for 4% of the total diagnoses of invasive cancers. Survival rates remain poor: 75% of patients present with the disease too established for curative treatment. The overall 5-year survival rate across the LCA is 15% for oesophageal cancer and 22% for gastric cancer. LCA rates of emergency presentation are higher than the national average, while the rates of diagnosis via the two week wait rule are lower than average. This can be attributed to the levels of deprivation, ethnicity and the younger than average age of those affected.

The LCA Oesophageal and Gastric Cancer Clinical Guidelines provide a practical multidisciplinary guide for the diagnosis, treatment and holistic care and support of OG patients across the LCA. Currently, there are three main treating centres within the LCA: Guy’s and St Thomas’ NHS Foundation Trust; Imperial College Healthcare NHS Trust; and The Royal Marsden NHS Foundation Trust with Mount Vernon, which is aligned between the LCA and the East of England Strategic Clinical Network. There are a further 11 Trusts within the LCA which provide a pivotal role in diagnosing and managing patients’ care locally where applicable.

These guidelines have been adapted from, and supersede, the previous guidelines produced by the former north west, south east and south west London cancer networks and take into consideration the National Cancer Peer Review Programme Manual for Cancer Services, Upper GI Measures Version 1.0 (Upper GI Measures – CQuINs www.cquins.nhs.uk/download.php?d=resources/measures/UGI).

They have been developed by the LCA Oesophago-Gastric Pathway Group to ensure that care throughout the LCA conforms to national and international best practice. They draw on the expertise of a range of clinicians from across the LCA’s 16 provider organisations, and subsequently reflect the wider OG cancer pathway. They provide evidence-based clinical information and protocols on all aspects of the OG cancer pathway, while allowing sufficient flexibility to reflect good local practice, and should therefore be used by clinicians to inform the treatment and care they provide.

The LCA guidelines are designed to be used by all healthcare professionals in Trusts within the LCA who are involved in the care of OG cancer patients. They have been developed to take into account the wide range of clinical experience of the user and the different clinical settings in which they work. The guidelines are intended to assist in the initial assessment, investigation and management of patients. Adoption of the LCA guidelines will allow widespread implementation of up-to-date and evidence-based management of OG cancer patients, and will assist in the provision of a consistently high standard of care across the LCA.

All Trusts are expected to be able to provide the standard of care detailed in these guidelines.

The LCA Oesophago-Gastric Pathway Group meets regularly, and the guidelines will be reviewed annually to ensure that they are updated with emerging evidence and changes in practice.

Professor George Hanna
Chair, LCA Oesophago-Gastric Pathway Group
Head of Division of Surgery,
Imperial College London
Executive Summary

The London Cancer Alliance (LCA) Oesophageal and Gastric Cancer Clinical Guidelines combine the best features of earlier network protocols, and have been developed in agreement with clinicians across the LCA. The guidelines combine evidence-based and best practice recommendations with the aim of ensuring that there are equitable, high-quality services across the LCA. The guidelines are multidisciplinary and cover imaging, pathology, surgery, radiotherapy, systemic therapy and survivorship.

Chapter 1, on referrals, outlines the symptoms patients typically present with and their desired referral routes. This chapter also outlines the information required for referring patients to diagnostic hospitals, treating centres and community palliative care specialists.

Chapter 2, on diagnostics, outlines all appropriate tests that should be undertaken by the diagnostic hospital to effectively diagnose OG cancer patients. Details of sites specialising in endoscopic ultrasound have also been listed to allow easier referral to this service.

Chapter 3 sets out the multidisciplinary team (MDT) structure, underlining the minimum requirements of both a local diagnostic MDT and a specialist centre, in line with peer review requirements. The chapter also outlines the role of the key worker, an essential component of ensuring high-quality patient experience.

Chapter 4 deals with the management of OG cancer and details the reporting requirement for diagnostic teams and the standardised approach to be taken in the pre-assessment of patients being referred for radical treatment. This chapter features recommendations which adhere to national guidance from The Royal College of Pathologists along with original guidance to ensure that radiology reporting is of the same high standard.

The treatments sections in Chapters 5 and 6 assess the options available to patients with regard to surgical intervention, chemotherapy, radiotherapy, chemo-radiation and palliative treatment. Also included are details of minimally invasive surgery such as EMR (endoscopic mucosal resection). Algorithms have been developed to identify those patients who will be suitable to receive the available treatments. Consensus on, and understanding of, the variation of chemotherapy regimens have also been included.

Chapter 7, on nutrition, details the specific impacts faced by OG cancer patients that need to be considered while managing them in secondary/tertiary care. Allied healthcare professionals’ input is detailed in this chapter as they are vital to improving the quality of care each patient receives along their pathway.

Chapter 8, on the follow-up after completion of treatment, and Chapter 9, survivorship, detail the ongoing care for patients living with their condition beyond treatment. Recommendations developed by the LCA Survivorship Group have been tailored to specifically meet the needs of OG cancer patients and offer clinicians appropriate advice on managing the patients’ needs holistically.

Key priorities will be identified across sub-specialties with a view to auditing compliance, and this is dealt with in Chapter 10. Alongside this, Chapter 11 stresses that there should be a continued emphasis on national clinical trial leadership, proven to improve the standard of care for all patients.
1 Referrals

1.1 Referral of patients suspected of having upper gastrointestinal cancer

1.1.1 Referrals from general practice

Patients can be referred by their GP as an urgent suspected cancer. Those referred urgently are seen according to the two week wait rule.

The guidelines for urgent referral, in accordance with the National Institute for Health and Care Excellence (NICE) recommendations, are:

- patients of any age with any of the following:
  - chronic gastrointestinal (GI) bleeding
  - dysphagia
  - progressive unintentional weight loss
  - persistent vomiting
  - iron deficiency anaemia
  - epigastric mass
  - suspicious barium meal result
- patients aged over 55 with unexplained persistent recent onset dyspepsia (>6–8 weeks)
- patients presenting with dyspepsia AND with any of the following:
  - a family history of upper GI cancer in more than two first-degree relatives
  - Barrett’s oesophagus
  - pernicious anaemia
  - peptic ulcers >20 years ago.

A GP referral proforma should be completed in full, highlighting the referral criteria in particular. Previous network referral proformas (Appendix 1) still exist and should be completed and sent to LCA Trusts electronically, by fax or by post within 24 hours. The patient will be seen within two calendar weeks from that date. Each diagnostic unit has its own internal arrangements to provide rapid access clinics. However, in general, the patient is contacted either by phone or letter explaining why they need to be seen urgently. A full assessment is undertaken and investigations planned.

1.1.2 Outpatients

Patients referred from other consultants can be seen in a rapid access clinic as per a GP urgent referral as above or in a joint oncology clinic if a diagnosis has already been made.

1.1.3 Inpatients

Patients with suspected upper GI cancer should be referred to the upper GI oncology multidisciplinary team (MDT) within 24 hours of the diagnosis being suspected. Where possible, these patients should all be referred to the upper GI clinical nurse specialist.
1.1.4 Emergency admissions

Patients with OG cancer may be presented as emergency admissions through A&E departments. Those patients need to be referred to the upper GI MDT meetings and managed accordingly.

1.2 Referral for patients with a diagnosis of OG cancer

1.2.1 Standard information to include in referrals to surgery

- Basic demographics (including contact telephone number)
- Main symptoms:
  - weight loss
  - dysphagia
  - nausea
  - vomiting
  - reduced appetite
  - fatigue
  - anaemia
  - odynophagia
  - reflux/dyspepsia
- Performance status
- Endoscopy information
- Histology
- Stage of disease
- Body Mass Index (BMI)
- Co-morbid disease including past history of malignancy
- Endoscopic ultrasound (where applicable)
- Laparoscopic findings (where applicable)
- Current medications
- Information that was given to the patient.

1.2.2 Standard information to include in referrals to medical and clinical oncology

- Basic demographics (including contact telephone number)
- Main symptoms:
  - weight loss
  - dysphagia
  - nausea
  - vomiting
  - reduced appetite
– fatigue
– anaemia
– odynophagia
– reflux/dyspepsia

- Performance status
- Endoscopy information
- Histology
- Stage of disease
- Co-morbid disease including past history of malignancy
- Endoscopic ultrasound
- Laparoscopic findings
- Current medications
- Information that was given to the patient.

1.2.3 Standard information to include in referrals to community palliative care teams
(see Appendix 6)

- Patient demographics and contact details
- Diagnosis and staging information (copies of scans, blood results etc. attached where possible)
- Other relevant medical conditions
- Reason for current referral and patient consent to referral
- Urgency of referral
- Service requested
- Patient and carer insight into disease
- Cognitive function/barriers to communication
- Information on family, if known
- Referrer’s details including names of other consultants involved in patient’s care.

For patients requiring a hospital inpatient palliative care review, please contact your local hospital palliative care team as per usual hospital policy.
2 Assessment of Patients with Possible OG Cancer

2.1 Presentation

The following are assessed and recorded at presentation in patients presenting with possible OG cancer:

- History, which includes:
  - age
  - previous/current occupation
  - smoking history
  - alcohol consumption
  - presenting symptoms:
    - weight loss
    - nausea
    - vomiting
    - reduced appetite
    - fatigue
    - anaemia
    - dysphagia
  - co-morbidity
  - social and family history
  - past medical history
  - drug history
  - nutritional screening completed.

<table>
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<td>0 = able to eat normal diet/no dysphagia</td>
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<tr>
<td>1 = able to swallow some solid foods</td>
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<tr>
<td>2 = able to swallow only semi-solid foods</td>
</tr>
<tr>
<td>3 = able to swallow liquids only</td>
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<tr>
<td>4 = unable to swallow anything/total dysphagia</td>
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• Performance status:
  − PS 0: able to carry out normal activity
  − PS 1: restricted in physical strenuous activity but ambulatory and able to carry out light work
  − PS 2: ambulatory and capable of all self-care but unable to carry out any work up for >50% of waking hours
  − PS 3: capable of limited self-care, confined to bed or chair for >50% of waking hours
  − PS 4: completely disabled, cannot carry out any self-care, totally confined to bed or chair.

2.2 Full examination
• Weight
• Height
• BMI
• Usual/normal weight
• Weight loss over what time period?
• Neck lymphadenopathy
• Abdominal examination for organomegaly.

2.3 Blood tests
• Full blood count and clotting screen
• Biochemistry:
  − liver function tests
  − renal function tests.

2.4 Diagnostic testing
Diagnostic testing is performed to determine whether the patient has an oesophageal or gastric cancer and the histological type of the cancer. The following procedures may be undertaken:
• oesophago-gastro-duodenoscopy (OGD)
• fine needle aspiration (FNA) or biopsy
• endoscopic ultrasound (EUS) ± EUS-guided biopsy/FNA (FNA is performed when more definitive biopsy samples cannot be obtained)
• CT imaging.

2.4.1 Oesophago-gastro-duodenoscopy

Informed consent
Informed consent is obtained from all patients prior to endoscopy. Whenever possible, ‘cold consent’ is gained in outpatients or on the ward to ensure that there is adequate time for the patient to consider the information given to them about the procedure. An information leaflet should be provided to each patient.
Consent is obtained by the individual performing the procedure.

The risks of the procedure and local complication rates should be explained and documented as recommended by:
- General Medical Council, 1998
- Health Service Ombudsman.

**Waiting times**

Most patients should ideally undergo endoscopy within one week of initial assessment or, where possible, services should be developed to allow GPs open access to endoscopic facilities.

The GP must be faxed confirmation of the diagnosis of upper GI cancer within 24 hours of the patient being informed.

**Endoscopy protocols, including supervision**

Endoscopy takes place in a designated endoscopy unit which has been approved by the Joint Advisory Group on GI Endoscopy. For the majority of patients, this is a day case procedure. All endoscopies for suspected upper GI cancer are undertaken by or are carried out under the close supervision of a consultant gastroenterologist or surgeon. Protocols for endoscopy are in accordance with local and national guidelines.

The following information should be obtained from upper GI endoscopy for malignancy and recorded on a standard trust proforma and must include items in **Appendix 2**:  

- location of tumour, specified as distance (cm) from incisors  
- distance of tumour from the gastro-oesophageal junction (GOJ)  
- distinguish cervical, upper, mid or lower oesophageal cancer  
- length of tumour if able to pass scope  
- size of scope used if obstruction  
- nature of tumour – polypoid, exophytic versus ulcerated  
- percentage of circumference involved  
- if tumour is within stomach, extension or involvement of GOJ – that is, how far does it extend into oesophagus, if at all.

For a visible tumour, samples should be taken. This can be brush cytology followed by multiple biopsies or FNA.

Diagnostic accuracy using endoscopy and biopsy should be greater than 90%.¹

**Endoscopy complications**

A record of complications is kept on the report; audit/mortality meetings occur at monthly intervals in the endoscopy unit.

**Endoscopic ultrasound in diagnosis**

Where tissue diagnosis has not been possible by use of OGD, patients should be considered for referral for a diagnostic EUS.
Within the LCA, an EUS service is available at the following sites:

- Chelsea and Westminster Hospital NHS Foundation Trust
- Guy’s and St Thomas’ NHS Foundation Trust
- Imperial College Healthcare NHS Trust (St Mary’s Hospital and Hammersmith Hospital)
- King’s College Healthcare NHS Foundation Trust
- St George’s Healthcare NHS Trust
- The Royal Marsden NHS Foundation Trust.

**Pathology request forms**

The minimum data on cytology/histopathology request forms should be as follows:

- name
- date of birth
- hospital number
- sample site (including specific biopsy site)
- sample type
- requesting clinician
- destination for report (ward, outpatient department etc.)
- clinical history
- clinical diagnosis
- endoscopy findings.

Desirable/additional information on request forms includes:

- previous histology.

**2.4.2 Computerised tomography imaging** (see Appendix 3)

Spiral computerised tomography (CT) scan: chest, abdomen and pelvis +/- neck with intravenous (IV) and oral contrast. The standards for CT staging are as follows:

- oral contrast 30 minutes prior to scan to opacify stomach and bowel
- more oral contrast immediately prior to scan to distend oesophagus; Buscopan may be helpful to distend oesophagus; scanning prone may also help to separate oesophagus from mediastinal structures
- IV contrast 100–120cc at 3ml/s. Scan in arterial phase for chest (20-second delay) and portal venous phase for liver (60-second delay)
- slice acquisition depends on type of scanner but ideally the viewing slice thickness should be 5mm
- reporting according to standard protocols.

Once a diagnosis has been made, patients should be offered a holistic needs assessment in line with the survivorship guidelines (see Chapter 9).
2.5 Gastrointestinal stromal tumours

Gastrointestinal stromal tumours (GIST) arise from the mesodermal tissues of the GI tract. They constitute only 1%–2% of upper GI malignancy. They are characterised by positive staining to C-kit. They are primarily located in the stomach (70%), small bowel (20%) and oesophagus (10%).

2.5.1 Presentation

Many, especially small, tumours (<2cm) are asymptomatic and are found as an incidental finding on endoscopy as a bulge under the mucosa. As they get bigger they outgrow their blood supply and can ulcerate and bleed, presenting as a haematemesis or anaemia. They grow outwards away from the lumen and ischaemia results in central necrosis and cavitation. They can present in such cases as an abdominal mass or with abdominal pain. Obstruction is a rare presentation unless situated at the pylorus or GOJ.

2.5.2 Diagnosis and staging

Small early tumours are diagnosed on appearance; as they grow under the mucosa it may be difficult to get tissue. EUS can delineate the lesion and layers in which it arises and enable a guided core biopsy. Larger masses are suitable for percutaneous guided biopsy. The diagnosis is confirmed by staining with antibodies for CD117 (5% may be negative) or CD34 or DOG1. CT will further delineate the tumours and in large tumours demonstrate invasion and metastasis.

Metastatic potential is related to size >5cm and number of mitotic figures per high power field (>5/50HPF). Over 80% are benign. Metastasis to lymph nodes is rare and the most common sites of metastasis are the liver and the omentum.
Figure 2.1: OG management – unit

- **GP (TWR)/ A&E/ INTERNAL REFERRAL DIRECT ACCESS ENDOSCOPY**
- **ENDOSCOPY AND BIOPSY**
  - Standard report
- **ADENOCARCINOMA SCC**
- **ASSESSMENT OF PERFORMANCE STATUS AND CO-MORBIDITY**
  - **PS 4**
    - Extensive visceral metastases
    - MDT
    - PALLIATIVE CARE
    - Review MDT at centre +/- radiology review
  - **PS 3**
    - Extensive visceral metastases
    - MDT
    - PALLIATIVE CARE
    - Review MDT at centre +/- radiology review
  - **CT**
    - Chest, abdomen, pelvis
    - Standard protocol
  - **REFER TO CENTRE MDT**
2.6 Management of children, teenagers and young adults with diagnosed or suspected OG cancer

2.6.1 Children

Children below the age of 16 years with a diagnosis of cancer or suspected cancer must be referred to the paediatric oncology team at the principal treatment centre (PTC) and must not be managed exclusively by adult site-specific teams.

• The joint PTC for children aged 1–16 years for South Thames is The Royal Marsden (Surrey site)/St George’s Hospital.
• The PTC for North Thames (including North West London) is Great Ormond Street Hospital/University College London Hospitals.
• All patients <1 year should be referred to Great Ormond Street Hospital.

The paediatric oncology team should liaise with the appropriate site-specific MDT for advice about management and to agree surgical interventions, but overall responsibility for managing the patient remains with the paediatric oncology team.

Please see Appendix 8 for information about the children’s PTCs in the LCA.

2.6.2 Teenagers and young adults

Teenagers aged 16–18 should be managed at a PTC for teenager and young adult (TYA) cancers. Young adults aged 19–24 should be given the choice of being managed at a PTC or TYA designated hospital.

• The PTC for TYA for South Thames is The Royal Marsden (Surrey site).
• The PTC for North Thames (including North West London) is University College London Hospitals.

All patients within this age range, regardless of place of care, should be referred to the TYA MDT at the relevant PTC.

Please see Appendix 9 for information about the PTCs and TYA designated hospitals in the LCA.

2.7 Surveillance of patients with Barrett’s oesophagus

Barrett’s oesophagus is defined as columnar-lined tubular oesophagus with intestinal metaplasia demonstrable at histology. It is a pre-malignant condition with an approximately 1% risk of development of carcinoma per year of follow-up. Adenocarcinomas discovered by surveillance in asymptomatic subjects have been shown to be at earlier stages of disease compared with those of symptomatic patients. Although there is cost-effectiveness for regular endoscopic surveillance for patients deemed surgically fit, less fit patients may still benefit from surveillance.

Following endoscopic and histological diagnosis, endoscopic surveillance should be performed every 2–3 years in those without dysplasia initially. Those with low-grade dysplasia should have surveillance endoscopy every 6 months as long as it remains stable. Those with high-grade dysplasia should have their pathology reviewed at the specialist multidisciplinary team (SMDT) meeting and the decision to resect or continue surveillance made.
At each surveillance endoscopy, quadrant biopsies should be taken, at least from the proximal and distal margins of the columnised segment together with any endoscopically visible lesion. Ideally, quadrant biopsies should be taken every 2cm of the entire length of the Barrett’s oesophagus.

A priority for the LCA Oesophago-Gastric Pathway Group in 2014–15 is to explore an optimum strategy for robust surveillance of patients with Barrett’s oesophagus. More robust guidance for the management of these patients will be included when the guidelines are updated.


3 Multidisciplinary Team Structure

3.1 Local diagnostic unit

Diagnostic tests for suspected OG cancer should take place under the care of the local diagnostic multidisciplinary team (LMDT). There should be a single named lead clinician for the LMDT who should then be a core team member. The core team specific to the upper gastrointestinal (GI) cancer diagnostic or diagnostic/local care team should include:

- one or more clinicians (physicians or surgeons) specialising in gastroenterology
- an endoscopist of any discipline, who could be one of the other team members
- a histopathologist
- a radiologist
- a clinical oncologist
- a medical oncologist (where the responsibility for chemotherapy is not undertaken by the clinical oncologist core member)
- an upper GI nurse specialist
- an MDT coordinator/secretary
- a core member of the specialist palliative care team
- a registered dietitian.

An NHS-employed member of the core or extended team should be nominated as having specific responsibility for users’ issues and for providing information for patients and carers.

A member of the MDT should be nominated as the person responsible for ensuring that recruitment into clinical trials and other well designed studies is integrated into the function of the MDT.

All new cancer patients will be reviewed by an MDT for discussion of the initial treatment plan. The team should hold its meetings at least weekly, record core members’ attendance and have a written procedure governing how to deal with referrals which need a treatment planning decision before the next scheduled meeting.

The MDT should agree cover arrangements for each core member. Core members or their arranged cover should attend at least two-thirds of the number of meetings.

The MDT should have agreed a policy whereby all patients diagnosed with OG cancer are discussed with a member of the relevant specialist team prior to referral to the specialist team or prior to proposed local care. The date at which the discussion took place should be recorded in the case notes.

The MDT should have agreed a policy whereby, after a patient is given a diagnosis of cancer, the patient’s GP is informed of the diagnosis by the end of the following working day.

The MDT should have completed an audit against the policy of the timeliness of notification to GPs of the diagnosis of cancer.

Diagnosed patients are then referred for discussion at the next specialist MDT (SMDT) meeting or are referred once the necessary investigations have been completed. The SMDT meeting will discuss treatment
plans and follow up arrangements to ensure that patients are managed according to the LCA Oesophageal and Gastric Cancer Clinical Guidelines.

3.2 Specialist centre

There should be a single named lead clinician for the OG SMDT who should then be a core team member.

The core team specific to the OG SMDT should include:

- two or more surgeons (note: OG or thoracic surgeons may count as core team surgeons; it is recommended that these are not also hepato-pancreato-biliary surgeons)
- a physician gastroenterologist
- a clinical oncologist
- a medical oncologist (where the responsibility for chemotherapy is not undertaken by the clinical oncologist core member)
- a histopathologist
- an imaging specialist
- an OG nurse specialist
- a core member of the specialist palliative care team
- an MDT coordinator/secretary
- a registered dietitian specialising in OG cancer
- an oncology specialist physiotherapist.

An NHS-employed member of the core or extended team should be nominated as having specific responsibility for users’ issues and for providing information for patients and carers.

A member of the core team should be nominated as the person responsible for ensuring that recruitment into clinical trials and other well designed studies is integrated into the function of the MDT.

At least one of the core team radiologists should be an interventional radiologist.

There should be a core team member trained in endoscopic ultrasonography.

The team should hold its meetings at least weekly, record core members’ attendance and have a written procedure governing how to deal with referrals which need a treatment planning decision before the next scheduled meeting.

The SMDT should agree cover arrangements for each core member. Core members or their arranged cover should attend at least two-thirds of the number of meetings.

Once a treatment decision has been finalised with the consultant, patients should be seen in an outpatient setting to discuss treatment options. All patients should have access to a clinical nurse specialist who should act as their key worker. All patients should be provided with a written information sheet relevant to their care.
3.3 Key worker allocation and role

Each patient should have a designated key worker allocated to them. The key worker has five main responsibilities relating directly to the patient’s pathway and care:

- orchestrating assessments to ensure the patient’s needs are elicited
- ensuring that care plans have been agreed with the patient
- ensuring that the MDT findings from assessments and care plans are communicated to others involved in the patient’s care
- ensuring that the patient knows who to contact when help or advice is needed, whether that is the key worker or other appropriate personnel.
- managing transition of care

These are in accordance with the LCA Key Worker Policy (see Appendix 7).
4 Management of OG Cancer

4.1 Staging of patients with OG cancer

This will be performed using the TNM Classification of Malignant Tumours system, 7th edition. This is composed of pre-operative clinical staging and pathological staging of the resected specimen. In this latter case, the TNM stage is preceded by a ‘p’. If patients have had neo-adjuvant treatment, then the TNM stage should also be prefixed by a ‘y’.

Gastro-oesophageal junctional (GOJ) tumours should be classified according to the Siewert classification:

- Type I of the distal oesophagus (centre located within 1–5cm above the anatomic GOJ)
- Type II of the real cardia (within 1cm above and 2cm below the GOJ)
- Type III is subcardial stomach (2–5cm below the GOJ).

Patient pre-operative staging options include:

- spiral computerised tomography (CT) scan – chest, abdomen and pelvis +/- neck with intravenous (IV) and oral contrast (see criteria below)
- endoluminal ultrasound scan for all cases of oesophageal and OG cancer considered for resection
- endoscopic mucosal resection should be considered for staging of patients with possible T1 oesophageal cancer
- combined CT/positron emission tomography (PET) scanning for all patients considered for curative treatment
- laparoscopic staging for all gastric and Siewert Type II and III cancers but not oesophageal and Siewert Type I.

4.1.1 Computerised tomography imaging (see Appendix 3)

The standards for CT staging are as follows:

- oral contrast 30 minutes prior to scan to opacify stomach and bowel
- more oral contrast immediately prior to scan to distend oesophagus; Buscopan may be helpful to distend oesophagus; scanning prone may also help to separate oesophagus from mediastinal structures
- IV contrast 100–120cc at 3ml/s; scan in arterial phase for chest (20-second delay) and portal venous phase for liver (60-second delay)
- slice acquisition depends on type of scanner but ideally the viewing slice thickness should be 5mm
- reporting according to standard protocols.

4.1.2 Histopathology guidelines (see Appendix 4)

- All positive histology to be reviewed at the specialist centre for patients undergoing potentially curative therapy.
- All specimens of dysplasia – high-grade and low-grade, high-risk patients – to be reviewed at the centre by two separate specialist gastrointestinal (GI) histopathologists.
• Formal report of resected specimen to include formal pTNM staging with total number of nodes examined and total number positive. Also details of resection margins both longitudinal and circumferential to be recorded.

• TNM staging should be recorded for all patients at the local and specialist multidisciplinary team (LMDT and SMDT).

4.2 Pre-assessment

Both radical surgery and curative chemo-radiation strategies have significant morbidity associated with treatment. Careful co-morbidity assessment is essential when planning treatment strategies. This includes access to cardio-pulmonary exercise testing. All patients should be referred for nutritional assessment and management, ideally by a specialist OG dietitian. Patients undergoing surgery should be considered for pre-operative immunonutrition.

Pre-assessment for surgery must include the following:

• general assessment, including activity levels, by anaesthetist/intensivist with option for cardio-pulmonary exercise testing
• routine full blood count, urea and electrolytes, liver function test, clotting studies
• group and save for all patients
• chest X-ray and electrocardiogram (ECG)
• consent by operating centre surgeon either in pre-clerking or on admission
• consideration of pre-operative carbohydrate loading for all patients.

The administration of deep vein thrombosis prophylaxis should be withheld until an anaesthetist has reviewed the patient; the timing of the administration will influence the epidural.

Patients on anti-coagulation should be given the following instructions:

• low-dose warfarin for peripherally inserted central catheter (PICC)/Hickman line, stop 48 hours pre-operation
• full anti-coagulation – manage with haematology; stop warfarin pre-operation – therapeutic tinzaparin (patients on tinzaparin should omit a single dose on the evening prior to the operation).


5  Treatment of Oesophageal Cancer

5.1  Treatment options

Once the staging has been completed, the following information should be available to make a decision regarding radical treatment:

- tumour type
- tumour stage
- performance status.

5.2  Radical treatment

5.2.1  Endoscopic therapy

**High-grade dysplasia and T1a/T1b (early stage)**

Endoscopic mucosal resection (EMR) should be available for patients with oesophageal mucosal cancer and in patients with macroscopic abnormalities within Barrett’s oesophagus.

EMR should be considered as both a staging technique and a therapeutic modality for patients with apparently early disease.

Endoscopic ablation of residual areas of dysplasia should be considered for patients who have undergone EMR with clear margins and for those with histologically confirmed high-grade dysplasia in association with Barrett’s metaplasia.

Within the LCA, EMR is offered at the following sites:

- Guy’s and St Thomas’ NHS Foundation Trust
- The Royal Marsden NHS Foundation Trust
- Imperial College Healthcare NHS Trust.

5.2.2  Curative surgery

- The patient must survive the procedure with minimum morbidity.
- There must be a realistic prospect of survival of at least 1 year.
- Aim for R0 resection (i.e. microscopic clearance).
- There must be adequate lymphadenectomy.
- Oesophagogastrectomy should be undertaken only in hospitals capable of carrying out careful case selection, with a large case volume and sufficient surgical and intensive care experience.
- There is no evidence favouring one method of oesophageal resection over another.
- The operative strategy should ensure that adequate longitudinal and radial resection margins are achieved whenever possible, along with a lymphadenectomy appropriate to the histological tumour type and its location.
- Clinical anastomotic leakage should not exceed 8%.
• Overall hospital mortality rates for oesophageal resection should be less than 5%.
• Pre-operative immunonutrition and carbohydrate loading should be considered for all patients undergoing surgery.
• All patients undergoing an oesophagectomy should have a jejunostomy placed intra-operatively.
• Jejunostomy feeding should be considered on day +1.
• All patients undergoing oesophagectomy with cervical anastomosis should be referred to speech and language therapy for assessment of oro-pharyngeal swallow function and voice.

**Adjuvant regimen**

*Cisplatin/Fp*

2 cycles pre-operatively

Cisplatin 60–80mg/m² every 21 days

Fp:

Capecitabine 625mg/m² BD continuously for 21 days

or

5FU 200mg/m² OD continuously for 21 days

### 5.2.3 Peri-operative chemotherapy

Peri-operative chemotherapy should be offered for patients considered suitable for surgery (T2N0–2; T3N0–2).

For squamous cell carcinomas (SCC), the recommendation is 6–12 weeks of neo-adjuvant chemotherapy followed by chemo-radiotherapy. For oesophageal adenocarcinomas (lower oesophagus and the gastro-oesophageal junction (GOJ)), the recommendation is 6 cycles of peri-operative chemotherapy (3 cycles neo-adjuvant and 3 cycles adjuvant).

Early liaison with the surgical team is vital, and during the course of chemotherapy they should be kept informed of progress so that resection may be planned appropriately.

Reassessment after chemotherapy (investigations should be booked in advance to avoid delays):

- computerised tomography (CT) scan (chest, abdomen and pelvis)
- re-discuss at SMDT meeting with surgical team.

Surgery should be planned to take place within 4–6 weeks of stopping chemotherapy.

All patients require regular nutritional assessment during chemotherapy.

**Neo-adjuvant and adjuvant regimen**

*ECFp*

3 cycles pre- and post-operation

Epirubicin 50mg/m² every 21 days

Cisplatin 60mg/m² every 21 days
Fp:

Capecitabine 625 mg/m² BD continuously for 21 days (ECX)

or

5FU 200mg/m² OD continuously for 21 days (ECF)

5.2.4 Chemo-radiation

Chemo-radiotherapy is administered as primary treatment for SCC of the oesophagus and may be an option for patients with non-operable adenocarcinoma of the oesophagus and GOJ – Siewert Types I, II and III due to co-morbidity.²

Surgery may be an option after neo-adjuvant chemotherapy and needs to be discussed with patients who have operable lower and mid-oesophageal SCC. However, surgery is not routinely required in patients with SCC who have undergone neo-adjuvant chemotherapy and radical chemo-radiotherapy. In this circumstance, salvage surgery is required only if there is residual disease/recurrence.

There is evidence to support pre-operative chemo-radiation with planned surgery in selected patients based on the CROSS Trial Dutch study³ with a radiation dose of 41.4Gy in 23 fractions with chemotherapy (paclitaxel and carboplatin). This should only be undertaken in selected patients with maximum tumour length of 8cm after discussion in the SMDT.

5.2.5 Radiotherapy

Radiotherapy may be used palliatively in the management of OG cancers for symptom relief, dysphagia, pain and possibly bleeding.

Doses and fractionation will vary from centre to centre and will also depend upon the patient’s clinical condition.

Treatment should be planned using either orthogonal or virtual simulation and treatment dosed to either the mid-plane or isocentre.

Radiotherapy doses and fractionation may include 8Gy x 1# for 1 day, 20Gy x 5# for 5 days, 27Gy x 6# for 21 days but each centre will have differing palliative regimes.

For SCC of the oesophagus, radical conformal radiation therapy (CRT) is the treatment of choice; this may also be the case for adenocarcinoma where surgery is not feasible. Again, radical dose and fractionation will differ from centre to centre but patients treated in this fashion should be planned using a CT planning algorithm and dosed to the isocentre. Fractionation will include 50.4Gy x 28# for 5 weeks, 50Gy x 25# for 5 weeks but will vary from centre to centre.

If available, brachytherapy should be considered for palliation of dysphagia.

Regimens concomitant with radiotherapy

It is recognised that local practice varies and dosage for the following is discrentional.

Fp (5FU or capecitabine)

Fp + cisplatin

FOLFOX
Fp – 5FU/capecitabine
Platinum – oxaliplatin/cisplatin/carboplatin

All patients should be referred to the specialist OG cancer dietitian for nutritional assessment and consideration of a radiologically inserted gastrostomy (RIG).

Patients should receive weekly nutritional assessments by the dietitian throughout their radiotherapy treatment, with ongoing follow-up until treatment-related nutritional problems resolve.

5.2.6 Locally advanced adenocarcinoma potentially operable if down-staged

Patients in this category should be considered for the current standard regimen.

Reassessment after chemotherapy:
- CT scan – chest, abdomen and pelvis
- if potentially resectable, arrange EUS + biopsy
- discuss at SMDT meeting to consider surgery or further chemotherapy
- once a patient’s initial treatment is complete and at other significant steps in their journey, they should be offered a holistic needs assessment in line with the survivorship guidelines (see Chapter 9).

5.3 Palliative treatment

Those patients not suitable for radical treatment should be considered for palliative therapies including chemotherapy, radiotherapy and chemo-radiotherapy.

Disease response should be reassessed every 3–4 cycles:
- CT scan – chest, abdomen and pelvis with contrast unless contraindicated.
- If stable disease or partial response, and patient is tolerating treatment, continue for further 4 cycles (8 in total). In the event of early treatment failure (on chemotherapy, or within 6 months of completing of treatment), there is currently no standard second-line therapy but consideration can be given depending on the patient’s wishes.
- Consideration should be given to treatment within phase I/II clinical trials.
- If there is a relatively long progression-free interval after discontinuation of chemotherapy (>6 months), then consideration can be given to re-challenging with standard treatment. This is at the discretion of the consultant.
- If no further lines of treatment can be offered, patients should not continue routine clinic follow-up.
- Patients and carers should be aware that the team may be contacted should the need arise. Ensure that appropriate home/palliative care support is arranged for all patients.
- Ensure that all patients are offered community palliative care support and that a timely referral is made where appropriate.
- Symptom control recommendations should be made in line with the Palliative Care Adult Network Guidelines, 3rd edition, 2011 which can be found at http://book.pallcare.info/.
Locally advanced/metastatic regimens

Please note that treatment combinations may vary depending upon the underlying histological diagnosis.

**EOFp**

6–8 cycles

- Epirubicin 50mg/m² every 21 days
- Oxaliplatin 130mg/m² every 21 days
- Capecitabine 625mg/m² BD continuously for 21 days or 5FU 200mg/m² OD continuously for 21 days

**Platinum/Fp/trastuzumab (if HER2-positive)**

6 cycles chemotherapy and continue with 3-weekly trastuzumab

- Trastuzumab 8mg/kg loading dose, then 6mg/kg 3-weekly
- Cisplatin 80mg/m² every 21 days or 5FU 800mg/m² every 21 days or Capecitabine 1000mg/m² BD 14/21 days

**Docetaxel/irinotecan**

6–8 cycles depending upon response and toxicity

- Docetaxel 60mg/m² every 21 days
- Irinotecan 250mg/m² every 21 days

**FOLFIRI**

6–8 cycles depending upon response and toxicity

- Irinotecan 180mg/m² every 14 days
- 5FU bolus 400mg/m² every 14 days
- 5FU infuser 2400mg/m² over 46 hours every 14 days

**MMC/capecitabine**

6 cycles of capecitabine (3 injections of MMC)

- Mitomycin C 7mg/m² every 6 weeks
- Capecitabine 1000–1250mg/m² twice daily for 14 days. Repeat every 21 days
Symptom palliation should be delivered as close to the patient’s home as possible, whether that is in the community, local hospital or hospice. Symptoms may on occasion require admission to a specialist centre if an interventional procedure is required, with transfer back to local services in a timely manner.

Intervention:

- **Relief of dysphagia:**
  - first-line treatment – self-expanding metallic stent
  - APC or laser for stent complications
- **Bleeding** – urgent referral for radiotherapy
- **Gastric outlet obstruction** – gastrojejunostomy or duodenal stent
- **Perforation of oesophagus; tracheoesophageal fistula** – covered self-expanding metallic stent; consider parallel stents for high fistula
- **Nutritional support** – enteral nutrition (naso-enteric, gastrostomy or jejunostomy) should be considered in preference to parenteral nutrition (PN). PN may be used in specific circumstances such as gastric outlet obstruction. However, this requires a multidisciplinary approach to decision making
- **Vocal cord medialisation** should be considered for those patients presenting with mediastinal mass compression to the recurrent laryngeal nerve, causing dysphonia and reduced airway protection for swallowing (referral to ENT advised).

### 5.4 Treatment of gastrointestinal stromal tumours

Small (<2cm) gastrointestinal stromal tumours (GIST) with normal overlying mucosa found incidentally in older patients can be treated expectantly. Localised lesions and those that have bled should be treated by local excision either by a laparoscopic or open approach. A clear margin is required. Larger lesions, especially with evidence of inoperability, should be treated with imatinib a C-kit tyrosine kinase inhibitor. Such treatment has resulted in a 2-year survival in advanced disease of 70%–80%. The role of imatinib as a post resection adjuvant is not proven and is not currently recommended by NICE guidance.

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1. For the context of this chapter, Fp stands for fluoropyrimidine and refers to either/both 5FU and/or capecitabine.


3. Van Heijl M et al. (2008), Neoadjuvant chemoradiation followed by surgery versus surgery alone for patients with adenocarcinoma or squamous cell carcinoma of the esophagus (CROSS), *BMC Surgery* 8(21).
Figure 5.1: OG management – centre – adenocarcinoma
Figure 5.2: OG management – centre – squamous cell carcinoma

- MDT
- CT review
- Histopathology review

- OESOPHAGUS

- EUS +/- PET

- +/- LAPAROSCOPY

- MDT

- T1~4 NO~1 MO
- CHEMORADIATION

- TX NX M1
- CHEMOTHERAPY/ PALLIATIVE CARE

? SURGERY IN RESPONDERS WITH RESIDUAL DISEASE
6  Treatment of Gastric Cancer

6.1  Radical treatment

6.1.1  Surgery
The best results are likely to be produced by experienced surgeons operating in specialist units as part of a multidisciplinary team (MDT).

- Distal (antral) tumours should be treated by subtotal gastrectomy and proximal tumours by total gastrectomy.
- Limited gastric resections should presently be used only for palliation or in the very elderly.
- Patients with curable cancers of the stomach should be considered for a D2 lymphadenectomy.
- The extent of lymphadenectomy should be tailored to the age and fitness of the patient together with the location and stage of the cancer.
- 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.
- 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.
- 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.
- In-hospital mortality should be less than 5%.
- Patients undergoing a total gastrectomy should have a jejunostomy placed intra-operatively or be considered for parenteral nutrition.
- The potential for laparoscopic gastrectomy should be considered by the MDT.

Adjuvant regimen

Cisplatin/Fp

2 cycles pre-operatively

Cisplatin  60–80mg/m² every 21 days
Fp:
Capecitabine  625mg/m² BD continuously for 21 days
or
5FU  200mg/m² OD continuously for 21 days

6.1.2  Peri-operative chemotherapy
Peri-operative chemotherapy should be considered the optimum standard of care for gastric cancer. Patients should either be included in current clinical trials or be offered combination chemotherapy consisting of 3 cycles of ECX pre-operatively, followed by surgery and then a further 3 cycles of ECX
post-operatively. If the patient’s post-operative course is complicated, the post-operative chemotherapy may be delayed till 12 weeks after surgery. If the delay is longer than this, the post-operative phase should be omitted. Patients should receive nutritional assessment by a specialist oesophago-gastric dietitian, with consideration of a feeding tube as appropriate.

**Adjuvant regimen**

**Cisplatin/Fp**

2 cycles pre-operatively

Cisplatin 60–80mg/m² every 21 days

Fp:

Capecitabine 625mg/m² BD continuously for 21 days

or

5FU 200mg/m² OD continuously for 21 days

**6.1.3 Radiotherapy**

Radiotherapy may be used palliatively in the management of OG cancers for symptom relief, dysphagia, pain and possibly bleeding.

Doses and fractionation will vary from centre to centre and will also depend upon the patient’s clinical condition.

Treatment should be planned using either orthogonal or virtual simulation and treatment dosed to either the mid-plane or isocentre.

Radiotherapy doses and fractionation may include 8Gy x 1# for 1 day, 20Gy x 5# for 5 days, 27Gy x 6# for 21 days but each centre will have differing palliative regimes.

**Regimens concomitant with radiotherapy**

It is recognised that local practice varies and dosage for the following is discreional.

Fp (5FU or capecitabine)

Fp + cisplatin

FOLFOX

Fp – 5FU/capecitabine

Platinum – oxaliplatin/cisplatin/carboplatin

All patients should be referred to the specialist OG cancer dietitian for nutritional assessment and consideration of a radiologically inserted gastrostomy (RIG).

Patients should receive weekly nutritional assessments by the dietitian throughout their radiotherapy treatment, with ongoing follow-up until treatment-related nutritional problems resolve.
6.2 Palliative treatment

6.2.1 Inoperable, locally advanced or metastatic gastric cancer

There is evidence for a survival and quality of life benefit from chemotherapy in patients with metastatic disease. The diagnosis and treatment options (including possible trial entry) should be discussed with patients when they attend clinic. Patients with metastatic disease should be referred for consideration of palliative chemotherapy.

The current standard of trial regimen is EOX (or ECX or ECF) for patients of good performance status (0–2).

In HER2-positive tumours, the standard of care is trastuzumab in combination with cisplatin and fluoropyrimidine (5FU or capecitabine) provided there are no contraindications.

Patients should receive nutritional assessment, ideally by a specialist OG cancer dietitian. Where this is not currently possible, the assessing and treating dietitian should be a cancer specialist and, at minimum, working at a senior level and able to access specialist support and advice.

Disease response should be reassessed every 3–4 cycles:

• Computerised tomography (CT) scan – chest, abdomen and pelvis.
• If stable disease or partial response, and the patient is tolerating treatment, continue for further 4 cycles (8 in total).
• Once a patient’s initial treatment is complete and at other significant steps in their journey, they should be offered a holistic needs assessment in line with the survivorship guidelines (see Chapter 9).
• Community specialist palliative care support should be discussed with all patients diagnosed with metastatic disease at the earliest opportunity and a timely referral made.
• Symptom control recommendations should be made in line with the Palliative Care Adult Network Guidelines, 3rd edition, 2011 which can be found at http://book.pallcare.info/

6.2.2 Endoscopic palliation of gastric cancer

Indications for endoscopic palliation of gastric cancer include patients with evidence of gastric outflow obstruction in the following categories:

• decompression with a view to surgery
• palliation in inoperable disease.

6.2.3 Disease progression

• In the event of early treatment failure (on chemotherapy or within 6 months of completing treatment), there is currently no standard second-line therapy.
• Consideration should be given to treatment within phase I/II clinical trials.
• If there is a relatively long progression-free interval after discontinuation of chemotherapy (>3 months), then consideration can be given to re-challenging with standard treatment. This is at the discretion of the consultant.
• If no further lines of treatment can be offered, patients should not continue routine clinic follow-up.
• Patients and carers should be aware that the team may be contacted should the need arise. Ensure that appropriate home/palliative care support is arranged for all patients.
• Ensure that all patients are offered community palliative care support and that a timely referral is made where appropriate.

Locally advanced/metastatic regimens

Please note that treatment combinations may vary depending upon the underlying histological diagnosis.

**EOFp**

6–8 cycles

Epirubicin  50mg/m² every 21 days
Oxaliplatin  130mg/m² every 21 days

Fp:
Capecitabine  625mg/m² BD continuously for 21 days
or
SFU  200mg/m² OD continuously for 21 days

**Platinum/Fp/trastuzumab (if HER2-positive)**

6 cycles chemotherapy and continue with 3-weekly trastuzumab

Trastuzumab  8mg/kg loading dose, then 6mg/kg 3-weekly

Fp:
SFU  800mg/m² every 21 days
or
Capecitabine  1000mg/m² BD 14/21 days
Cisplatin  80mg/m² every 21 days

**Docetaxel/irinotecan**

6–8 cycles depending upon response and toxicity

Docetaxel  60mg/m² every 21 days
Irinotecan  250mg/m² every 21 days

**FOLFIRI**

6–8 cycles depending upon response and toxicity

Irinotecan  180mg/m² every 14 days
SFU bolus  400mg/m² every 14 days
SFU infuser  2400mg/m² over 46 hours every 14 days
**MMC/capecitabine**

6 cycles of capecitabine (3 injections of MMC)

Mitomycin C 7mg/m² every 6 weeks

Capecitabine 1000–1250mg/m² twice daily for 14 days. Repeat every 21 days

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1 In the context of this chapter, Fp stands for fluoropyrimidine and refers to either/both 5FU and/or capecitabine.
7 Nutrition

7.1 Introduction

Patients presenting with OG cancer can have significant nutritional problems, due to the anatomical locality of the cancer, the disease process and its treatments. Symptoms at presentation include weight loss, dysphagia, early satiety, loss of appetite, odynophagia, nausea and vomiting, all of which can impact negatively on nutritional status. Being overweight or obese is a risk factor for oesophageal cancer and this may mask the problem of weight loss in such patients; therefore careful nutritional assessment is important. Malnutrition is associated with poorer treatment and patient-centred outcomes. The specialist OG cancer dietitian is a key member of the specialist multidisciplinary teams, and it is recommended that nutrition be incorporated across the treatment pathway.

7.2 Presentation

At presentation all patients should have nutritional assessment carried out by a dietitian. This should ideally be by a specialist OG dietitian. Where this is not currently possible, the assessing dietitian should be a cancer specialist and, at minimum, working at a senior level and able to access specialist support and advice. Most patients will need dietary and symptom management advice and nutritional supplement while some may need nutritional support with enteral nutrition (either naso-enteric, gastrostomy or jejunostomy). There should be close liaison across the pathway, between the specialist centre and local and community services.

Patients undergoing oesophagectomy with cervical anastomosis should be considered for referral to speech and language therapy for pre-operative screening and counselling to consider the potential for oro-pharyngeal dysphagia and voice changes post-surgery.

7.3 Nutrition on treatment

- Patients undergoing surgery should receive nutritional assessment by a specialist OG dietitian at diagnosis, with ongoing assessment during peri-operative chemotherapy/chemo-radiotherapy, post-surgery and in long-term post-operative follow-up.
- All patients undergoing surgery should be considered for pre-operative immunonutrition and carbohydrate loading.
- Patients undergoing oesophagectomy should be considered for placement of a jejunostomy feeding tube during surgery. This will help minimise weight loss and deterioration in nutritional status post-operatively. Patients should always be assessed by a specialist OG cancer dietitian at the specialist centre before a jejunostomy tube is removed.
- Patients undergoing total gastrectomy should be considered for placement of a jejunostomy feeding tube during surgery. Where no jejunostomy is placed, the patient should be considered for parenteral nutrition.
- Patients receiving radical chemo-radiotherapy should receive a weekly nutritional assessment by the specialist OG cancer dietitian throughout their radiotherapy treatment, with ongoing follow-up until treatment-related nutritional problems resolve.
• Patients should receive regular nutritional assessment by the treating dietitian throughout their chemotherapy treatment, with ongoing follow-up until treatment-related nutritional problems resolve.

• Patients with significant dysphagia or weight loss may benefit from enteral feeding.

• Patients who have undergone oesophagectomy with cervical anastomosis should be assessed by a speech and language therapist for oro-pharyngeal dysphagia and aspiration risk.

7.4 Nutrition on palliative treatment

All patients undergoing palliative treatment should receive nutritional assessment by a senior dietitian. This should ideally be a specialist OG cancer dietitian, but where this is currently not possible, the assessing and treating dietitian should be a cancer specialist, and at minimum working at a senior level and be able to access specialist support and advice. Most patients will need dietary and symptom management advice and nutritional supplements. Some patients will benefit from enteral nutrition (either naso-enteric, gastrostomy or jejunostomy). The final decision should be made by the multidisciplinary team.
8 Follow-up on Completion of Treatment

Where appropriate, patients will remain under the care of the unit for symptomatic and palliative care and patients will be referred back to the unit from the centre if such care is best delivered by them. In particular, patients with advanced disease will be followed up by the local multidisciplinary team (MDT) at their local unit either in a hospital or community setting, as appropriate. Patients with operable disease and radical patients will be followed up at the centre according to guidelines (5 years).

Correspondence relating to the patient’s onward journey is received regularly from the centre and is fed-back to the MDT team at the unit. Where appropriate, the local team will participate in long-term outpatient, endoscopic and palliative care follow-up.

The follow-up of patients with OG cancer is controversial. There is no evidence that intensive follow-up improves the speed of detection of recurrent disease in OG cancers. Patients should receive regular post-treatment dietetic review and ongoing access to an appropriately trained and supported dietitian.

The biology of both diseases is such that the majority of patients are on active treatment with the minority attending for symptomatic review.

The aims of follow-up are:

- to detect disorders of function related either to recurrent disease or benign complications of treatment
- to assess and manage nutritional problems
- to provide psycho-social support for patients and their carers; this includes appropriate medical measures in liaison with palliative care
- to facilitate audit of treatment outcome
- to pursue the criteria of a trial protocol.

The frequency of follow-up should be:

- 2 weeks post discharge.
- regular follow-up within the 1st year – the frequency of this will be determined by the post-treatment symptoms/problems
- 6-monthly for 2 years
- 12-monthly until 5 years total.

As survival tends to plateau at 5 years, such patients should then be discharged.

The approach to follow-up should be uniform irrespective of discipline and allow for assessment of the following:

- symptoms: dysphagia, poor appetite, nausea and vomiting, regurgitation, diarrhoea, steatorrhoea, dyspepsia/reflux/bile reflux, dumping syndrome, delayed gastric emptying, bloating, fatigue, lethargy, low mood/depression
- weight
- performance status and quality of life.
Investigations should include assessment of possible nutritional deficiencies:

- full blood count
- iron and iron bindings
- vitamin B12 (methylmalonic acid)
- folate
- vitamin D and zinc.

Patients following total gastrectomy should receive 3-monthly vitamin B12 injections. Patients following oesophagectomy and subtotal gastrectomy are at risk of vitamin B12 deficiency and should be assessed regularly for this. If deficient, they should also receive vitamin B12 injections rather than oral supplementation.

Iron deficiency is also common. Intravenous iron infusions should be considered when levels do not respond to oral iron supplements.

Endoscopic surveillance should be considered on an annual basis for those treated by subtotal gastrectomy.

The role of computerised tomography (CT) scanning in screening for recurrence is uncertain and could be considered a subject for a clinical trial; no routine post-operative or follow-up CTs are therefore specified. However, in patients where there may be radical treatment options available, follow-up CT scans for up to 3 years may be considered at local discretion.

Follow-up should be within the context of an MDT clinic to avoid duplication of examinations and investigations with associated inconvenience to the patient.

A specialist OG cancer dietitian should be present in all surgical and oncology follow-up clinics. Where this is not currently possible, appropriate referral mechanisms to ensure that there is timely patient-led assessment and intervention are essential.

The dietitian has a vital role in managing ongoing nutritional issues and supporting patients throughout recovery and survivorship and should be adequately trained and supported to do so.

The role and integration of primary care is essential to follow-up and consideration should be given to the development of shared care protocols.

Clinical nurse specialists have an essential role in coordinating follow-up and should include patient contact at home for general support and toxicity assessment.

Patients should be able to seek help between review appointments if they are concerned and the clinical nurse specialist should be their point of contact to ensure continuity of care.

Depending on the problem, patients will be seen by any one of the specialists in the clinic. Referral to other agencies, for example the palliative care team, speech and language therapy, physiotherapy and the social worker, will be facilitated during this time.

The importance of rapid communication of information between secondary and primary care and other community-based services is important, and all agencies must be kept informed.
9 OG Cancer Survivorship Guidelines

As cancer treatments become more effective, more people are living with and beyond cancer with specific needs as a direct result of the cancer and its treatment. The consequences of cancer treatment are dependent on multiple factors and affect each person differently. Consequences may be physical (e.g. cardiovascular conditions, impact on fertility, bone health and gastrointestinal); emotional and psychological (e.g. anxiety, self-confidence and depression); social; spiritual; or cognitive. They can have an impact on every aspect of a person and on their family’s lives, from the ability to work, through to the ability to have a family or to participate in social activities. It is widely acknowledged that cancer survivors have a multitude of unmet needs following treatment, with a majority still having some needs 6 months later. Good survivorship care enables the person to live as full and active a life as possible.

Survivorship can be defined as:

“cover[ing] the physical, psychological and economic issues of cancer, from diagnosis until end of life. It focuses on the health and life of a person with cancer beyond the diagnosis and treatment phases. Survivorship includes issues related to the ability to get health care and follow-up treatment, late effects of treatment, second cancer and quality of life. Family members, friends and caregivers are also part of the survivorship experiences.”

National Cancer Institute, Dictionary of Cancer Terms, definition of ‘survivorship’ (www.cancer.gov/dictionary?CdrID=445089)

The National Cancer Survivorship Initiative (NCSI) vision document\(^1\) mandated five shifts in care for individuals completing cancer treatment. NCSI advocates cancer being treated as a chronic illness, with patients empowered and supported to take an active role in their care. Improving Outcomes: a Strategy for Cancer\(^2\) states that people living with and beyond a cancer diagnosis should have their full needs addressed to prevent long-term disability, enabling them to live a full, active, good quality life for as long as possible. Work within the NCSI has to date focused on survivorship from the end of treatment, but its report, Living With and Beyond Cancer: Taking Action to Improve Outcomes,\(^3\) acknowledges that survivorship care from the point of diagnosis is also vital. It challenges services to develop further and focuses on five new areas:

- information and support from diagnosis
- promoting recovery
- sustaining recovery
- managing consequences
- supporting people with active and advanced disease.

The importance of good survivorship care is well known: those who have unmet needs are 20% more likely to visit their GP and twice as likely to attend A&E than age-matched healthy people. They are more likely to be unemployed and many report economic hardship. Much has been achieved both nationally and locally to address this agenda. It is essential that in the LCA our patients have access to high-quality, equitable survivorship services on a par with the best in the country. We will continue to build on the successes to date.
The Consequences of Cancer and its Treatment (CCaT) collaborative group (a Macmillan Community of Interest) produced a guidance document that includes ‘10 Top Tips’ for patients. These cover the key components of good survivorship care, and the LCA expects services to address these areas. The following nine points for professionals are based on the CCaT’s work.

9.1 Discuss a person’s needs

The holistic needs assessment (HNA) has been shown to be effective in identifying a person’s areas of concern. It can take many forms and the LCA has developed its own tool, based on the concerns checklist and distress thermometer. The tool allows patients to specify what is of most concern to them, and so directs subsequent discussion and intervention to addressing these needs. It has scope to cover physical, emotional, spiritual, finance and welfare, and practical concerns. It is anticipated that as the HNA becomes embedded within the pathway, patients will start to ask for an HNA and professionals need to be able to respond to this.

**Recommendation:** Every patient should be offered an HNA at key pathway points, including at diagnosis and end of treatment, and whenever a person requests one.

9.2 Provide a treatment summary and care plan

A treatment summary provides a summary of the cancer treatments received by the end of first treatment, planned follow-ups (including mechanisms for these) and signs and symptoms of which to be aware. The aim is to provide information not only to the patient but also to the GP about possible consequences of cancer and its treatment, signs of recurrence and other important information.

A care plan is generated as a result of an HNA and is the agreed plan between the patient and healthcare professional about how the identified areas of concern will be addressed. This may cover provision of information (e.g. through an information prescription), onward referral for specialist assessment and intervention (e.g. breathlessness management), or things which the patient themselves can do (e.g. contact their HR department about graduated return to work options).

**Recommendation:** An end of treatment consultation should be offered to every patient. This should include an end of treatment HNA and associated written care plan, and should also include the discussion and provision of a comprehensive treatment summary.

9.3 Provide a main contact

Several pieces of UK-wide work have shown the necessity of a key contact, or key worker, not least the national Cancer Patient Experience Survey. It is now agreed that both patients and GPs (and other healthcare professionals) benefit from having a named person to contact if they need help or advice about issues related to the consequences of cancer and its treatment.

**Recommendation:** The treatment summary should include the details of a key worker in addition to details of who to contact out of hours. This should be sent to the GP, the patient and any others the patient identifies as necessary.
9.4 Identify post-treatment symptoms

As discussed above, cancer and its treatments can have far-reaching consequences and people with associated unmet needs are more likely to access healthcare services than their healthy counterparts. Providing information on likely post-treatment symptoms (e.g. early lymphoedema or faecal incontinence) and how these can be managed or avoided, allows people to seek the right help from the right people at the right time.

**Recommendation:** Information on anticipated or possible consequences of cancer treatment and what to do if they occur should be routinely provided to all patients. This should be done from the time of discussion of treatment onwards, with the information clearly reiterated during the end of treatment consultation.

It is well documented that quality of life can be compromised after OG cancer surgery and the side effects experienced impact greatly on this. Symptom management is important to minimise impairment in quality of life. Follow-up should include symptom assessment and acknowledge the role of nutrition, dietary modifications and pharmacology in their management.

9.5 Provide support about day-to-day concerns

Life changes following a cancer diagnosis. It is recognised that people need help and support to find a ‘new normal’. This may cover any one of a multitude of aspects, from work and education, through to financial worries and needing help with caring responsibilities. Help should be offered at all key points in the pathway, but may be of particular relevance at the end of treatment and may well be highlighted in the HNA. There are various options for written information provision (e.g. Macmillan Cancer Support information leaflets and information prescriptions) as well as some specialist services (e.g. Citizens Advice). Reports published by the NCSI, available on the NCSI website, may be of use to professionals.

**Recommendation:** Patients should be routinely asked about whether they need support with day-to-day issues and referrals made to specialist services when necessary.

9.6 Talk about how you feel

Having a cancer diagnosis has an emotional impact, and at the end of treatment people experience a wide range of emotions. Sometimes, these can be dealt with by the person alone or with support from the key worker and others, but some people will need referral to psychological support services. This may be true for not only patients but their family and carers too.

**Recommendation:** Use an HNA to identify emotional concerns. Further screening tools (e.g. the Hospital Anxiety and Depression Scale) should be considered, with subsequent referrals made as necessary.

9.7 Healthy lifestyle

There is a growing body of evidence which supports the adoption of a healthy lifestyle for those who have had a cancer diagnosis.
9.7.1 Smoking cessation

Tobacco smoking is the main cause of preventable morbidity and premature death in England. Smoking is a main risk factor for developing oesophageal and gastric cancer and it is likely that a high proportion of patients will be smokers prior to their diagnosis. End of treatment provides an opportunity to deliver stop smoking interventions at a point at which an individual may be more susceptible to health advice and hence more motivated to quit.

**Recommendation:** All current smokers should be asked about their smoking habit and offered smoking cessation advice with onward referral to local services as necessary.

9.7.2 Diet

The role that diet can play in cancer incidence has been widely documented. Research has now moved to look at its influence beyond treatment. The nutritional issues during or following treatment include weight loss or gain; changes in body composition (e.g. loss of muscle mass); and particular eating difficulties (e.g. swallowing problems and limited capacity for food). There are also long-term symptoms (e.g. changes in bowel habits for those who have had pelvic radiotherapy).

Receiving advice from an appropriately trained professional has been shown to improve quality of life, reduce risk of recurrence and risk of developing a new primary or other chronic disease, such as heart disease or diabetes. The aim of dietary advice is also to counter the adverse effects of cancer treatment. To date, most of the work has been done in breast, colorectal and prostate cancer. The WCRF\(^4\) recommends the following for all cancer survivors:

1. Be as lean as possible within the normal body weight range.
2. Be physically active as part of everyday life.
3. Avoid sugary drinks and limit the consumption of energy-dense foods.
4. Eat mostly foods of plant origin.
5. Limit intake of red meat and avoid processed meat.
7. Limit consumption of salt. Avoid mouldy cereals or pulses.
8. Aim to meet nutritional needs by diet alone.

**Recommendation:** Patients should be assessed individually regarding appropriate dietary advice following treatment for OG cancer by a registered dietitian. The dietitian should either be specialised in OG cancer or have ready access to such for advice. Weight loss and nutritional difficulties are common, not only during treatment but also during follow-up, and therefore dietary advice should be tailored to individual patients’ needs. Dietary advice, based on the WCRF recommendations, should be considered when weight loss and nutritional difficulties have resolved and are no longer impacting on quality of life. Post-surgery deficiencies will need to be considered in addition to this advice.
9.7.3 Physical activity

There has been a dramatic rise in the amount of high-quality published research on the role of exercise in cancer in recent years. Physical activity results in improvement in quality of life, fitness and function and symptoms related to cancer and its treatments. It reduces cancer recurrence, incidence of second cancers and reduces both all-cause and cancer-specific mortality.

There is wide consensus that cancer survivors should exercise to the same level as the general population for health benefits. Research suggests that a combination of cardiovascular and muscular strength training has additional benefits over undertaking only one type of exercise.

**Recommendations:** Patients should be encouraged to maintain or increase their level of physical activity both during and after treatment in line with national guidance. They should be referred for specialist assessment by a physiotherapist as necessary.

Patients should also be offered access to a health promotion event, such as a health and well-being clinic, at the end of treatment.

9.8 Self-managed follow-up

There is a move towards increased self-management and follow-up closer to home. This has clear benefits to patients, including reduced anxiety in the lead-up to routine appointments and less interference in their day-to-day life caused by travelling to hospitals. In addition, research has shown that recurrence is more likely to be detected by the patient themselves between appointments, rather than at the outpatient appointment. By reducing unnecessary appointments, Trusts are able to see new patients more quickly and spend more time with more complex patients.

For self-management to be effective, patients need to be given the right information about the signs and symptoms of recurrence and clear pathways to follow if they have concerns. They should also be guaranteed a fast, explicit route to re-access services if necessary. A telephone helpline is suggested, which should be staffed by senior, experienced staff.

**Recommendation:** In addition to the use of treatment summaries (as described above), services should investigate the feasibility of rolling out self-managed/patient-led follow-up.

9.9 Encourage survivors to share their experience

Sharing the experience of living with and beyond cancer can be beneficial to the patients themselves, their carers and others who have a cancer experience. Providing feedback on their experience, and volunteering and participation in research can all have a positive impact on the patient.

**Recommendation:** Patients should be offered information about local support groups and where they can access further information on sharing their experiences.

To summarise, these guidelines set out how to best address survivorship care, based on best available evidence, current national policy and guidance and in response to work such as the national Cancer Patient Experience Survey.


10 Audit

The assessment and evaluation of outcomes is a fundamental component of the management of OG cancer and was highlighted in the Improving Outcomes Guidance. This process is continuous and should be based around the multidisciplinary team (MDT). In addition to core clinical information, the MDT should record clinical and pathological stage and details of co-morbidity and performance status and patient-reported outcomes.

All patients should be entered into The National Oesophago-Gastric Cancer Audit (NOGCA). Output from the NOGCA should be reviewed regularly at unit and integrated cancer service level. Recording of patient data is resource intensive and units and the specialist centres should have appropriate and adequate support. This specifically includes data managers and functional data systems linked to both the NOGCA and the National Cancer Registration Service.
11 Clinical Research

Involvement in clinical research protocols should be considered for all patients. The most appropriate time to consider inclusion into trials is at the multidisciplinary team meeting. This is applicable at both unit and specialist centre level to allow consideration of both national and local protocols. The role of research staff is crucial, with close links to the National Cancer Research Network.

There are great opportunities for research made available from this LCA collaboration, for example collaborative clinical research based on large clinical cohorts or randomised clinical trials as well as molecular studies based on the collection of tumour specimens and blood. The LCA setting could create a very valuable platform for large-scale clinical OG cancer research of high validity.
Appendix 1: Urgent Suspected Upper GI Cancers Referral Forms

South West London Referral Form

<table>
<thead>
<tr>
<th>SOUTH WEST LONDON CANCER NETWORK</th>
<th>Suspected Upper GI Cancers Referral Form (NICE 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgent Referrals Criteria (Please tick category):</td>
<td>Date of GP Decision to Refer:</td>
</tr>
<tr>
<td>UGI 1 Patients of any age with dyspepsia AND</td>
<td>No of Pages Faxed:</td>
</tr>
<tr>
<td>with any of the following:</td>
<td></td>
</tr>
<tr>
<td>• Chronic GI bleeding</td>
<td>GP DETAILS</td>
</tr>
<tr>
<td>• Dysphagia</td>
<td>GP Name &amp; Initials:</td>
</tr>
<tr>
<td>• Progressive unintentional weight loss</td>
<td>Address:</td>
</tr>
<tr>
<td>• Persistent vomiting</td>
<td>Telephone No:</td>
</tr>
<tr>
<td>• Iron deficiency anaemia</td>
<td>Fax No:</td>
</tr>
<tr>
<td>• Epigastric mass</td>
<td></td>
</tr>
<tr>
<td>• Suspicuous barium meal result</td>
<td></td>
</tr>
<tr>
<td>UGI 2 Patients aged over 55 with unexplained persistent recent onset dyspepsia</td>
<td></td>
</tr>
<tr>
<td>UGI 3 Dyspepsia that occurs within 5 seconds of having commenced swallowing</td>
<td></td>
</tr>
<tr>
<td>UGI 4 Unexplained weight loss (and no dyspepsia)</td>
<td></td>
</tr>
<tr>
<td>UGI 5 Iron deficiency anaemia (and no dyspepsia)</td>
<td></td>
</tr>
<tr>
<td>UGI 6 Persistent vomiting and weight loss (and no dyspepsia)</td>
<td></td>
</tr>
<tr>
<td>UGI 7 Patients presenting with:</td>
<td>PATIENT DETAILS</td>
</tr>
<tr>
<td>• Unexplained upper abdominal pain and weight loss (+/- back pain)</td>
<td>Last Name:</td>
</tr>
<tr>
<td>• An upper abdominal mass (+/- dyspepsia)</td>
<td>Address:</td>
</tr>
<tr>
<td>UGI 8 Obstructive jaundice</td>
<td>Daytime Tel or Mobile:</td>
</tr>
<tr>
<td>UGI 9 Dysphagia</td>
<td>Gender: M ☐ F ☐</td>
</tr>
<tr>
<td></td>
<td>Date of Birth:</td>
</tr>
<tr>
<td></td>
<td>Interpreter required? Y / N</td>
</tr>
<tr>
<td></td>
<td>Language:</td>
</tr>
<tr>
<td></td>
<td>Ethnicity:</td>
</tr>
<tr>
<td></td>
<td>Hospital No:</td>
</tr>
<tr>
<td></td>
<td>NHS No:</td>
</tr>
</tbody>
</table>

Comments/Other Reasons for Urgent Referral

1. Has the patient been made aware of the nature of their referral? Yes ☑ No ☐
2. Has the patient been supplied with supportive information about the Urgent Suspected Cancer referral process? Yes ☑ No ☐
3. Have you asked the patient if they will be available to attend an appointment within the next two weeks? Yes ☑ No ☐
4. Has the patient indicated to you that they would be available to attend an appointment within the next two weeks? Yes ☑ No ☐

South West London Cancer Network

How to make urgent referrals for suspected upper GI cancers

Please FAX / EMAIL this form to the Cancer Office at the relevant hospital, with or without an accompanying letter. E-Mails MUST be sent from a NHS.net address. Please ensure that the referral reaches the hospital within 24 hours of the GP’s decision to refer.
SOUTHEAST LONDON CANCER NETWORK
Upper GI Urgent Suspected Cancer Referral

Please tick the box of the hospital clinic you are referring to and fax this form to the relevant Urgent Referral Team within 24 hours. Guidelines are on the reverse side.

SECTION 1 – PATIENT INFORMATION. PLEASE COMPLETE IN BLOCK CAPITALS.

SURNAME

Patient visited this hospital before? Y / N

FIRST NAME

NHS Number

Hospital Number

Gender M / F

D.O.B.

Patient aware the referral is urgent? Y / N

Address

First language

Interpreter required? Y / N

Transport required? Y / N

Daytime Telephone

Home Telephone (if different) / Mobile No.

SECTION 2 – PRACTICE INFORMATION. USE PRACTICE STAMP IF AVAILABLE.

Referring GP

Date of referral

Practice Address

Post Code

Telephone

Fax

SECTION 3 – CLINICAL INFORMATION. PLEASE TICK THE RELEVANT BOXES.

Symptoms

Dysphagia

Persistent vomiting

Worsening dyspepsia

Age > 55 years, unexplained and persistent (4-6 weeks) recent-onset dyspepsia

Unexplained upper abdominal pain and weight loss, with or without back pain

Clinical Examination & Results

Epigastric / abdominal mass

Hepatomegaly

Obstructive jaundice

Ultrasound scan? Y / N

Barrett's oesophagus

Known dysplasia, atrophic gastritis or intestinal metaplasia

Peptic ulcer surgery

Risk Factors

Chronic G1 bleeding

Progressive unintentional weight loss

Iron deficiency anaemia

Gastric cancer

Additional information

History

Previous investigation of upper GI tract

Location

Location

Diagnosis

Continue on separate sheet, and attach patient computer record summary if available.

SOUTH EAST LONDON CANCER NETWORK
Information to support Upper GI referrals

Refer urgently patients:

- Dysphagia
- Unexplained upper abdominal pain and weight loss, with or without back pain
- Upper abdominal mass with or without dyspepsia
- Obstructive jaundice (depending on clinical state)
- Patients of any age with dyspepsia and any of the following
  - Chronic gastrointestinal bleeding
  - Progressive unintentional weight loss
  - Persistent vomiting
  - Iron deficiency anaemia
  - Epigastric mass
  - Suspicious barium meal result
- Patients aged 55 years and older with unexplained and persistent recent-onset dyspepsia alone.

Consider an urgent referral for patients presenting with:
- Persistent vomiting and weight loss in the absence of dyspepsia
- Unexplained weight loss or iron deficiency anaemia in the absence of dyspepsia
- Unexplained worsening of dyspepsia and any of the following
  - Chronic gastrointestinal bleeding
  - Progressive unintentional weight loss
  - Iron deficiency anaemia
  - Epigastric mass
  - Barrett's oesophagus
  - Known dysplasia, atrophic gastritis or intestinal metaplasia
  - Peptic ulcer surgery over 20 years ago.

Use this proforma to refer urgently (2 Week Wait)

Investigations in Primary Care:

- When referring, a full blood count may assist specialist assessment in the outpatient clinic. This should be carried out in accordance with local arrangements.
- For all patients with new-onset dyspepsia, consider a full blood count to detect iron deficiency anaemia.

Patient information and support:

Consider the information and support needs of patients and the people who care for them while they are waiting for the referral appointment. Resources for GPs to use are available from the Cancer Network on 020 7188 7090, or visit our website www.selcn.nhs.uk.

Approved by the South East London Cancer Network in July 2012

For comments or additional copies contact the Network on Tel 020 7188 7090 / Fax 020 7188 7120 or visit our website www.selcn.nhs.uk.
## URGENT SUSPECTED UPPER GI CANCER REFERRAL FORM

Please ensure that this form is attached to your choose and book referral.

**Consultant/Hospital to which patient is being referred:**

**Patient details**

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname:</td>
<td></td>
</tr>
<tr>
<td>First Name:</td>
<td></td>
</tr>
<tr>
<td>Age / D.O.B:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Postcode:</td>
<td></td>
</tr>
<tr>
<td>Date of decision to refer:</td>
<td></td>
</tr>
<tr>
<td>Tel day:</td>
<td></td>
</tr>
<tr>
<td>Tel eve:</td>
<td></td>
</tr>
<tr>
<td>Signature:</td>
<td></td>
</tr>
</tbody>
</table>

**GP Details**

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
</tbody>
</table>

**Have you informed the patient that you suspect upper gi cancer?**

- [ ] Y
- [ ] N

**Have you given the patient the 2WW information leaflet**

- [ ] Y
- [ ] N

**Has the patient had a previous diagnosis of cancer?**

- [ ] Y
- [ ] N (Specify if known)

**Has the patient previously visited this hospital?**

- [ ] Y
- [ ] N

**Hospital number (if known):**

- [ ]

---

**Symptoms and Clinical Findings**

**NB:** 55 years + recent onset of dyspepsia, refer for gastroscopy first usually

<table>
<thead>
<tr>
<th>Symptom</th>
<th>[ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysphagia</td>
<td></td>
</tr>
<tr>
<td>Persistent vomiting &amp; weight loss</td>
<td></td>
</tr>
<tr>
<td>Unexplained iron deficiency anaemia</td>
<td></td>
</tr>
<tr>
<td>Unexplained weight loss</td>
<td></td>
</tr>
<tr>
<td>Unexplained abdominal pain and weight loss</td>
<td></td>
</tr>
<tr>
<td>Upper abdominal mass</td>
<td></td>
</tr>
<tr>
<td>Obstructive jaundice – US if possible</td>
<td></td>
</tr>
</tbody>
</table>

**Duration of symptoms**: …………………………… ………

**Helicobacter Pylori Status**

- [ ] Positive
- [ ] Negative
- [ ] Not Tested

**RISK FACTORS**

- [ ] Barrett’s oesophagus
- [ ] Known dysplasia
- [ ] Atrophic gastritis or intestinal metaplasia
- [ ] > 20 years peptic ulcer surgery
- [ ] Known smoker or ex smoker

**Additional Clinical Information**: Include any investigations arranged or results obtained, and any other information you think relevant.

---

Please ensure this form is received in the Trust within 24 hours of GP decision to refer.

Latest version of the form is available at [www.nwlcn.nhs.uk](http://www.nwlcn.nhs.uk)

Version 3.8

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**North West London Referral Form**

- **North West London Hospitals NHS Trust**
  - Fax: 020 8235 4188
  - Tel: 020 8235 4293

- **Imperial College Healthcare NHS Trust**
  - Fax: 020 3312 1580
  - Tel: 020 3312 1527

- **Chelsea and Westminster NHS Foundation Trust**
  - Fax: 020 3315 8814
  - Tel: 020 3315 2637

- **Ealing Hospital NHS Trust**
  - Fax: 020 8967 5005
  - Tel: 020 8967 5000, x3921

- **Hillingdon Hospital NHS Trust**
  - 2WW fax line: 01895 279807
  - Tel: 01895 279549
  - Alternate Fax: 01895 279215

- **West Middlesex University Hospital NHS Trust**
  - Fax: 020 8321 5157
  - Tel: 020 8321 6776

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Appendix 2: Endoscopic Reporting of Suspected Oesophago-gastric Malignancy

Please ensure the following information is recorded in the report.

### Suspected oesophageal cancer

<table>
<thead>
<tr>
<th>Location</th>
<th>Tumour morphology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumour upper margin (from incisors)</td>
<td>Polypoid/cicatrising/nodular/submusocical</td>
</tr>
<tr>
<td>Able to pass scope through</td>
<td>For early lesions:</td>
</tr>
<tr>
<td>Luminal diameter</td>
<td>Type 1(elevated)</td>
</tr>
<tr>
<td>Tumour lower margin (from incisors)</td>
<td>Type 2a(flat elevated)</td>
</tr>
<tr>
<td>Hiatus hernia</td>
<td>Type 2b(completely flat)</td>
</tr>
<tr>
<td>Barrett’s (Prague classification)</td>
<td>Type 2c (flat depressed)</td>
</tr>
<tr>
<td>Gastrooesophageal junction (from incisors)</td>
<td>Type 3(ulcerated)</td>
</tr>
<tr>
<td>Presence of oesophageal fistula and organ involvement</td>
<td></td>
</tr>
</tbody>
</table>

### Suspected gastric cancer

<table>
<thead>
<tr>
<th>Location</th>
<th>Tumour morphology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroesophageal junction, fundus, body (Lesser curve, greater curve, anterior, posterior), antrum, pylorus</td>
<td>Polypoid/cicatrising/nodular/submusocical</td>
</tr>
<tr>
<td>Size: Maximum diameter</td>
<td>For early lesions:</td>
</tr>
<tr>
<td>Associated features:</td>
<td>Type 1(elevated)</td>
</tr>
<tr>
<td>Haemorrhagic with spontaneous haemorrhage?</td>
<td>Type 2a(flat elevated)</td>
</tr>
<tr>
<td>Gastric outflow obstruction</td>
<td>Type 2b(completely flat)</td>
</tr>
<tr>
<td>H. pylori status</td>
<td>Type 2c (flat depressed)</td>
</tr>
<tr>
<td></td>
<td>Type 3(ulcerated)</td>
</tr>
</tbody>
</table>

### Suspected duodenal tumours

<table>
<thead>
<tr>
<th>Location</th>
<th>Tumour morphology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulb, D1/2 junction</td>
<td>Polypoid/cicatrising/nodular/submusocical</td>
</tr>
<tr>
<td>Anterior posterior superior</td>
<td>For early lesions:</td>
</tr>
<tr>
<td>D2: anterior, posterior, medial or lateral</td>
<td>Type 1(elevated)</td>
</tr>
<tr>
<td>Size: Maximum diameter</td>
<td>Type 2a(flat elevated)</td>
</tr>
<tr>
<td>Ampulla of Vater involvement</td>
<td>Type 2b(completely flat)</td>
</tr>
<tr>
<td></td>
<td>Type 2c (flat depressed)</td>
</tr>
<tr>
<td></td>
<td>Type 3(ulcerated)</td>
</tr>
</tbody>
</table>
Appendix 3: Imaging Guidelines

Oesophageal cancer

<table>
<thead>
<tr>
<th>Cancer area: Upper GI</th>
<th>Cancer type: Oesophageal</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Imaging modality</th>
<th>Indications and notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Staging</td>
<td></td>
</tr>
<tr>
<td>CT thorax, abdomen and pelvis</td>
<td>All patients with oesophageal cancer diagnosed at endoscopy</td>
</tr>
<tr>
<td>EUS</td>
<td>For patients who are being considered for radical surgical resection. For detailed T and N staging and to determine the craniocaudal extent of tumour. Also to assess the depth of invasion in early tumours.</td>
</tr>
<tr>
<td>PET-CT</td>
<td>For patients who are being considered for radical therapy (surgery or chemo-radiotherapy). For the detection of occult metastases.</td>
</tr>
<tr>
<td>Surveillance</td>
<td></td>
</tr>
<tr>
<td>CT thorax, abdomen and pelvis</td>
<td>After surgical resection – CT as baseline at 3 months. CT is the primary imaging modality for follow-up. Timing of scans will depend on disease status and patient symptoms.</td>
</tr>
</tbody>
</table>

**Multidimensional CT (MDCT) technique**

- Oral contrast – 1 litre of water, 200–400ml given just prior to scan to maximise distension of the oesophagus
- 100ml IV iodinated contrast injected at 3–4ml/sec
- MDCT commenced 20–25 seconds (chest) and 70–80 seconds (abdomen and pelvis)
- Using MDCT, slice thickness will depend on the scanner capability. In general, sections are acquired at 1.25–2.5mm and reformatted at 5mm for viewing.
- Multiplanar coronal and sagittal reformats should be used to assess the length of tumour and relationship of the tumour to surrounding structures to assess resectability.

**Minimum dataset for reporting staging investigations**

All initial staging investigations should provide a tumour stage according to the TNM Classification of Malignant Tumours system.

**T: Primary tumour**

- Tumour location, estimate proximal and distal extent for GOJ. State type according to Sievert classification
• Estimation of tumor length
• Wall thickness (for a distended oesophagus, >5mm is pathological)
• Identify extension into the peri-oesophageal fat (T3 disease)
• Identify local invasion into surrounding structures (T4 disease): the trachea, main bronchi, aorta, pericardium, pleura, diaphragmatic crura.

**N: Lymph nodes**
• Identify lymph node enlargement, particularly peri-oesophageal, mediastinal and peri-gastric regions
• N1 ≤2 nodes involved; N2 2–6 nodes; N3 >6 nodes.

**M: Metastases**
• Identify the presence of metastases: liver is the most common site
• Assess for the presence of retroperitoneal and supra-clavicular lymph nodes. Coeliac lymph nodes are considered metastatic.
• Identify peritoneal deposits.

Also assess for any complications related to the tumour: perforation, fistula formation or proximal obstruction requiring stent insertion.

The reporting radiologists are encouraged to use the standardised proforma when reporting the initial staging of suspected oesophageal cancer, to facilitate data collection within the London Cancer Alliance.

**Gastric cancer**

<table>
<thead>
<tr>
<th>Imaging modality</th>
<th>Indications and notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis</strong></td>
<td>Upper GI endoscopy</td>
</tr>
<tr>
<td><strong>Staging</strong></td>
<td>CT thorax, abdomen and pelvis</td>
</tr>
<tr>
<td></td>
<td>All patients with gastric cancer diagnosed at endoscopy</td>
</tr>
<tr>
<td></td>
<td>EUS</td>
</tr>
<tr>
<td></td>
<td>For some patients to establish the depth of tumour invasion or the craniocaudal extent of disease in those patients being considered for surgical resection.</td>
</tr>
<tr>
<td><strong>Surveillance</strong></td>
<td>CT thorax, abdomen and pelvis</td>
</tr>
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<td>After surgical resection – CT as baseline at 3 months. CT is the primary imaging modality for follow-up. Timing of scans will depend on disease status and patient symptoms.</td>
</tr>
</tbody>
</table>

**MDCT technique**
• Oral contrast – 1 litre of water, 400ml given just prior to scan to maximise distension of the stomach
• 100ml IV iodinated contrast injected at 3–4ml/sec
• MDCT commenced 20–25 seconds (chest) and 70–80 seconds (abdomen and pelvis)
Using MDCT, slice thickness will depend on the scanner capability. In general, sections are acquired at 1.25–2.5mm and reformatted at 5mm for viewing.

Multiplanar coronal and sagittal reformats should be used to assess the relationship of the tumour to surrounding structures to assess resectability.

**Minimum dataset for reporting staging investigations**

All initial staging investigations should provide a tumour stage according to the TNM Classification System.

**T: Primary tumour**
- Tumour location and estimation of tumour length
- Wall thickness (for a distended stomach, >6mm is pathological)
- Identify extension into the peri-gastric fat (T3 disease)
- Identify local invasion into surrounding structures (T4 disease).

**N: Regional lymph nodes**
- Identify involved peri-gastric (regional) nodes
- N1 ≤2 nodes involved; N2 2–6 nodes; N3a 7–15 nodes; N3b >15 nodes.

**M: Metastases**
- Identify peritoneal nodularity, ascites
- Identify liver metastases; capsular deposits may be difficult to identify
- Retropancreatic and para-aortic nodes are considered M1 disease.

Also assess for any complications related to the tumour: perforation, fistula formation or proximal obstruction requiring stent insertion.

The reporting radiologists are encouraged to use the standardised proforma when reporting the initial staging of suspected gastric cancer, to facilitate data collection within the London Cancer Alliance.
Proposed LCA Oesophago CT proforma

Staging suspected oesophageal cancer

Findings CT scan dated [ ].

Primary tumour
The primary tumour is [circumferential, semi-annular, polypoidal, ulcerating, not identified with certainty].
The tumour arises at [ ] mm [above, below] the [carina, diaphragmatic hiatus].
The total craniocaudal extension is [ ] mm.
Maximum thickness of tumour measures [ ] mm.
The tumour is classified as [upper oesophageal, mid oesophageal, lower oesophageal, GOJ Type I, GOJ Type II, GOJ Type III].
The tumour is confined to, extends through] the oesophageal wall.
The invading edge of the tumour is [anterior, posterior, right lateral, left lateral].
Locally, tumour:
• is in contact with [right pleura, left pleura, right bronchus, left bronchus, carina, pericardium, aortic adventitia, right crus, left crus] due to deficient peri-oesophageal fat
  OR
• infiltrates [right pleura, left pleura, right bronchus, left bronchus, carina, pericardium, aortic adventitia, right crus, left crus].
Closest circumferential resection margin (CRM) is [anterior, right lateral, posterior, left lateral].
Proximal obstruction is [absent, present].

Lymph nodes
Peri-oesophageal: malignant nodes [absent, possibly present, definitely present].
Supraclavicular: malignant nodes [absent, possibly present, definitely present].
Mediastinum: malignant nodes [absent, possibly present, definitely present].
Left gastric territory: malignant nodes [absent, possibly present, definitely present].
Coeliac axis: malignant nodes [absent, possibly present, definitely present].
Retroperitoneal lymphadenopathy: [absent, possibly present, definitely present].

Metastatic disease
CT evidence of peritoneal involvement [absent, present].
CT evidence of metastatic disease in the liver [absent, present].
Incidental note is made of benign liver lesion [haemangioma, cyst, other].
CT evidence of pulmonary metastatic disease is [absent, present].
CT evidence of bony metastatic disease is [absent, present].

Other comments

Opinion:

Should a biopsy confirm carcinoma, the appearances indicate a T [ ] N [ ] M [ ] potential CRM [safe, at risk][upper oesophageal, mid oesophageal, lower oesophageal, GOJ Type I, GOJ Type II, GOJ Type III] tumour.
Proposed LCA Gastric CT proforma

Staging suspected gastric cancer

Findings CT scan dated [__].

Primary tumour

The primary tumour is [polypoidal, infiltrating, annular, linitis plastica type, not identified with certainty].
The tumour arises in the [cardia, fundus, body, lesser curve, greater curve, antrum, pylorus, not identified with certainty].
The tumour has a maximum length of [__] mm.
Maximum thickness of tumour measures [__] mm.
The tumour [is confined to, extends through] the gastric wall
Locally, tumour:
• is in contact with [liver, pancreas, right crus, left crus, colon] due to deficient peri-gastric fat
OR
• infiltrates [liver, pancreas, right crus, left crus, colon].

Gastric outlet obstruction is [absent, present].

Lymph nodes

Peri-oesophageal: malignant nodes [absent, possibly present, definitely present].
Supraclavicular: malignant nodes [absent, possibly present, definitely present].
Mediastinum: malignant nodes [absent, possibly present, definitely present].
Coeliac axis: malignant nodes [absent, possibly present, definitely present].
Retroperitoneal lymphadenopathy: [absent, possibly present, definitely present].

Metastatic disease

Ascites [absent, present].
Nodular peritoneal deposits [absent, present].
Metastatic disease within the liver is [absent, present].
Incidental note is made of benign liver lesion [haemangioma, cyst, other].
CT evidence of pulmonary metastatic disease is [absent, present]
CT evidence of bony metastatic disease is [absent, present].

Other comments

Opinion:

Should a biopsy confirm carcinoma, the appearances indicate a T [__] N [__] M [__] gastric primary.
Appendix 4: Histopathology Guidelines

Oesophageal cancer

- Minimum datasets for reporting tumours are used in the system of standard setting.
- Data collection, audit and feedback are provided for those involved in caring for these patients.

London Cancer Alliance histopathology laboratories have Clinical Pathology Accreditation (CPA).

These guidelines describe the core data that should be provided in histopathology reports of specimens for carcinoma of the oesophagus.

1. Certain features of these carcinomas (e.g. tumour grade, stage and resection margin status in oesophageal carcinoma) have been shown to be related to clinical outcome 1–3.

Consequently these features may be important in:

- providing prognostic information to clinicians and patients
- providing accurate data for cancer registration
- providing feedback to the surgeon on the quality of the resection
- potentially selecting patients for future trials of adjuvant therapy
- auditing the cost-effectiveness of pre-operative staging procedures.

2. They allow the accurate and equitable comparison of surgical practice in different units and the comparison of patients in clinical trials.

The purpose of this document is to define the minimum set of data that should be provided by pathologists on resected carcinoma specimens and biopsies containing carcinoma.

Notes on recording data items

Gross description

Specimen measurements

The length of the oesophagus can be difficult to determine due to its tendency to contract. It loses a quarter of its length immediately upon removal, and can be as little as a third of its natural length if fixed without being pinned out. This should thus be specified.

Tumour measurements

Most resection specimens will consist of an oesophago-gastrectomy specimen. It is sometimes difficult to decide whether a lesion should be classified as a high gastric carcinoma with oesophageal invasion, a cardiac tumour which is straddling the gastro-oesophageal junction (GOJ), or a low oesophageal carcinoma invading the stomach. For the purposes of this dataset, a lesion is said to be an oesophageal carcinoma when more than half (measure on the mucosal aspect) is above the GOJ. The GOJ is often obvious on the mucosal surface. Sometimes, however, large tumours obliterate the junction. Alternatively, extensive Barrett’s oesophagus can make it difficult to identify the GOJ. In these situations the junction is probably most easily identified by the highest extent of the peritoneal reflection on the serosal surface.

The size and position of the tumour will allow its location with respect to the GOJ to be determined.
The macroscopic appearance of the tumour has little contribution to the prognosis, with the exception of polypoid tumours.5

All tumours should be given a Siewert type:2

- Type I: adenocarcinoma of the distal oesophagus, which usually arises from an area with specialised intestinal metaplasia of the oesophagus (i.e. Barrett’s oesophagus) and may infiltrate the oesophago-gastric junction from above.
- Type II: true carcinoma of the cardia arising immediately at the oesophago-gastric junction.
- Type III: subcardial gastric carcinoma that infiltrates the oesophago-gastric junction and distal oesophagus from below.

Microscopic features

Histological type of tumour

The vast majority of these lesions will be adenocarcinomas and squamous carcinomas, with a few adeno-squamous lesions and small cell carcinomas. While the type of carcinoma may have little influence on prognosis in the majority of lesions,6 in very early cancers (T1) it may be better to have an adenocarcinoma – they have less local recurrence and fewer new primary lesions.7 Irrespective of the prognostic implications, it provides useful validation of the pre-surgical diagnosis which may be important in adjuvant therapy decisions.

HER2 testing should be carried out on all new cases.25

Tumour differentiation

Opinion is divided on the prognostic significance of tumour differentiation. In some studies it was prognostically significant for squamous carcinomas,8 adenocarcinomas9 or both.6 However, in one large study1 it was not significant. Thus, as it is usually easy to assess and may be important prognostically, it is included in the minimum dataset.

Depth of invasion

Occasionally an oesophageal resection will be performed upon a patient who has had multiple biopsies showing high-grade dysplasia, usually in the context of Barrett’s oesophagus. These patients almost always have invasive adenocarcinoma in the resection specimen, but occasionally a resection will show only high-grade dysplasia.

The depth of invasion is assessed according to the TNM Classification of Malignant Tumours staging system and is one of the most consistent predictors of prognosis.1,6,9–12 It is often the only independent prognostic indicator on multivariate analysis.1,6,9 Some authors have attempted to go further and distinguish mucosal and submucosal invasion,9 although there is little support for this.

Serosal involvement

Many distal oesophageal carcinomas will involve the proximal stomach. At this site there is no circumferential margin, but there is a serosal surface. While there is no evidence to confirm or refute serosal involvement as an important prognostic indicator in oesophageal carcinoma, it is undoubtedly so in the stomach and for this reason is included in the minimum dataset.
Proximal and distal margins

The proximal (upper) and distal (lower) resection margins of the oesophagus require histological exclusion of involvement. There is good evidence that involved proximal margins increase the likelihood of recurrence,\(^8,9,13\) but less evidence for distal margins.\(^9\) The proximal margin of the oesophagus should always be sampled, no matter what the distance from the tumour because of the risk of discontinuous foci of carcinoma in the proximal oesophagus.\(^14\)

Circumferential margin

Examination of the circumferential resection margin (CRM) is rather more contentious. In some sites, such as the cervix in radical surgery, the value of detection of CRM involvement is unquestioned. In the rectum it is accepted for its crucial role in determining which patients go on to have local adjuvant treatment.\(^15\) However before Sagar et al.\(^16\) published their study of CRM involvement in the oesophagus, few studies even mentioned this as a possible parameter.\(^8\) CRM involvement was found to be a strong predictor of poor 2-year survival. CRM involvement probably provides a good indication of the degree of tumour spread and the extent of resection and provides useful information when comparing different surgical techniques. This is supported by the fact that, while gastric cardiac tumours have on the whole a worse prognosis than other gastric tumours, it is only in stage T2 tumours (i.e. penetration of muscle coat but not serosal involvement) that this effect is seen.\(^17\)

In the absence of negative evidence it is included in the minimum dataset and the presence of carcinoma less than 1mm from a circumferential margin is considered to be the criterion for margin involvement.

Vascular invasion

Vascular invasion is an effective prognostic indicator. Different studies have detected involvement in different ways, some using special stains and some specifying venous over lymphatic invasion. Many showed a significant effect on univariate analysis\(^1,8-10,18\) and in one large study\(^9\) it was as independently prognostic as depth of invasion on multivariate analysis. There is no separate data comparing intra- and extramural vascular invasion.

Perineural invasion

There is less evidence for perineural invasion as a prognostic indicator\(^9\) and the only significance here was lost on multivariate analysis.

Lymph node stage and numbers of involved nodes

All studies in which crude lymph node status is assessed show it to be a significant indicator of prognosis\(^1,6,7-11,18\) and in many of those papers it was the most significant prognostic indicator.

In patients who have received neo-adjuvant therapy the degree of tumour regression should be staged using the method of Mandard:\(^3\)

- Grade I – Complete regression
- Grade II – Isolated cell nests
- Grade III – More residual cancer cells but fibrosis still predominates
- Grade IV – Residual cancer outgrowing fibrosis
- Grade V – Absence of regressive changes.
However, when assessed, a large number of involved nodes is usually,\(^1,6,10\) although not always,\(^9\) a significant factor. It also provides information about the extent of the resection and so is included in this minimum dataset.

There is little information about the significance of the location of involved lymph nodes, or about features such as extracapsular invasion. In the absence of such evidence, these features are not included in the dataset.

The search for involved lymph nodes has been refined in some sites by the use of immunohistochemistry and serial sections to detect micrometastases. Only one study has identified micrometastases in the lymph nodes around the oesophagus\(^19\) using Ber-EP4. These authors found that immunohistochemical detection of malignant cells in lymph nodes worsened the prognosis of patients who were conventionally node negative. This observation needs, however, to be confirmed in further studies before its clinical relevance can clearly be established. Until then it is not recommended that immunohistochemistry is adopted in routine practice.

**Barrett’s metaplasia**

Some studies indicate a positive prognostic effect of the presence of Barrett’s metaplasia in the adjacent oesophagus.\(^20\) While this may identify less advanced tumours, many of these patients may have been screened for Barrett’s and documentation of its presence is useful for audit.

**Other markers**

Many other markers of prognosis have been investigated, including ploidy,\(^8,12,21\) angiogenesis,\(^22\) CD44\(^23\) and EGFR.\(^24\) Many show some prognostic significance, but without confirmatory evidence in larger studies the use of such special techniques is not justified in a minimum dataset.

**Minimum dataset for an initial biopsy diagnosis of oesophageal carcinoma**

An initial biopsy report should identify the type of carcinoma – squamous cell or adenocarcinoma. The presence of overlying squamous cell dysplasia, glandular dysplasia or Barrett’s metaplasia will also provide support for a primary oesophageal origin and so should also be included if present. The depth of invasion may also be useful information. Submucosal invasion (as opposed to intra-mucosal invasion only) is a prognostic indicator of nodal metastases.\(^9\) This would be of little use in a resection specimen where the nodes are available for dissection and thus the TNM classification of depth of invasion (which does not differentiate between mucosal and submucosal invasion) is used for resection specimens. However, it may be helpful for the clinicians to know if submucosal invasion is identifiable in a biopsy specimen and thus it should be included in biopsy reports.

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Further copies of this document can be obtained from the publications department of the Royal College of Pathologists, 2 Carlton House Terrace, London SW1Y 5AF.

Alternatively it can be downloaded from the College website ([www.rcpath.org](http://www.rcpath.org)).
### National Minimum Dataset

**Oesophageal Carcinoma Histopathology Report**

<table>
<thead>
<tr>
<th>Surname .........................</th>
<th>Forenames ..........................</th>
<th>Date of Birth ....../....../......</th>
<th>Sex ............</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital ........................</td>
<td>Hospital No ..........................</td>
<td>NHS No ..............................</td>
<td></td>
</tr>
<tr>
<td>Date of Receipt ....../....../......</td>
<td>Date of Reporting ....../....../......</td>
<td>Report No ..........................</td>
<td></td>
</tr>
<tr>
<td>Pathologist ....................</td>
<td>Surgeon ..............................</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Gross description

- **Maximum length of specimen:** ..........mm  
  - Pinned ☐  
  - Not pinned ☐
- **Length of oesophagus:** ..........mm  
- **Width of tumour:** ..........mm  
- **Length of stomach (maximum):** ..........mm
- **Length of tumour:** ..........mm
- **Tumour edge to nearest distal margin:** ..........mm
- **Tumour edge to nearest proximal margin:** ..........mm

**Macroscopic type of tumour**

- Polypoid ☐
- Other ☐

#### Histology

**Type of tumour:**

- ☐ Squamous
- ☐ Adenocarcinoma
- ☐ Other (specify) ..............................

**Circumferential margin:**

- Involvement (>1mm): Yes ☐  
  - (if no – distance of carcinoma to nearest circumferential margin ..........mm)

**Differentiation by predominant area:**

**Distal margin features**

- Well ☐  
  - Moderately ☐  
  - Poorly differentiated ☐  
  - Normal ☐  
  - Dysplasia ☐  
  - Carcinoma ☐

**Depth of invasion:**

- ☐ Tis Carcinoma in situ / high-grade dysplasia
- ☐ T1 invasion of lamina propria/submucosa
- ☐ T1a Invasion of lamina propria or muscularis mucosae
- ☐ T1b Invasion of submucosa
- ☐ T2 invasion of muscularis propria
- ☐ T3 invades adventitia
- ☐ T4 invasion of adjacent structures

- ☐ T4a pleura, pericardium, diaphragm or adjacent peritoneum
- ☐ T4b other adjacent structures, e.g. aorta, vertebral body, trachea
<table>
<thead>
<tr>
<th><strong>Other features</strong></th>
<th><strong>Lymph Nodes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serosal involvement: Yes ☐ No ☐</td>
<td>Number examined ....... Number positive .......</td>
</tr>
<tr>
<td>Vascular invasion Yes ☐ No ☐</td>
<td>□ N0 no nodes positive</td>
</tr>
<tr>
<td>Barrett’s metaplasia Yes ☐ No ☐</td>
<td>□ N1 1 to 2 regional lymph nodes positive</td>
</tr>
<tr>
<td>Adjacent to tumour</td>
<td>□ N2 3 to 6</td>
</tr>
<tr>
<td></td>
<td>□ N3 &gt;6</td>
</tr>
</tbody>
</table>

**Lymph Nodes**

- **Number examined ....... Number positive .......**
  - □ N0 no nodes positive
  - □ N1 1 to 2 regional lymph nodes positive
  - □ N2 3 to 6
  - □ N3 >6

**Distant metastases:**

- Coeliac axis node positive Yes ☐ No ☐ (M1a if lower thoracic carcinoma, otherwise M1b)
- Cervical node positive Yes ☐ No ☐ (M1a if upper thoracic carcinoma, otherwise M1b)
- Other distant metastasis (M1b) Yes ☐ No ☐

**Proximal margin:**

- Normal ☐ Barrett’s ☐ Dysplasia ☐ Carcinoma ☐

**Comments**

Pathological staging

- Complete resection at all margins Yes ☐ No ☐ pT....... pN....... pM..........

**Signature** ...................................................... **Date**...../....../..... **SNOMED Codes** T......./M..........
Gastric cancer

- Minimum datasets for reporting tumours are used in the system of standard setting.
- Data collection, audit and feedback are provided for those involved in caring for these patients.

London Cancer Alliance histopathology laboratories have Clinical Pathology Accreditation (CPA).

These guidelines describe the core data that should be provided in histopathology reports of specimens for carcinoma of the stomach.

1. Certain features of these carcinomas (e.g. tumour grade, stage and resection margin status in gastric carcinoma) have been shown to be related to clinical outcome 1–3.

Consequently these features may be important in:

- providing prognostic information to clinicians and patients
- providing accurate data for cancer registration
- providing feedback to the surgeon on the quality of the resection
- potentially selecting patients for future trials of adjuvant therapy
- auditing the cost-effectiveness of pre-operative staging procedures.

2. They allow the accurate and equitable comparison of surgical practice in different units and the comparison of patients in clinical trials.

The purpose of this document is to define the minimum set of data that should be provided by pathologists on resected carcinoma specimens and biopsies containing carcinoma.

Notes on recording data items

Gross description

While the need to record the compartment of the stomach in which the tumour is mainly located or appears to be arising is self-evident, it is worth underlining the current interest in the epidemiology of distal versus proximal gastric cancers. While the former are decreasing in incidence, there has been a steep increase in the frequency of cancers at the cardia particularly in white males below the age of 65 years.1 There is an overall poorer prognosis for proximal cancer for all TNM stages despite the fact that this group is on average younger. However, these differences are based primarily on poorer short-term survival for proximal cancer related to the increased risks of surgery.2

Histology

Type

Cancers which are not adenocarcinomas are uncommon. Neuroendocrine tumours should be distinguished from adenocarcinomas showing some degree of neuroendocrine differentiation, and from mixed carcinoid and adenocarcinoma (‘collision’ type). Adeno-squamous carcinoma is another uncommon variant, while pure squamous carcinoma is exceedingly rare. Other rare variants include hepatoid, parietal-cell, embryonal and choriocarcinomas.
Classification and grading

While there are several approaches to categorising and grading gastric cancers (WHO, Lauren, Goseki and Ming), only Ming’s division into ‘expansive’ and ‘infiltrative’ has proved to be reproducibly prognostic in multivariate analyses after stage has been taken into account. Expansive tumours are associated with longer survival than infiltrative forms. However, it should be borne in mind that even this apparently straightforward distinction between two growth patterns has only moderate inter-observer agreement. The nature of the invasive margin is also of importance in early gastric cancers (EGC). However, in EGC, in contrast to the claimed effect in advanced cases, expansive tumours have a worse prognosis than infiltrative lesions. Nevertheless, this has to be put in the context of the generally favourable outlook in EGC and the rarity of ‘aggressive’ sub-types.

With regard to tumour grade, a simple division of differentiation into POOR and OTHER (based on the predominant appearance) should suffice. This dichotomous separation is more in keeping with Japanese practice and ‘poorly differentiated’ will almost always embrace diffuse (as opposed to intestinal) and non-cohesive (as opposed to cohesive) tumours. Poorly differentiated carcinomas have usually spread more extensively than well or moderately differentiated tumours at the time of diagnosis, so that some surgeons use a biopsy diagnosis of ‘poorly differentiated’ or ‘diffuse type’ cancer to indicate more radical surgery. Even among potentially curative resections there may be a survival advantage for the better differentiated carcinomas. When tumour stage is taken into account, however, any such advantage generally disappears.

In patients who have received neo-adjuvant therapy the degree of tumour regression should be staged using the method of Mandard:

- Grade I – Complete regression
- Grade II – Isolated cell nests
- Grade III – More residual cancer cells but fibrosis still predominates
- Grade IV – Residual cancer outgrowing fibrosis
- Grade V – Absence of regressive changes.

Local invasion

The extent of direct spread through the stomach wall and beyond is the major determinant of prognosis. The levels of spread are not entirely logical but have been chosen to reflect the greatest changes in prognosis. Thus, tumour limited to the mucosa or mucosa and submucosa regardless of its lateral extent is T1 (early gastric cancer), but it is of value to distinguish between mucosal and submucosal invasion as the latter is associated with an increased risk of lymph node metastasis. Tumour extending into the muscularis propria or subserosa but not penetrating through the peritoneal surface is T2; tumour which penetrates through the peritoneal surface without invading contiguous structures is T3; and tumour which penetrates through the peritoneal aspect and involves adjacent structures is T4. ‘Adjacent structures’ include transverse colon, spleen, liver, pancreas, abdominal wall, adrenal gland, kidney, small intestine and retroperitoneum. A carcinoma which extends into the omenta or gastric ligaments without penetrating through the visceral peritoneum covering these structures is still classified as T2. If there is penetration of the peritoneal aspect of the ligaments or omenta then the tumour is classified as T3.

In the event of intramural tumour extension into the duodenum or oesophagus, the tumour is classified by the greatest depth of invasion in these sites and the stomach. In so far as the lower oesophagus lacks a
peritoneal covering, particular attention has to be paid to circumferential margin involvement. Involvement of the adventitia of the oesophagus is classified as T3.

**Lymph node spread: regional**

The regional lymph nodes and the peri-gastric nodes along the lesser and greater curvatures and the nodes along the left gastric, common hepatic, hepatoduodenal, splenic and coeliac arteries, when present, all need to be examined. The recently updated UICC TNM classification (1997) is used to assign tumours to N0=no regional node involvement, N1=involvement of 1–6 regional nodes, N2=involvement of 7–15 regional lymph nodes and N3=involvement of more than 15 regional lymph nodes. Thus, at least 15 nodes should be the ‘target’ but, as indicated above, the possible yield will depend upon the type of surgical resection performed.

**Lymph node spread: distant**

Involvement of more remote intra-abdominal lymph nodes such as retropancreatic, mesenteric and para-aortic groups, is considered to be distant metastasis (M1).

**Other sites**

Involvement of the liver or the presence of peritoneal seedlings is also M1.

**Initial biopsy diagnosis of gastric adenocarcinoma**

An initial biopsy should identify the type of adenocarcinoma (e.g. diffuse vs intestinal or expansive vs infiltrative) and the degree of differentiation. The depth of invasion may also be useful information. Comment on the presence of dysplasia, atrophy and intestinal metaplasia in the adjacent mucosa may also be useful. An assessment of *Helicobacter* status should be noted.

HER2 testing should be carried out on all new cases.9

**TNM Clinical Classification**10

**T: Primary tumour**

- **TX** Primary tumour cannot be assessed
- **T0** No evidence of primary tumour
- **Tis** Carcinoma in situ: intra-epithelial tumour without invasion of the lamina propria
- **T1** Lamina propria, submucosa
  - T1a – Lamina propria
  - T1b – Submucosa
- **T2** Muscularis propria
- **T3** Subserosa (was T2b)
- **T4a** Perforates serosa (was T3)
- **T4b** Adjacent structures
N: Regional lymph nodes

NX Regional lymph nodes cannot be assessed
N0 No regional lymph node metastasis
N1 1–2 nodes
N2 3–6 nodes (was N1)
N3a 7–15 nodes (was N2)
N3b 16 or more (was N3)

M: Distant metastasis

MX Distant metastasis cannot be assessed
M0 No distant metastasis
M1 Distant metastasis

Further guidance


Wu CW, Hseih NC, Lo SS, Tsay SH, Lui WY, P’eng FK (1996), Relation of number of positive lymph nodes to the prognosis of patients with primary gastric adenocarcinoma, *Gut* 38:525–527.
National Minimum Dataset

Gastric Cancer Histopathology Report

Surname .......................... Forenames .......................... Date of Birth ....../....../.... Sex.............
Hospital ............................ Hospital No .......................... NHS No ..............................
Date of Request ....../....../.... Date of Reporting ....../....../..... Report No ..............................
Pathologist ........................... Surgeon ........................... ...

Gross description

Type of specimen: Gastrectomy – Total □ Subtotal □ Partial □
Oesophago-gastrectomy □ Spleen included □ Pancreas included □
Length of specimen-lesser curve ...............mm
Length of specimen-greater curve ...............mm
Length of duodenum ...................mm
Length of oesophagus ...................mm

Site of tumour: Pylorus □ Antrum □ Body □ O-G Junction □
Lesser curve □ Greater curve □ Anterior wall □ Posterior wall □

Macroscopic type: Ulcer-like □ Diffusely infiltrating □ Fungating □ Polypoid □

Size of tumour: Length ................mm Width ................mm Thickness ..............mm

Distance of tumour edge to: Distal margin ................mm Proximal margin ................mm

Histology

Adenocarcinoma: Yes □ No □ Other □ (specify)

Differentiation: Poor □ Other □

Character of invasive margin: Expansive □ Infiltrative □

Local invasion into:
Lamina propria (intra-mucosal) (T1) □ Submucosa (T1) □
Muscularis Propria (T2a) □ Subserosa (T2b) □
Tumour penetrates peritoneum without invasion of adjacent structures (T3) □
Tumour invades adjacent structures (T4) □ Structure invaded...............

Lymph node spread: regional

Total number of regional lymph nodes examined .............

Lymph node spread: distant
Nodes submitted separately from:

Number of lymph nodes involved .......... Number submitted ............

Number involved ............... [M1]

(0 involved=N0; 1-6 involved=N1; 7–15 involved N2; >15 involved=N3)

Other sites:

Histologically confirmed liver metastasis: Yes ☐ No ☐

Peritoneal deposits: Yes ☐ No ☐

Margins:

Tumour involvement of: Proximal donut Yes ☐ No ☐ Distal donut Yes ☐ No ☐

Proximal margin: Main specimen Yes ☐ No ☐ Frozen section Yes ☐ No ☐

Distal margin: Main specimen Yes ☐ No ☐ Frozen section Yes ☐ No ☐

Other pathology

Chronic gastritis: Yes ☐ No ☐ Atrophy Yes ☐ No ☐

Intestinal metaplasia: Yes ☐ No ☐ H.pylori Yes ☐ No ☐

Other lesions: Yes ☐ No ☐ Lesion present .....................

Synchronous carcinoma Yes ☐ No ☐ If yes, please fill out a second form.

Comments

Pathological staging

Complete resection at all margins? Yes ☐ No ☐  pTNM: pT pN pM

Signature .......................................................... Date ....../....../..... SNOMED Codes T....../M............
Appendix 5: Quality of Life – Management of the Side Effects of Cancer Therapies

For many years, quality of life after treatment of upper gastrointestinal malignancy was not an important priority for oncologists or surgeons. With advances in treatment over the last two decades, far more people, many cured, are surviving for significantly longer.

Common physical symptoms impinging on quality of life after surgery, radiotherapy and chemotherapy for upper gastrointestinal cancers include difficulties with swallowing, regurgitation, maintaining weight, abdominal pain, nausea, vomiting, diarrhoea, steatorrhoea and wind.

Active management of these symptoms with appropriate referral to specialist gastroenterologists should be considered within the context of the survivorship programme.

Mouth care

All patients receiving chemotherapy should take home adequate supplies of Corsodyl (mint-flavoured) mouthwash (20ml BD–QDS), according to treatment regimen.

Elderly patients

There is currently no formal protocol for dose reduction in elderly patients or those who are considered to be particularly frail. There is, however, a clinical impression that elderly patients have a reduced bone marrow tolerance.

Miscellaneous information

Antibiotics and anti-emetics policies are detailed by an individual Trust’s chemotherapy protocols, together with other therapeutic policies such as pain control and H₂ antagonist cover. Hydration intravenously is particularly important in cisplatin-based chemotherapy and should also be used. Dose reductions for chemotherapy according to local policies

Peritoneal drainage

- An ultrasound to locate the point of maximum fluid is recommended in all patients.
- Puncture site needs to be away from scars, tumour masses, distended bowel, liver and bladder, or other organs; right or left lower quadrant is usually safe.
- In patients who have had multiple paracentesis, the ascites may become loculated.
- Using aseptic technique, the puncture site down to the peritoneum should be well infiltrated with 2% lignocaine.
- The catheter must be used according to the manufacturer’s instructions.
- It is known that prolonged drainage can lead to catheter infection and peritonitis. In most cases, free drainage of ascites should be allowed to occur; this has been shown to be safe for up to 5l of drainage. IV fluid replacement and clamping of the drain (to reduce flow) should not be used routinely. These measures may be considered if dehydrated, hypotensive, in the presence of renal impairment, or if >5l of fluid has been drained. BP and pulse should be monitored closely. In the

BP and pulse should be monitored closely. In the
event of cardiovascular compromise the drain should be clamped and the doctor informed. The drain should remain in no longer than 12 hours, renal function should be checked the following day.

- Fluid should be sent for MC&S and cytology if not done previously.
- After catheter removal, a colostomy bag may be placed over the puncture site for a few days if necessary.

In patients with recurrent ascites, the PleurX drainage system should be considered for palliation. When the PleurX system is used, written information should be provided to local nursing teams and the patient.

Indwelling venous catheters

To deliver infused 5FU regimens, an indwelling venous catheter is required. Occasionally patients with poor peripheral access also require dwelling devices:

- skin-tunnelled catheter
- PICC line (peripherally inserted central catheter).

Not all patients are suitable for PICC insertion, and patients require assessment of antecubital veins.

The choice of device depends on the patient’s preference and availability. Patients requiring to commence chemotherapy urgently should be admitted and commenced on peripheral therapy. Insertion of an indwelling catheter can then be arranged.

All patients require education in the safe care of their indwelling catheter; written information should be provided with contact telephone numbers in case of difficulty.

Line-associated thrombosis

Patients who present with arm or neck swelling on the side of the line must be assumed to have line-associated clot until proven otherwise. Patients should be investigated with Doppler ultrasound or contrast imaging to confirm the diagnosis. If significant swelling has occurred, then anti-coagulation and line removal can be considered before the diagnosis is confirmed. These patients should subsequently undergo imaging investigation.

Once a patient has developed a line-associated thrombosis, he/she should remain on anti-coagulation until a new line is inserted (this is most easily done with low molecular weight heparin (LMWH) which can be stopped on the day prior to line insertion) and then be maintained on warfarin throughout the duration of the new line. Substitution of infused 5FU with capecitabine should be considered, to avoid further line placement

Some patients will develop pain associated with their indwelling catheter with no evidence of thrombosis. This pain is typically described as an ache occurring over the posterior aspect of the scapula. Although Doppler studies should be performed in these cases to exclude the presence of clot, the majority will prove to be negative.

Simple analgesics should be prescribed but if they are ineffective then line removal may be necessary.

Wigs

Scalp cooling is used to prevent alopecia with regimens containing anthracyclines. If patients develop alopecia, they should be offered a wig. Scalp cooling is contraindicated if oxaliplatin is part of the regimen.
Appendix 6: Community Specialist Palliative Care Referral Form

<table>
<thead>
<tr>
<th>Specialist Palliative Care (SPC) Community and SPC Inpatient Unit Referral Form</th>
<th>(1/3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greenwich &amp; Bexley Community Hospice</strong></td>
<td><strong>Lewisham Macmillan Community</strong></td>
</tr>
<tr>
<td>Bostall Hill, Abbey Wood SE2 0GB</td>
<td>Lewisham High Street SE13 6JH</td>
</tr>
<tr>
<td>Home care:</td>
<td>Tel: 020 833 3017</td>
</tr>
<tr>
<td>Tel: 020 83205837 Fax: 020 83205839</td>
<td>Fax: 020 8333 5270</td>
</tr>
<tr>
<td>Admissions:</td>
<td></td>
</tr>
<tr>
<td>Tel: 020 8312244 Fax: 020 83124344.</td>
<td></td>
</tr>
<tr>
<td><strong>Guy's &amp; St Thomas' Community Team</strong></td>
<td><strong>Meadow House Hospice</strong></td>
</tr>
<tr>
<td>Guy's Hospital, Great Maze Pond</td>
<td>Southall UB1 3HW</td>
</tr>
<tr>
<td>SE3 9RT</td>
<td>Tel: 020 89675279</td>
</tr>
<tr>
<td>Tel: 020 71684754 Fax: 020 71684748</td>
<td>Fax: 020 89675756</td>
</tr>
<tr>
<td><strong>Harrington Hospice</strong></td>
<td><strong>Michael Sobell House</strong></td>
</tr>
<tr>
<td>St Peter's Way, Harrington UB3 6AB</td>
<td>Northwood, Middx HA6 2RN</td>
</tr>
<tr>
<td>Tel: 020 87590445 Fax: 020 87590600</td>
<td>Tel:01925 844581 Fax: 01925 844585</td>
</tr>
<tr>
<td><strong>Harrow Community Team</strong></td>
<td><strong>Pembroke Palliative Care Centre</strong></td>
</tr>
<tr>
<td>Kenton Road, Harrow</td>
<td>Exmoor Street, W10 6DZ</td>
</tr>
<tr>
<td>HA3 0YG</td>
<td>Tel: 020 8962 4410</td>
</tr>
<tr>
<td>Tel: 020 83829084 Fax: 020 83829085</td>
<td>Inpatient Fax: 020 89624442 Community Services Fax: 020 89624413</td>
</tr>
<tr>
<td><strong>Hillingdon Community Team</strong></td>
<td><strong>Princess Alice Hospice</strong></td>
</tr>
<tr>
<td>Field Heath Road, Uxbridge</td>
<td>West End Lane, Esher</td>
</tr>
<tr>
<td>UB8 3NN</td>
<td>Tel: 01895 279412 Fax: 01895 279452</td>
</tr>
<tr>
<td>Tel:01895 279412 Fax: 01895 279452</td>
<td>Tel: 01372 461804 Fax: 01372 470937</td>
</tr>
</tbody>
</table>

For further information and advice on these services, please visit the Help the Hospices service directory at: http://www.helpthehospices.org.uk/about-hospice-care/find-a-hospice/uk-hospice-and-palliative-care-services/ and enter the postcode provided above.

Every LCA hospital has a Specialist Palliative Care team; if your patient is a hospital inpatient, please contact the team, via the relevant hospital switchboard.

---

**FAX MESSAGE**

From: 
Fax No: 
To: 
Date: 
No. of pages (incl cover sheet): 
Additional Information

Confidentiality: The content of this fax and attached documents are confidential and intended for the use of the addressee designated above. If you are not the addressee, you are hereby notified that you may not disclose, reproduce or otherwise disseminate or make use of this information for yourself or any third party. If you have received this in error, please notify us on the telephone number given above.

PLEASE SEND COPIES OF RECENT CLINICAL CORRESPONDENCE WITH THIS FORM — including recent clinic letters, blood tests and most recent imaging

NB. INSUFFICIENT INFORMATION MAY DELAY PATIENT ASSESSMENT

PATIENT NAME: _______________________________ 
NHS No: _______________________________ 
LCA Palliative Care Group Revised April 2014
**APPENDIX 6: COMMUNITY SPECIALIST PALLIATIVE CARE REFERRAL FORM**

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### Referral Form for SPC Community and Inpatient Units (2/3)

**Essential Patient Details**

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname</td>
<td></td>
</tr>
<tr>
<td>Male/Female</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Patient consent to palliative care involvement?</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>First Name</td>
<td></td>
</tr>
<tr>
<td>DOB</td>
<td></td>
</tr>
<tr>
<td>Is GP aware of referral?</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Postcode</td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Tel</td>
<td></td>
</tr>
<tr>
<td>Mоб</td>
<td></td>
</tr>
<tr>
<td>NHS number</td>
<td></td>
</tr>
<tr>
<td>Hospital No.</td>
<td></td>
</tr>
</tbody>
</table>

**Primary diagnosis(ies)**

**Communication**

- Patient in English? Yes ☐ No ☐ (If 'no' proceed with remaining questions)
- First Language, if not English:
- Would interpreter be helpful to patient and Palliative Care staff? Yes ☐ No ☐

**Next of Kin/Patient Representatives**

<table>
<thead>
<tr>
<th>District Nurse</th>
<th>General Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>Address</td>
<td>Address</td>
</tr>
<tr>
<td>Telephone</td>
<td>Telephone</td>
</tr>
<tr>
<td>Email</td>
<td>Email</td>
</tr>
</tbody>
</table>

**Main Carer (if different from above)**

<table>
<thead>
<tr>
<th>Social Services</th>
<th>General Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>Address</td>
<td>Address</td>
</tr>
<tr>
<td>Telephone</td>
<td>Telephone</td>
</tr>
<tr>
<td>Email</td>
<td>Email</td>
</tr>
</tbody>
</table>

**Continuing care assessment completed?**

| Continuing care funding agreed? | Yes ☐ No ☐ |

**Reason for Referral**

- Pain/ symptom control: ☐
- Emotional/ psychological support: ☐
- Social/Financial: ☐
- Assessment for hospice admission: ☐
- Care support: ☐
- Other reason (please give details below): ☐

**Service requested**

- Home assessment and support: ☐
- Hospital assessment: ☐
- Day Care: ☐
- Outpatient service: ☐
- Admission [circle]: ☐
- Hospice / symptom control / terminal care: ☐
- Hospital at Home: ☐

**The patient is currently**

- At Home: ☐
- In Hospital [see over]: ☐
- Other e.g. Nursing Home: ☐
- Please specify: ☐

**Does patient live alone?**

- Yes ☐ No ☐

**MRSA Status**

- Positive ☐
- Negative ☐
- Not known ☐

**Any other communicable infection:**

**Special device in situ?**

- Yes ☐ No ☐

**Referrer's Name:** [please print] ☐

**Contact number:** ☐

**Hospital/Surgery:** ☐

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Referral Form for SPC Community and Inpatient Units

### In-Patient details
- **Patient Name:**
- **NHS No.:**
- **Ward:**
- **Direct Ward Ext.:**
- **Telephone:**
- **Date of discharge (if known):**
- **Consultant:**
- **Is Palliative Care team involved?**
  - Yes [ ]
  - No [ ]

### Brief History of diagnosis(es) and Key treatments
<table>
<thead>
<tr>
<th>Date</th>
<th>Progression of disease and investigations/treatment</th>
<th>Consultant and Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Current palliative care problems
1. [ ]
2. [ ]
3. [ ]
4. [ ]

### Patient Mobility:
- **Bedridden/Walking required?**
  - Yes [ ]
  - No [ ]

### Any other comments/information (including preferences expressed about care or other psychological or spiritual issues)

### Referrer’s expectation of current treatment (please circle): symptom control / life prolonging / curative
- **Prognosis:**
  - In your opinion, is the patient
    - Stable? Yes [ ] No [ ]
    - Unstable? Yes [ ] No [ ]
    - Deteriorating? Yes [ ] No [ ]
    - Dying? Yes [ ] No [ ]
  - Is death anticipated within:
    - Months [ ]
    - Weeks [ ]
    - Days [ ]

### On the GSF register?
- Yes [ ]
- No [ ]
- Unknown [ ]

### DNA CPR in place?
- Yes [ ]
- No [ ]

### Past Medical and Psychiatric History

### Current Medication

### Known Drug Sensitivities/Allergies:
- Yes [ ]
- No [ ]

### Details:

### Insight: Has patient been told diagnosis?
- Yes [ ]
- No [ ]

### Is the carer aware of patient’s diagnosis?
- Yes [ ]
- No [ ]

### Does patient discuss the illness freely?
- Yes [ ]
- No [ ]

**Please ensure patients are aware information will be held on computer according to the Data Protection Act.**

### Referrer’s signature:

### Names (please print):

### Job title:

### Contact number:

### Address:

### Date:

---

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Appendix 7: LCA Key Worker Policy

Definition
A key worker is a person who, with the patient’s consent and agreement, takes a key role in coordinating the patient’s care and promoting continuity, ensuring the patient knows who to access for information and advice in relation to their cancer diagnosis. In addition, the key worker will facilitate patients making informed decisions about their treatment.

The implementation of the key worker role is a requirement of the National Cancer Peer Review Programme and detailed in the Manual for Cancer Services, originally published by the National Cancer Action Team (NCAT), and related site-specific Improving Outcomes Guidance, issued by the National Institute for Health and Care Excellence (NICE).

Principles and responsibilities

Designation
1. The key worker is a named clinical member of the site-specific multidisciplinary team (MDT), and acts as the point of contact between the patient and MDT.
2. The key worker is a healthcare professional.
3. The key worker is assigned by the core Clinical Nurse Specialist (CNS) of an MDT, agreed by the MDT and recorded within the patient record and multidisciplinary meeting proforma.
4. The name of the key worker, designation and contact details will also be recorded in the patient handheld record (PHR), if used, and included in all correspondence and in the patient medical records. All entries in the medical notes will comply with the NHS Litigation Authority standards.

Access
1. All cancer patients will be made aware of their allocated key worker, but have the right to ask for an alternative if they prefer. This will usually happen at diagnosis.
2. The key worker will provide a contact number to all the patients for whom they act as the key worker.

Multi-professional communication
1. If a more appropriate person is identified as a key worker at a point in the patient’s pathway, this will be discussed and agreed by the patient and the new key worker, and recorded in the patient’s notes. This situation is most likely to arise with referral to the palliative care team. In such cases the palliative care CNS will check if a key worker has already been identified for the patient by the relevant tumour MDT. The palliative care CNS will then negotiate and document care responsibilities in the patient’s notes.
2. The key worker may change as patients pass through various stages of the care trajectory or when care is transferred to a different Trust. It is the responsibility of the key worker to hand over to the next one, to document this in the patient’s notes and to keep the patient informed.
3. The key worker will lead on patient communication issues and coordination of the pathway for patients referred to the team.

4. The key worker will ensure that the patient pathway is coordinated and that all relevant information is transferred to the appropriate professionals as the patient moves across care boundaries, e.g. on admission to and discharge from institutions, when care is transferred between teams.

5. The key worker has responsibility for ensuring holistic needs assessments (HNAs) are recorded/documentated in patient records.

**Patient communication and support**

1. Where possible, the key worker will be available to support the patient on diagnosis to signpost and provide them with information and contacts for the MDT, national information and support services, self-help groups and associated site-specific support.

2. If the key worker is not available at the time of diagnosis, the person who is providing support at the time will ensure that the patient is aware of the key worker role and provide the relevant contact details.

3. The key worker will be accessible to the patient as a constant point of contact, handing over to colleagues when unavailable and making sure that the patient has clear information about alternative contacts and cover arrangements.

4. The key worker will provide information, care and support throughout the patient journey regardless of the patient’s condition, liaising between health professionals to ensure continuity of care and a seamless service.

**Data/audit**

1. The key worker will contribute to the audit of the key worker role in their organisation.

**Annex A**

**NCAT peer review standard**

*There should be an operational policy whereby a single named key worker for the patient’s care at a given time is identified by the MDT members for each individual patient and the name and contact number of the current key worker is recorded in the patient’s case notes. The responsibility for ensuring that the key worker is identified should be that of the nurse MDT member(s).*

The above policy should have been implemented for patients who came under the MDT’s care after publication of these measures and who are under their care at the time of the peer review visit.

**Notes**

• According to the NICE supportive and palliative care guidance, a key worker is a person who, with the patient’s consent and agreement, takes a key role in coordinating the patient’s care and promoting continuity, e.g. ensuring that the patient knows who to access for information and advice. This is not intended to have the same connotation as the key worker in social work.

• It may be necessary to agree a single key worker across both a cancer site-specific MDT and the specialist palliative care MDT for certain patients.
Appendix 8: Treatment of Children

Children below the age of 16 years with a diagnosis of cancer or suspected cancer must be referred to the paediatric oncology team at the principal treatment centre (PTC) and must not be managed exclusively by adult site-specific teams.

- The joint PTC for children aged 1–16 years for South Thames is The Royal Marsden (Surrey site)/St George’s Hospital.
- The PTC for North Thames (including North West London) is Great Ormond Street Hospital/University College London Hospitals.
- All patients <1 year should be referred to Great Ormond Street Hospital.

For certain tumour types that are uncommon in children (e.g. skin, melanoma, head and neck, thyroid, gastrointestinal, hepatobiliary), the paediatric oncology team should liaise with the appropriate site-specific multidisciplinary team for advice about management and to agree surgical interventions, but overall responsibility for managing the patient remains with the paediatric oncology team.

Please see below for contact details for the children’s PTCs.

**South Thames PCT contacts**

<table>
<thead>
<tr>
<th>The Royal Marsden NHS Foundation Trust</th>
<th>Lead Clinician – Dr Julia Chisholm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="mailto:julia.chisholm@rmh.nhs.uk">julia.chisholm@rmh.nhs.uk</a></td>
</tr>
<tr>
<td></td>
<td>020 8661 3549</td>
</tr>
<tr>
<td></td>
<td>Paediatric oncology oncall registrar (new referrals)</td>
</tr>
<tr>
<td></td>
<td>020 8915 6248 (24h line)</td>
</tr>
</tbody>
</table>

**North Thames PTC contacts**

<table>
<thead>
<tr>
<th>Great Ormond Street Hospital</th>
<th>Lead Clinician – Darren Hargrave</th>
</tr>
</thead>
<tbody>
<tr>
<td>(patients aged &lt;13 years)</td>
<td><a href="mailto:darren.hargrave@nhs.net">darren.hargrave@nhs.net</a></td>
</tr>
<tr>
<td>University College London Hospitals</td>
<td>Lead Clinician – Dr Sara Stoneham</td>
</tr>
<tr>
<td>(patients aged ≥13 years)</td>
<td><a href="mailto:sara.stoneham@uclh.nhs.uk">sara.stoneham@uclh.nhs.uk</a></td>
</tr>
<tr>
<td></td>
<td>0203 447 9950</td>
</tr>
</tbody>
</table>
Appendix 9: Treatment of Teenagers and Young Adults

The Improving Outcomes in Children and Young People with Cancer (NICE, 2005) and the subsequent Manual for Cancer Services: Teenage and Young Adults Measures (Department of Health, 2013) recommend that patients aged 16–18 are managed at a principal treatment centre (PTC) for teenager and young adult (TYA) cancers and that those aged 19–24 are given the choice of being managed at a PTC or TYA designated hospital

- The PTC for TYA for South Thames is The Royal Marsden (Surrey site).
- The PTC for North Thames (including North West London) is University College London Hospitals.

All patients within this age range, regardless of place of care, should be referred to the TYA multidisciplinary team (MDT) at the relevant PTC. Referral to the MDT should be made using the TYA referral form (see below) which can be found on the London Cancer Alliance website: [www.londoncanceralliance.nhs.uk/news,-events-resources/news/2014/03/referring-teenage-and-young-adult-cancer-patients/](http://www.londoncanceralliance.nhs.uk/news,-events-resources/news/2014/03/referring-teenage-and-young-adult-cancer-patients/).

Discussion at the TYA MDT is in addition to the site-specific MDT (SSMDT); key functions of the TYA MDT are to agree the treatment plan of the SSMDT, ensure cancer registration and provide a psychosocial care plan. Members of the SSMDT or TYA service at the PTC or TYA designated hospitals are invited to attend the TYA MDT either remotely or in person.

**South Thames PTC contacts**

<table>
<thead>
<tr>
<th>The Royal Marsden NHS Foundation Trust</th>
<th>Lead Clinician – Dr Julia Chisholm <a href="mailto:julia.chisholm@rmh.nhs.uk">julia.chisholm@rmh.nhs.uk</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TCT Nurse Consultant for Adolescents and Young Adults – Louise Soanes <a href="mailto:lsoanes@nhs.net">lsoanes@nhs.net</a></td>
</tr>
</tbody>
</table>

**London Cancer Alliance TYA designated centres contacts allied to The Royal Marsden PTC**

<table>
<thead>
<tr>
<th>Joint Centre (Guy’s and St Thomas’ NHS Foundation Trust/ King’s College Hospital NHS Foundation Trust)</th>
<th>Guy’s and St Thomas’</th>
<th>Lead Clinician – Dr Robert Carr <a href="mailto:Robert.carr@gstt.nhs.uk">Robert.carr@gstt.nhs.uk</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lead Nurse – Gavin Maynard-Wyatt <a href="mailto:Gavin.maynard-wyatt@gstt.nhs.uk">Gavin.maynard-wyatt@gstt.nhs.uk</a></td>
</tr>
<tr>
<td>Joint Centre (Guy’s and St Thomas’ NHS Foundation Trust/ King’s College Hospital NHS Foundation Trust)</td>
<td>King’s College Hospital</td>
<td>Lead Clinician – Dr Donal McLornan <a href="mailto:donal.mclornan@nhs.net">donal.mclornan@nhs.net</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead Nurse – Gavin Maynard-Wyatt <a href="mailto:Gavin.maynard-wyatt@gstt.nhs.uk">Gavin.maynard-wyatt@gstt.nhs.uk</a></td>
</tr>
<tr>
<td>St George’s Healthcare NHS Trust</td>
<td>St George’s Hospital</td>
<td>Lead Clinician – Dr Jens Samol <a href="mailto:jens.samol@stgeorges.nhs.uk">jens.samol@stgeorges.nhs.uk</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead Nurse – Linda Shephard <a href="mailto:Linda.shephard@stgeorges.nhs.uk">Linda.shephard@stgeorges.nhs.uk</a></td>
</tr>
</tbody>
</table>
### North Thames PTC contacts

| University College London Hospitals | Lead Clinician – Dr Rachael Hough  
| Rachaeh.hough@uclh.nhs.uk | TCT Nurse Consultant for Teenagers and Young Adults – Wendy King  
| wendy.king@uclh.nhs.uk |

### London Cancer Alliance TYA designated centres contacts allied to University College London Hospitals PTC

| Chelsea and Westminster Hospital NHS Foundation Trust | Lead clinician – Dr Mark Bower (interim)  
| Mark.Bower@chelwest.nhs.uk | Lead Nurse – Kate Shaw (interim)  
| Kate.Shaw@chelwest.nhs.uk |
| Chelsea and Westminster (HIV and skin only) |

| Imperial College Healthcare NHS Trust | Lead Clinician – Dr Josu de la Fuente (deputy)  
| j.delafuente@imperial.ac.uk | Lead Nurse – Sinead Cope  
| sinead.cope@imperial.nhs.uk |
| Charing Cross |

| East and North Hertfordshire NHS Trust | Lead Clinician – Dr Gordon Rustin  
| grustin@nhs.net | Lead Nurse – Laura Miles  
| laura.miles@nhs.net |
| Mount Vernon Cancer Centre |
External referrals to The Royal Marsden TYA MDT; please complete section A and provide copies of site-specific MDT outcome sheet and original pathology report. We are unable to register patient on the TYAC database without this information.

### Section A: Patient details

<table>
<thead>
<tr>
<th>Name:</th>
<th>DOB/Age:</th>
<th>Sex:</th>
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<tbody>
<tr>
<td>Ethnic origin:</td>
<td>Country of birth:</td>
<td>□ UK □ Other, specify:</td>
</tr>
<tr>
<td>Referring hospital:</td>
<td>NHS no:</td>
<td>RMH no:</td>
</tr>
<tr>
<td>History &amp; diagnosis:</td>
<td>Staging:</td>
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<tr>
<td>Treatment/protocol:</td>
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<td></td>
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<tr>
<td>Referring consultant name and specialty:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name of key worker at referring hospital:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed in site specific MDT?:</td>
<td>Yes / No Details:</td>
<td></td>
</tr>
<tr>
<td>Reason for referral to RM TYA MDT:</td>
<td>Patient aware of diagnosis?:</td>
<td>Yes / No</td>
</tr>
<tr>
<td>□ New case □ Relapse □ Progression □ On treatment □ Off treatment</td>
<td>Patient aware of referral to TYA MDT?:</td>
<td>Yes / No</td>
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</table>

### Section B: Record of RMH TYA MDT discussion

<table>
<thead>
<tr>
<th>Date of TYA MDT:</th>
<th>Place of care:</th>
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<tr>
<td></td>
<td>TYA unit RMH □ adult services RMH □ other designated TYA unit □ other hospital (specify)</td>
</tr>
<tr>
<td>Named consultant at RMH (if relevant):</td>
<td>Named key worker at RMH (if relevant):</td>
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<tr>
<td>TYA Designated Hospital / Shared care hospital</td>
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<tr>
<td>Family / social circumstances:</td>
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<tr>
<td>Education / work:</td>
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<tr>
<td>Psychosocial issues:</td>
<td></td>
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<tr>
<td>Site-specific MDT treatment plan accepted by TYA MDT?:</td>
<td>Yes / No</td>
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<tr>
<td>Clinical trial:</td>
<td>Physician decision</td>
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<tr>
<td>□ yes, on trial</td>
<td>□ patient/parent decision</td>
</tr>
<tr>
<td>□ trial available but NOT on trial; specify why</td>
<td>□ not eligible</td>
</tr>
<tr>
<td>□ no relevant trial</td>
<td>□ Other (specify)</td>
</tr>
<tr>
<td>Fertility preservation discussed:</td>
<td>Yes / No / Information not supplied / Not relevant</td>
</tr>
<tr>
<td>Action points arising from TYA MDT:</td>
<td></td>
</tr>
<tr>
<td>TYA MDT discussion documented by:</td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgements

Our thanks to the following healthcare professionals, patients and carers who have provided input into the LCA Oesophageal and Gastric Cancer Clinical Guidelines, particularly Mr William Allum, Consultant Surgeon at The Royal Marsden NHS Foundation Trust, who was interim chair of the LCA OG Pathway Group when these guidelines were first being developed.

Pathway group members

- Dr Mike Mendall, Consultant Gastroenterologist, Croydon University Hospital
- Dr Nick Maisey, Consultant Medical Oncologist, Guy’s and St Thomas’ NHS Foundation Trust
- Orla Hynes, Dietitian, Guy's and St Thomas’ NHS Foundation Trust
- Dr Katherine Buxton, Consultant Palliative Care, Imperial College Healthcare NHS Trust
- Dr Danielle Power, Consultant Oncologist, Imperial College Healthcare NHS Trust
- Mr George Hanna, LCA OG Pathway Group Chair and Consultant Surgeon, Imperial College Healthcare NHS Trust
- Dr Rob Goldin, Professor of Liver and GI Pathology, Imperial College Healthcare NHS Trust
- Dr Amit Gera, Upper GI MDT Lead, Lewisham and Greenwich NHS Trust
- Dr Paul Ross, Medical Oncologist, King’s Health Partners
- Dr Guy Chung-Faye, Gastroenterologist, King’s Health Partners
- Mr Robert Mason, Consultant Surgeon, King’s Health Partners
- Dr Mark Harrison, Consultant Oncologist, Mount Vernon Cancer Centre
- Dr Adam Haycock, Consultant Gastroenterologist, The North West London Hospitals NHS Trust
- Dr John Hunt, Consultant Gastroenterologist, Princess Royal University Hospital, King’s College Hospital NHS Foundation Trust
- Jale Burch, Upper GI Clinical Nurse Specialist, Princess Royal University Hospital, King’s College Hospital NHS Foundation Trust
- Dr Raj Kerwat, Consultant Surgeon, Queen Elizabeth Hospital, Lewisham and Greenwich NHS Trust
- Dr Sarah Ibbett, GP, NHS Surrey Downs CCG
- Dr Angela Riddell, Consultant Radiologist, The Royal Marsden NHS Foundation Trust
- Dr Ian Chau, Medical Oncologist, The Royal Marsden NHS Foundation Trust
- Dr William Allum, Cancer Director/Lead and former interim Chair of the LCA OG Pathway Group, The Royal Marsden NHS Foundation Trust
- Dr Markus Gess, Consultant Gastroenterologist, Kingston Hospital NHS Foundation Trust
- Dr Hemant Sheth, Consultant Surgeon UGI, Ealing Hospital NHS Trust
- Dr Carol Collins, Consultant Gastroenterologist, West Middlesex University Hospital NHS Trust
- Dr Jeremy Thompson, Consultant Surgeon, Chelsea and Westminster Hospital NHS Foundation Trust
• Dr Greg Holdstock, Consultant Gastroenterologist, The Hillingdon Hospitals NHS Trust
• Dr Sameer Zar, Consultant Gastroenterologist, Epsom and St Helier University Hospital NHS Trust
• Dr Midhat Siddiqui, Lead Upper GI Cancer Clinician, Lewisham and Greenwich NHS Trust
• Dr Marcus Reddy, Upper GI MDT Lead, St George’s Healthcare NHS Trust
• Dr David Cunningham, Lead Clinician/Consultant Medical Oncologist, The Royal Marsden NHS Foundation Trust

Patient representatives

John Helm
Tim Painter

LCA project managers

Tim Bill, LCA OG Project Manager
Falguni Raja, LCA OG Project Manager
Nicola Glover, LCA Survivorship Project Manager
Amy Sherman, LCA Patient Experience Project Manager