OG Cancer Clinical Guidelines

OG NSSG on behalf of NECN

Title | NECN OG Cancer Clinical Guidelines
---|---
Authors | OG NSSG members
Circulation List | See page 2
Contact Details | Mrs C McNeill, Peer Review Co-ordinator claire.mcneill@nhs.net
Telephone | 01138 252976

Version History:

<table>
<thead>
<tr>
<th>Date</th>
<th>v2.7</th>
<th>May 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.05.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Document Control:

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Summary</th>
<th>Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2.7</td>
<td>27.05.16</td>
<td>Chair details update and amendments to page 9</td>
<td>May 2017</td>
</tr>
<tr>
<td>V2.6</td>
<td>19.02.16</td>
<td>Page 6 updated patient pathway</td>
<td>June 2016</td>
</tr>
<tr>
<td>V2.5</td>
<td>29.06.15</td>
<td>Page 22 re palliative care re HER 2</td>
<td>June 2016</td>
</tr>
<tr>
<td>V2.4</td>
<td>24.06.15</td>
<td>Removal of outdated information on pages 28&amp;29</td>
<td>June 2016</td>
</tr>
<tr>
<td>V2.3</td>
<td>22.06.15</td>
<td>Patient Pathway added and CYP CG Chair updated</td>
<td>May 2016</td>
</tr>
<tr>
<td>V2.2</td>
<td>20. 6. 15</td>
<td>Reviewed and updated by Chair</td>
<td>May 2016</td>
</tr>
</tbody>
</table>
Guidelines agreed by:

**Position:** OG NSSG Chair  
**Name:** Dr J Painter  
**Organisation:** City Hospitals Sunderland NHS FT NHS FT  
**Date Agreed:** 27.05.16

**Position:** Chemotherapy Network Group Chair for:  
14-1C-106f Chemotherapy Treatment Algorithms  
**Name:** Mr S Williamson  
**Organisation:** Northumbria Healthcare NHS FT  
**Date Agreed:** 27.05.16

**Position:** CYPCG Chair for:  
14-1C-107f Patient Pathways  
**Name:** Mr R McLachlan , Associate Director, NESCN  
**Organisation:** NHS England in Cumbria and the North East  
**Date Agreed:** 27.05.16

OG NSSG members agreed the Guidelines on:  
**Date Agreed:** circulated via email 27.05.16 for endorsement at June meeting  
**Review Date:** May 2017
**Contents**

Introduction..............................................................................................................................................4
GP Referral Guidelines...............................................................................................................................4
CCG Referral Pathways...............................................................................................................................4
Patient Pathway...........................................................................................................................................6
NSSG Guidelines for Teenage and Young Adults .....................................................................................7
Oesophagel & Stomach Cancer Background Information.......................................................................8
Agreed Network Model (Upper GI) ............................................................................................................8
Operational Policy for Named Key Worker for Cancer Patients.................................................................9
Referral in to the Specialist MDM ..............................................................................................................9
Upper GI Pathology Guidelines ................................................................................................................10
Upper GI Radiology Guidelines ................................................................................................................14
Pre-operative Fitness Assessment ............................................................................................................19
Curative Treatment Options......................................................................................................................19
Palliative Treatment Options......................................................................................................................22
Clinical Trials............................................................................................................................................24
Cancer Peer Review and Clinical Trials....................................................................................................25
Guidelines for Genetic Risk Assessment and Surveillance of Individuals with a Family History of Gastric or Oesophageal Cancer .....................................................................................26
NECN Chemotherapy Treatment Algorithm for Oesphagogastric Cancer .........................................27
References: ..................................................................................................................................................29
Appendix 1 – Teenage and Young Adult Pathway for initial Management .............................................30
Appendix 2 – Contact Details for TYA Advice ..........................................................................................31
Appendix 3 – NECN Approved List of Chemotherapy Regimens for OG..................................................32
Introduction

These guidelines have been developed by the Upper GI Cancer Network Site Specific Group of the North of England cancer Network.

The North of England NSSG for UGI OG cancers has adopted in their entirety the comprehensive national guidelines for UGI oesophago-gastric cancers; these are to be used in collaboration with NICE 2005 referral guidance. To support local implementation of these, each section included below provides the clinician with information on referral pathways and clinical team.

GP Referral Guidelines

This flow chart illustrates the referral mechanism for GPs to use for patients with dyspepsia. Note that iron deficiency anaemia is <110g/l (men) and <100g/l (post-menopausal women). The presence of low ferritin and/or low MCV without anaemia does not warrant endoscopy.
## CCG Referral Pathways

This table shows the referral centres and lead clinical contacts within the NECN.

<table>
<thead>
<tr>
<th>CCG Referral Pathways</th>
<th>Diagnostic Services</th>
<th>Designated MDT</th>
<th>Lead Clinician</th>
<th>Case Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Population*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newcastle West</td>
<td>144</td>
<td>Newcastle Upon Tyne Hospitals Foundation NHS Trust</td>
<td>Royal Victoria Infirmary</td>
<td>Prof S M Griffin 0191 2336161</td>
</tr>
<tr>
<td>Newcastle North &amp; East</td>
<td>146</td>
<td>Wansbeck General Hospital</td>
<td>Miss S Robinson 01670 529331</td>
<td>Specialist MDT</td>
</tr>
<tr>
<td>Northumberland</td>
<td>316</td>
<td>Northumbria Health Care NHS FT</td>
<td>North Tyneside General Hospital</td>
<td>Dr M Hayat 0191 2934151</td>
</tr>
<tr>
<td>North Tyneside</td>
<td>203</td>
<td>Gateshead Health NHS FT</td>
<td>Queen Elizabeth Hospital</td>
<td>Mr R Farrell 0191 4820000</td>
</tr>
<tr>
<td>Gateshead</td>
<td>201</td>
<td>City Hospitals Sunderland NHS Foundation Trust</td>
<td>Sunderland Royal Hospital</td>
<td>Dr J Painter 0191 5656256</td>
</tr>
<tr>
<td>Sunderland</td>
<td>277</td>
<td>County Durham and Darlington NHS FT</td>
<td>University Hospital of North Durham</td>
<td>Dr D Kejariwal 0191 3332333</td>
</tr>
<tr>
<td>Easington (60%)</td>
<td>56</td>
<td>Darlington Memorial Hospital</td>
<td>South - Dr A Dhar 01325 380100/ext 55170</td>
<td></td>
</tr>
<tr>
<td>South Tyneside</td>
<td>149</td>
<td>South Tyneside NHS FT</td>
<td>Royal Victoria Infirmary</td>
<td>Mr K Wynne 0191 4041000</td>
</tr>
<tr>
<td>North Durham</td>
<td>244</td>
<td>County Durham and Darlington NHS FT</td>
<td>University Hospital of North Durham</td>
<td>Dr D Kejariwal 0191 3332333</td>
</tr>
<tr>
<td>Durham Dales, Easington &amp; Sedgefield (excl Easington 60%)</td>
<td>218</td>
<td>Darlington Memorial Hospital</td>
<td>South - Dr A Dhar 01325 380100/ext 55170</td>
<td></td>
</tr>
<tr>
<td>Darlington</td>
<td>105</td>
<td>South Tees Hospitals Trust</td>
<td>James Cook University Hospital</td>
<td>Mr P Davis 01642 850850</td>
</tr>
<tr>
<td>South Tees</td>
<td>274</td>
<td>South Tees Hospitals Trust</td>
<td>University Hospital of North Tees</td>
<td>Dr J Vasani 01642 617617</td>
</tr>
<tr>
<td>Hambleton, Richmondshire &amp; Whitby</td>
<td>152</td>
<td>North Tees &amp; Hartlepool NHS FT</td>
<td>Cumberland Infirmary</td>
<td>Mr J Wayman 01228 814144</td>
</tr>
<tr>
<td>Hartlepool &amp; Stockton</td>
<td>287</td>
<td>North Cumbria University Hospital NHS Trust</td>
<td>Cumberland Infirmary</td>
<td>Mr J Wayman 01228 814144</td>
</tr>
<tr>
<td>Cumbria</td>
<td>328</td>
<td>North Cumbria University Hospital NHS Trust</td>
<td>Cumberland Infirmary</td>
<td>Mr J Wayman 01228 814144</td>
</tr>
</tbody>
</table>

**Source** - Mid-2014 Population Estimates for Clinical Commissioning Groups (CCGs) in England - ONS.gov.uk
Patient Pathway

Pathway for patients with suspected Upper GI (OG) Cancer

- Provide information and psychological support throughout the pathway
- Maximum Wait (Days)
- First Seen
  - Allocate UGI CNS
  - Holistic assessment
  - Consider rehabilitation needs
  - See TYA pathway
    - Inform patient’s GP
    - See OG rehabilitation care pathway liaise & involve healthcare professionals as required

- Inner Provider Transfer Network Best Practice
- Decision to treat

- First treatment

- Earliest Clinically Appropriate Date for commencement of subsequent treatment

- Referral received in secondary care
  - GP to ensure that patient stops PPT’s 2 weeks in advance
  - Rapid specialist assessment & one stop diagnostic service
    - Is UGI cancer or HGD confirmed or suspected?
      - No
      - Patient removed from cancer pathway
      - Yes
        - Local MDT discussion with Specialist MDT
          - Further diagnostic / staging investigations as appropriate

- Specialist MDT discuss treatment & rehabilitation plan plus consideration for clinical trials
- Staging investigations as indicated
- Agree proposed treatment plan with patient
  - HER2 testing for gastric & junctional tumours
  - Supportive & palliative care
  - Radical treatment
    - Surgery
    - Radiotherapy
    - Chemo Radiotherapy
    - Endoscopic treatment
    - Neo Adjuvant Surgery

- Appropriate after care
NSSG Guidelines for Teenage and Young Adults

A very small proportion of patients referred with suspected or proven oesophageal or gastric cancer fall into the ‘teenage and young adults’ age category – 19 to 24 years.

In general, the care for patients aged 19 to 24 years follows the format determined by the site specific pathway for both initial management and for follow up. However, it is recognised by both the CYPCG and the NSSGs across the network that further work is required to develop and refine pathways for this age group and partly in response a TYA working group has been established to take this work forward. The NSSG has received the document named ‘NECN Teenage and Young Adult Cancer Pathway Guidance Paper’ and agrees to follow the generic TYA Pathway with any site specific variations to be documented. See pathway in Appendix 1.

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

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

- Over the last 20 years, the incidence of oesophageal cancer and proximal gastric cancer has increased significantly so that an average GP practice would now expect to see 1 to 2 such cancers every year.

- The prognosis for oesophageal and gastric cancer remains poor (overall 5 year survival 17% and <10% respectively) unless cases are identified at an early stage. These cancers are uncommon under the age of 45 and presentation, particularly of early disease, is often with vague dyspeptic symptoms.

- The management of these cancers is multidisciplinary through upper GI surgeons, gastroenterologists, radiologists, oncologists, hospital and community based palliative care teams, dieticians and Primary Care teams.

- Surgical resection offers a chance of cure for a minority of patients whilst for the majority of patients, treatment is palliative. Palliative treatment options include: placement of an endoscopic stent, radiotherapy or chemotherapy.

- It is noted that endoscopy is more accurate at establishing a diagnosis when acid suppression has not been taken (early cancers can be missed).

Agreed Network Model (Upper GI)

Patient Pathway

Three levels of care are identified in the Upper GI Improving Guidance document, published in January 2001.

1. The diagnostic process

2. Local care: i.e. palliation and support, including certain local stenting procedures

3. Specialist care: any definitive anti-cancer treatment: palliative or curative including debulking or resection and palliative surgical bypass procedures.

Objectives of Specialist MDT

- To ensure that designated specialists work together effectively such that decisions regarding all aspects of diagnosis and treatment of individual patients and decisions regarding the team's operational policies are entirely multidisciplinary.

- To ensure that care is given according to recognised guidelines (including guidelines for onward referrals), with appropriate information being collected to inform clinical decision making and to support Clinical Governance / Audit.

- To ensure that mechanisms are in place to support entry of eligible patients into clinical trials, subject to patients giving fully informed consent.
Operational Policy for Named Key Worker for Cancer Patients

Each patient will have a named key worker who will be identified and recorded at the appropriate MDT meeting. The Upper GI tumour site has clearly identified patient pathways with the key worker role apparent throughout.

The Clinical Nurse Specialist will perform this role, however when appropriate, any MDT member can act in this capacity if contacted by a patient or carer. The Key Worker / Clinical Nurse Specialist will act as the co-ordinator of cases and be the single common contact for patients and carers. This will enable patients to have access to the MDT to discuss problems or concerns.

Referral in to the Specialist MDM

All referral and follow up practice adheres to national guidelines. All patients are either discussed by the Specialist Multi-Disciplinary Team or in their local Multi-Disciplinary Meeting attended by core members of the Specialist Multi-Disciplinary Team. All patients with suspected curable oesophago-gastric malignancies are referred in to the Specialist MDT. Patients for palliation are discussed with the representative core members of the local MDT in order to manage their disease in as local a setting as is possible, however, these cases should also discussed in the Specialist MDT if further Specialist input is required.

Follow Up

The specialist MDT will arrange and organise for any further investigations and follow-up of all patients referred by diagnostic / local care teams, until such time that a patient’s care is formally returned to the local MDT, for example for palliation. Care must be taken to ensure clarity of communication on this issue.
Upper GI Pathology Guidelines

These guidelines are supplementary to the following national guidance:

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

All upper GI cancer cases should be reviewed by an Upper GI Cancer multidisciplinary team which has a nominated Lead upper GI pathologist for the service. All pathologists reporting upper GI cancer specimens should participate in local audit (including an assessment of consistency of reporting, as appropriate to the site). If there is a significant discrepancy with the clinical/radiological findings the pathological material from diagnostic upper GI specimens should be reviewed, if possible by a second pathologist with an interest in upper GI cancer. All biopsy diagnoses of squamous or glandular dysplasia should be reviewed by at least one other pathologist with a GI interest before report authorisation. Their name will normally be included in the report as a reviewing pathologist. Where further treatment is being considered e.g. surgery, EMR etc the case should be reviewed at a Specialist MDT meeting and the diagnosis confirmed by at least two pathologists.

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

Specimen Examination

Each pathology service should establish a defined protocol for each type of diagnostic and therapeutic upper GI specimen type received by the laboratory, taking into account the above guidance. The protocols should be regularly reviewed and updated by the lead upper GI pathologist in consultation with other pathologists who participate in service delivery. Where appropriate, protocols should include a code for specimen orientation as agreed with the local upper GI surgical team. Upper GI tissue should only be removed and stored for the purposes of research if it is surplus to the requirements of the diagnostic process and if appropriate patient consent has been be obtained.

Minimum Dataset for Reporting

**Diagnostic specimens:**
For upper GI biopsies
- Tumour type
- Presence of associated epithelial dysplasia when identified
- Assessment of minimum depth of invasion ie. identification of submucosal invasion when this is present in the biopsy (level, not measurement)

**Therapeutic resections:**
**Relevant RCPath Dataset with local modifications**
- Specimen type
- Length of specimen
- Site of tumour
- Macroscopic appearance of tumour
- Dimensions of tumour
- Distance to margins
- Invasive tumour type
- Invasive tumour grade of differentiation
- Character of the invasive margin ie. expansile or infiltrative [Gastric]
• Depth of invasion
• Serosal involvement
• Vascular invasion
• Number regional lymph nodes examined
• Number of involved regional lymph nodes
• Number and site(s) of distant (non-regional) lymph nodes submitted and number involved (M1)
• Distance to circumferential margin and status of this margin (<1mm regarded as involved) [oesophagus]. Local dissection of lymph nodes will compromise the estimation of the circumferential margin but the distance to the remaining margin should be stated.
• Status of proximal and distal margins
• Other relevant pathology (Barrett’s or intestinal metaplasia, background dysplasia, chronic gastritis, H pylori status etc)
• TMN staging system, including R status

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

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

Grading and Staging Conventions

• **Dysplasia grading**
  Revised Vienna classification of gastrointestinal epithelial neoplasia
• **Tumour grading**
  WHO invasive carcinoma grade system
• **Tumour staging**
  TNM classification of malignant tumours (7th edition)

**Use of Ancillary Laboratory Techniques**

All laboratories providing a Pathology service in the network must have at least conditional laboratory (eg CPA) accreditation and ensure participation an appropriate external quality assurance programme which demonstrates satisfactory laboratory performance. Immunohistochemical procedures which may be of value include the following:

<table>
<thead>
<tr>
<th>Diagnostic Scenario</th>
<th>Immunohistochemical markers</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-abdominal malignancy, ? primary</td>
<td>CK7, CK20, CEA, CA125, CA19-9</td>
<td></td>
</tr>
<tr>
<td>Neuroendocrine differentiation</td>
<td>CD 56, Synaptophysin, Chromogranin, Ki 67</td>
<td>Treatment instituted on proliferative index of &gt;8%</td>
</tr>
<tr>
<td>GIST</td>
<td>CD117, CD34, Desmin, SMA, S100</td>
<td></td>
</tr>
</tbody>
</table>
**Audit**

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

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

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

**Referral for Review or Specialist Opinion**

1. **Referral for treatment**

All patients referred for treatment at a hospital within the North of England Cancer Network following diagnosis elsewhere must be reviewed and discussed at the treating hospital’s multidisciplinary team meeting (MDTM).

The complete diagnostic pathology report must be available at the MDTM, and when appropriate, the histological/cytological material should be reviewed prior to the meeting. This is particularly important if there is a significant discrepancy with the clinical/radiological findings. Pathological material should be requested at least five working days before and received at least three working days before the relevant MDTM to allow sufficient time for review. A formal report should be issued by the reviewing pathologist to the clinician or pathologist initiating the referral. The report of the reviewing pathologist should also be sent to the original pathologist and the clinician responsible for the patient’s care at the treating hospital, when they are not responsible for initiating the referral.

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

2. **Referral for specialist opinion**

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

In instances when the patient is referred for an opinion by a specialist multidisciplinary team the case should be referred to the Lead Pathologist of the appropriate MDT and dealt with according to specialist team/Cancer centre MDT guidelines.
There is no need for routine review of diagnoses of carcinoma made outside the Cancer Centre (specialist MDT) when the patient is referred to an oncologist/surgeon at the Cancer centre for further treatment. Individual cases may be reviewed at the request of the responsible clinician.

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

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

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

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

Introduction

Radiology techniques have a crucial role in the pre-treatment staging of diagnosed or suspected oesophageal and gastric cancers. Staging is frequently repeated in order to assess response to treatment, particularly before embarking on surgery after neo-adjuvant therapy has been employed. These techniques also have a place in the investigation of patients with mucosal high grade dysplasia as it is necessary in such cases to exclude the possibility of invasive disease.

Radiology is also used if recurrent disease is suspected on clinical grounds after previous ‘curative’ therapy, but at present there is no recommended role for the routine post-treatment radiological surveillance of asymptomatic patients for metastatic disease.

Pre-Treatment Disease Staging

Accurate staging of gastro-oesophageal tumours is essential to formulate appropriate treatment options and thus to allow well informed treatment recommendations to be made. Although a greater proportion of cases of oesophageal cancer are discovered at an early stage currently due to surveillance endoscopy programmes, accurate anatomical staging is still necessary. The increasing use of endoscopic mucosal resection requires accurate pre-procedure depth of tumour information and exclusion of distant spread. Precise stage-management should also limit inappropriate investigative pathways that do not influence management decisions and unnecessary exploratory surgery. Accurate tumour staging is also of paramount importance when comparing outcomes of non-surgical interventions as there is no histopathological “gold standard” stage of disease.

Techniques and Technique Selection

A wide range of radiological and non-radiological techniques are commonly employed in the pursuit of accurate disease staging. They have greatly varying levels of invasiveness and their ease of availability will vary between centres. Previous authors have attempted to devise investigative algorithms but it is likely that there is no unifying ideal pathway that is applicable in all cases. Experience is needed to prescribe the best sequence of tests for each patient so that resource is managed effectively without compromising accuracy.

The following radiological methods are used for the staging of gastro-oesophageal cancer and are discussed in an approximation of the order of frequency employed:

- Spiral Computed Tomography (CT)
- Endoscopic Ultrasound (EUS)
- Positron Emission Tomography (PET-CT)
- External ultrasound scanning – neck and abdominal
- Bone scanning
- Magnetic Resonance Imaging (MRI)
- Chest radiography
Computed Tomography

Once a patient has suspected oesophageal or gastric cancer, often following a diagnostic endoscopy, the primary staging investigation of choice is usually a computed tomography scan (CT). Spiral contrast-enhanced scans with thin collimation (3 or 5mm) are optimal. In the oesophagus, prone scanning may help to clarify mediastinal invasion but has not been routinely adopted. Tumours in the cardia and within the stomach are best demonstrated following gastric distension with 600-800ml water. Distal body and antral tumours are best evaluated in the prone position. Imaging for oesophageal and gastric cancers normally requires images to cover all areas from the thyroid to the lowermost reflection of pelvic peritoneum.

Endoscopic Ultrasound (EUS)

This staging method has a role in the following clinical scenarios:

1. Fit and potentially ‘curable’ oesophageal and gastric cancer patients for assessment of T stage (including local T4 invasion), mapping of lymphadenopathy and exclusion of low-volume ascites.

2. Fit and potentially operable oesophageal and gastric cancer patients with equivocal non-regional lymphadenopathy (M1a) on staging CT scan with a view to performing EUS fine needle aspiration of non-regional nodes. Note that occasionally nodal FNA is more conveniently carried out by an endobronchial ultrasound (EBUS) technique.

3. Identification of local invasion of organs e.g. pancreas/liver/aorta

4. The evaluation of patients with mucosal high grade dysplasia (HGD) where the lesion is invisible to CT to identify possible T1 or T2 cancer. EUS is used in the assessment of suitability of lesions for EMR, whether HGD or early cancers.

Endoscopic ultrasound is usually carried out of at the time of a repeat endoscopy, which is often required to confirm anatomical landmarks if the index endoscopy was not performed in the cancer treatment centre. If a primary tumour is not traversable with a sono-endoscope and no smaller calibre device is available, tumour dilatation is not recommended owing to the significant risk of perforation at the tumour site, which consequentially alters the disease prognosis.

PET-CT

The role of linked fluorodeoxyglucose positron emission tomography – computed tomography in the staging of oesophago-gastric cancers is being regularly updated. Its main purpose is the identification of occult metastatic disease in advanced cases that would otherwise be considered for curative therapy. Currently all fit patients with oesophageal or oesophago-gastric junctional cancers whose stage is T>2 and/or N>0 are staged using PET-CT. This test is not routinely used in the evaluation of gastric cancers; a significant proportion of these are not FDG-avid. PET-CT is, however, being sparingly used for the most advanced gastric cancers. Few investigations are ‘whole-body’ scans but are carried out from skull base to thigh. It is assumed that very few OG cancers would metastasise beyond these limits with no other more proximal secondary disease.

PET-CT is not specific and often identifies avid lesions which in themselves will require further investigation. This not only requires resource to confirm the diagnosis, but potentially lengthens the time a patient spends on the diagnostic pathway.
With current methodology the CT image component of PET-CT is not of sufficient diagnostic precision to replace the standard CT but this is a potential refinement for the future and, if achieved, will help to shorten the investigation pathway for many patients.

**External Ultrasound Scanning (USS)**

*Cervical*  Cervical lymphadenopathy is a common site for M1b disease to be identified in staging and also a common site for recurrence after attempted curative treatment of oesophageal cancers. It is readily available in most units and is usefully coupled with FNA cytology of suspicious lesions. It is selected for patients where CT scanning suggests lymphadenopathy in the upper mediastinum or cervical areas.

*Abdominal*  Abdominal ultrasound scanning for OG cancer staging is not routinely recommended but is occasionally used and it may be more appropriate than CT when there is good clinical evidence of liver metastases and treatment options are so limited that confirmation is all that is required prior to palliation. Ultrasound, with or without contrast techniques, may also be used in conjunction with or as an alternative to MRI to help characterise indeterminate liver lesions identified using CT.

**Bone Scanning**

As a large proportion of gastric cancers are not FDG-avid, PET-CT is not commonly used in the staging of these tumours. The alternative used to exclude skeletal metastases in such cases (with T>2 and/or N>0) is technetium bone scanning. There is no role for using this method in conjunction with PET-CT.

**MRI**

To date there is no evidence that magnetic resonance imaging has advantages over spiral CT in the staging assessment of either oesophageal or gastric carcinoma, but it is an area likely to be addressed in research proposed for the near future. MR imaging may have a role in patients with documented allergy to intravenous contrast agents or specifically to help characterise indeterminate liver lesions identified using CT.

**Chest Radiography**

A chest x-ray should only be requested in accordance with the Royal College of Radiologists guidelines and whilst the presence of a known malignancy suggests such a requirement, CT will be performed as part of the routine staging procedure and is far more sensitive for the detection of pulmonary metastases.
Achieving Optimal T-Stage

CT Scanning

Oesophagus  CT cannot delineate the component layers of the oesophageal wall and therefore is unable to differentiate between T1 and T2 lesions. Microscopic T3 tumours cannot be detected by CT and differentiating macroscopic T3 from focal tumour bulging or juxta-lesional lymphadenopathy can be impossible, particularly in a cachectic individual. Under-staging is more common than over staging. CT findings suggesting T4 involvement of aorta, tracheo-bronchial tree and crura are well documented but the signs are “soft” leading to poor sensitivity when compared with EUS. However, CT can predict mediastinal invasion in over 80% of patients.

Stomach  Adequate gastric distension is required for CT to identify the primary lesion and determine the extent of the abnormal wall thickness. Achieving this distension can be problematic in patients with advanced gastric carcinoma and previous gastric surgery. CT cannot differentiate between T1 and T2 lesions. T4a lesions can be suggested by identifying stranding into the adjacent peri-gastric fat but differentiating between transmural extension and peri-gastric lymphadenopathy can be difficult. Most contemporary studies report accuracy between 80-88% in identification of patients with advanced disease. T4b diagnosis on CT relies upon the presence of contact between tumour and contiguous organs, a focal loss of intervening fat plane, or clear CT evidence of direct organ invasion. These signs may again be difficult to evaluate in a cachectic patient.

Achieving Optimal N-Stage

CT Scanning

Size is the only criterion for assessment of lymph nodes and is a poor predictor of involvement, particularly in the chest, where large nodes may be reactive. As such, the accuracy of CT diagnosis of mediastinal node involvement ranges greatly. If nodes over 8mm in diameter are considered abnormal in the coeliac axis, a sensitivity of 78% and a specificity of 93% are achieved. The identification of more distant nodal groups is of particular importance as these nodal groups may not be amenable to evaluation with EUS and will often be outside the borders of even a radical resection.

The revised TNM classification has changed the classification of nodal involvement in gastric cancer. Previous classifications emphasised the importance of the distance of the involved nodes from the primary tumour. However, the current classification places emphasis on the number of involved nodes. Stage N1 refers to metastases in one or two regional nodes; N2, three to six nodes and N3, involvement of seven or more nodes. All published papers addressing the accuracy of EUS and CT in the staging of gastric cancer utilise the “old” TNM classification. The impact of these changes on the accuracy of current imaging modalities remains to be seen.

Endoscopic Ultrasound

Local lymphadenopathy is well characterised by EUS and certain features correlate accurately with malignant infiltration. Round nodes with well-defined margins, of greater than 1cm in diameter and with hypoechoic centres are likely to be involved. However, malignant nodes may not demonstrate all four features and large benign, reactive nodes are also recognised. EUS guided fine-needle node aspiration cytology may be helpful in these situations though the limitations of a negative result must be understood. Involved coeliac axis lymph nodes suggesting M1a disease from an oesophageal primary can be readily identified.
A recent NHS Health Technology Assessment Systematic Review of Endoscopic Ultrasound in gastro-oesophageal cancer confirms the high accuracy of EUS for T and N-staging of oesophageal and gastric cancer. Initial indications suggest that the performance for T-staging at the cardia is less good. Radial probes performed better than linear probes in staging gastric cancer although, in staging oesophageal cancer, there was no significant difference between the two. Staging for metastases using EUS alone is not satisfactory.

**Achieving Optimal M-Stage**

A review of 838 cases of newly diagnosed oesophageal cancers revealed that 18% have metastases at presentation. 45% of metastases were in abdominal lymph nodes, 35% hepatic, 20% pulmonary, 18% cervical lymph nodes, 9% bone, 5% adrenal, 2% peritoneal and 2% cerebral. In this series, all patients with bone and brain metastases were associated with metastatic disease in the abdomen and thorax. Hence, in the absence of clinical indication, evaluation of metastatic disease should be focused in the examination of the thorax and abdomen.

The revised TNM classification includes some important changes relating to metastatic disease in gastro-oesophageal carcinomas. Tumours in the lower oesophagus with involved coeliac axis nodes or tumours in the upper oesophagus with involved cervical nodes are classified as M1a. Tumours of any region with other more distant metastases are classified as M1b. There is therefore “overlap” in the process between N and M-Staging.

Spiral CT has significantly improved the detection of hepatic metastases by the introduction of techniques using thinner collimation, overlapping slices and dual phase imaging and will detect 75-80% of metastases. However, in patients with known malignancy, only 50% of lesions less than 1.5cm and 12% of lesions less than 1cm are metastatic deposits. Small volume ascites can also be readily demonstrated with EUS alerting the surgeon to the possibility of diffuse peritoneal spread.

**Other Investigations**

**Bronchoscopy**

CT and EUS combined are highly accurate in the assessment of tracheo-bronchial invasion from oesophageal tumours and bronchoscopy is not routinely required. It should however be available for use in patients where imaging has raised a suspicion of such invasion. See also the reference to the use of EBUS in the evaluation of nodal pathology above.

**Laparoscopy**

Laparoscopic assessment of the peritoneal cavity is the most sensitive investigation for the presence of peritoneal metastatic disease which is otherwise difficult to detect with conventional imaging. Laparoscopy is routinely used following CT and EUS in patients with T2 or greater gastric or oesophago-gastric junctional cancer prior to radical treatment. It is also considered in any patients where there is equivocal evidence of peritoneal spread on CT or EUS such as in the presence of small volume ascites.

Peritoneal lavage with saline can be employed and may identify free malignant cells. The correct management of otherwise operable patients with positive peritoneal cytology has not been established by currently referenced trials, but it is understood that cure cannot be achieved if operations are carried out in cytology-positive cases.
Pre-operative Fitness Assessment

The benefit derived from a particular therapy depends not only on the stage of the oesophageal or gastric disease but also on the fitness of the patient. The patient’s preoperative physiological status is a major factor in determining outcome after major surgery.

Comprehensive pre-operative evaluation and assessment of the patient is mandatory before assigning the patient to a particular therapeutic option. Where potential problems have been identified early communication with the anaesthetic/intensive care team is essential. Preoperative assessment and optimisation may necessitate a multidisciplinary approach.

Increasing availability of cardio-pulmonary exercise testing (CPET) has helped quantify physiological status for patients undergoing major surgery in a number of disciplines. Its role in oesophago gastric surgery is developing and there is current interest in identifying patients’ physiological response to neo-adjuvant chemotherapy using CPET methods.

It is recommended that anaesthesia for oesophageal surgery should only undertaken by anaesthetists familiar with the complexities of one lung ventilation.

Curative Treatment Options

Operable Patients: Specialist Teams – Figure 2

This table identifies the current catchment districts served by the network’s two specialist centres.

<table>
<thead>
<tr>
<th>CCG Populations</th>
<th>Designated Hospital</th>
<th>Lead Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newcastle West</td>
<td>Royal Victoria Infirmary</td>
<td>Prof S M Griffin</td>
</tr>
<tr>
<td>Newcastle North &amp; East</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Northumberland</td>
<td>316</td>
<td></td>
</tr>
<tr>
<td>North Tyneside</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>Gateshead</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>South Tyneside</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>Sunderland</td>
<td>277</td>
<td>Total Population</td>
</tr>
<tr>
<td>North Durham</td>
<td>244</td>
<td>2,007</td>
</tr>
<tr>
<td>Cumbria</td>
<td>328</td>
<td></td>
</tr>
<tr>
<td>Durham Dales, Easington &amp; Sedgefield</td>
<td>273</td>
<td>James Cook University Hospital</td>
</tr>
<tr>
<td>South Tees</td>
<td>274</td>
<td></td>
</tr>
<tr>
<td>Darlington</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>Hartlepool &amp; Stockton</td>
<td>287</td>
<td></td>
</tr>
<tr>
<td>Hambleton, Richmondshire &amp; Whitby</td>
<td>152</td>
<td></td>
</tr>
</tbody>
</table>

Total Population

2,007

1,092

Source - Mid-2014 Population Estimates for Clinical Commissioning Groups (CCGs) in England - ONS.gov.uk
Oesophageal & OG Junctional Cancer

Surgery remains the mainstay of curative treatment for patients with oesophageal cancer and should be considered for all patients with potentially curable disease. The standard surgical approach is a two phase (Ivor-Lewis) oesophagectomy with a two field lymphadenectomy.

For patients with T3 and or N+ disease, multimodality treatment should be considered and offered where patients fitness is satisfactory. The MRC OE02 trial reported a 6% 5 year overall survival benefit for patients who had 2 courses of preoperative chemotherapy with cisplatin and 5-fluorouracil compared to those patients who had surgery alone.¹ The CROSS study demonstrated a 13% overall survival advantage for preoperative chemoradiation (41.4Gy in 23 fractions concurrent with weekly carboplatin and paclitaxel).² Although the numbers were smaller the benefit was greater in patients with squamous cell cancers. Both of these trials recruited patients with squamous cell cancers of the oesophagus as well as adenocarcinomas. The ST02 trial randomised patients with operable adenocarcinomas of the oesophagus, OG junction and stomach to either surgery alone or perioperative chemotherapy with ECF (Epirubicin, Cisplatin and 5FU) and demonstrated a 13% 5 year survival advantage for dual modality therapy.³

In light of the REAL 2 trial results which demonstrated non inferiority of Capecitabine versus infusional 5FU,⁴ the standard regimen we offer patients is ECX (Epirubicin, Cisplatin and Capecitabine) in both the perioperative and adjuvant setting.

For patients not suitable for surgery, definitive chemoradiotherapy is an alternative, the most commonly used regimens in the UK currently being either Herskovic (50Gy in 25 fractions with 4 cycles cisplatin and 5-FU (2 concurrent; 2 adjuvant)⁵ or SCOPE (50Gy in 25 fractions with 4 cycles cisplatin and capecitabine (2 as neo-adjuvant; 2 concurrent).⁶ For patients in whom chemotherapy is not appropriate, definitive external beam radiotherapy alone is an option, but rarely curative, particularly in larger or more advanced tumours. A commonly used regimen is 55Gy in 20-22 fractions

Management options for patients with operable oesophageal cancer therefore include:

Squamous cell cancers:
- Surgery alone
- Preoperative chemoradiation (as per CROSS study) followed by surgery
- Preoperative chemotherapy (as per OEO2 protocol) followed by surgery
- Definitive chemoradiation (Herskovic or SCOPE)
- Definitive radiotherapy

Adenocarcinomas:
- Surgery alone
- Perioperative chemotherapy (as per ST02 trial) plus surgery
- Preoperative chemoradiation (as per CROSS study) followed by surgery
- Preoperative chemotherapy (as per OEO2 trial) followed by surgery
- Definitive chemoradiation (Herskovic or SCOPE)
- Definitive radiotherapy

All patients should be restaged after chemotherapy with a CT scan at least to ensure the disease remains resectable.

All patients should be considered for clinical trials and where there is a suitable trial open this should be discussed with them.

Gastric Cancer
Surgery is the only curative treatment in patients with gastric cancer and should be considered for all patients with potentially resectable disease. The standard surgery that is undertaken is either total or subtotal gastrectomy with radical lymphadenectomy.

For patients with T3 and/or N+ disease multimodality treatment should be considered and offered where patients’ fitness is satisfactory. The ST02 trial randomised patients with operable adenocarcinomas of the oesophagus, OG junction and stomach to either surgery alone or perioperative chemotherapy with ECF (Epirubicin, cisplatin and 5FU) and demonstrated a 13% 5 year survival advantage for dual modality therapy. Many trials have evaluated the role of adjuvant chemotherapy (largely fluoropyrimidine and platinum based regimens) and a meta-analysis has demonstrated a 6% overall survival benefit. The Intergroup Trial demonstrated a survival advantage for adjuvant chemoradiation (45Gy in 25 fractions with 5-FU 4 weeks before starting radiotherapy, during weeks 1 and 5 of radiotherapy, and again 4 and 8 weeks following completion of radiotherapy). However its applicability to the UK practice is less clear where surgical fields are more radical.

For reasons stated above, ECX has largely superseded the use of ECF in these patients.

Management options for patients with operable gastric cancer:
- Surgery alone
- Perioperative chemotherapy (as per ST02 Trial) and surgery
- Surgery and adjuvant chemotherapy
- Surgery and adjuvant chemoradiation (as per Intergroup study)

**Alternative Surgical Techniques**

Minimally invasive surgery is now increasingly employed in the field of cancer resections and there is evidence to suggest that in experienced hands, minimally invasive resections can be performed with equivalent oncological rigor to conventional open operations. Totally minimally invasive operations, or hybrid procedures (for example open gastric mobilisation and thoracoscopic oesophageal resection) have an increasing role, particularly as individual surgeons’ expertise develops. The outcomes of all procedures, open, hybrid or MI demand equal vigilance and audit.

Total gastrectomy is conventionally chosen for proximal gastric cancers but leads to a poor quality of life. The distal stomach-sparing Mirendino operation has been developed to improve quality of life. It is a less radical procedure due to the constraints of gastric preservation but for early cancers of the OG junction or proximal stomach, it can be employed.

**Endoscopic Treatments**

The increased use of endoscopic mucosal resection in the evaluation of dysplastic Barrett’s oesophagus has led to expertise in EMR being gained and it now has a role in the treatment of, as well as the investigation of, early cancer. Patients with T1 cancers, especially if solitary or not associated with an unstable field change, can be resected with curative intent by EMR. Meticulous histopathological assessment of resected specimens is essential. Patients with T1a disease that has clear deep and circumferential margins can be considered to have had adequate treatment. Those with positive lateral resection margins might be offered a second, overlapping EMR. Those with positive deep resection margins, or T1b disease are in a worse prognostic group and should then have definitive surgery reconsidered.
True cancer polyps in the stomach and oesophagus are rare but, if discovered, can be adequately managed by snare polypectomy but evaluation of the ‘stalk’ is of vital importance in determining the treatment’s completeness.

Patients must be warned that although these techniques are far less invasive than surgery, they demand close frequent endoscopic surveillance.

Radio Frequency Ablation is a relatively new technique with a role in the control of flat, dysplastic Barrett’s oesophagus and it has no role in the treatment of oesophageal or gastric cancer.

**Palliative Treatment Options**

**Palliative Chemotherapy**

75% of patients present with metastatic or locally advanced disease and the majority of patients with localised OG cancers eventually relapse with local recurrence or metastatic disease. In this situation management is palliative and aim is to control symptoms and prolong life. Chemotherapy is often used to palliate symptoms for patients with performance status 0-2 and it is the only treatment with a proven survival advantage.

Based on the results of the REAL 2 trial the standard chemotherapy for patients with HER 2 negative disease is EOX (Epirubicin, Oxaliplatin and Capecitabine) but other fluoropyrimidine/platinum combinations can be considered based on comorbidity/acceptable side effect profiles. The median survival for patients receiving EOX is 11 months.

For patients with adenocarcinomas that involve the OG junction or stomach, HER 2 testing should be performed and if overexpressed treatment with chemotherapy (fluoropyrimidine/platinum and the monoclonal antibody Trastuzumab) should be considered based on the results of the TOGA trial.

Second line chemotherapy is now a standard of care for OG adenocarcinoma in patients with preserved performance status. Both taxanes and irinotecan based schedules are accepted regimens. There is no standard second line therapy for patients with squamous cell cancers of the oesophagus.

Where open and appropriate, patients should be offered inclusion in clinical trials.

**Palliative Radiotherapy**

Dysphagia and chest pain are very common symptoms in patients with oesophageal cancer. Short courses of external beam radiotherapy (eg 20Gy in 4-5 fractions or 30Gy in 10 fractions +/- endoluminal brachytherapy boost) or brachytherapy (typically single fractions) can be used to palliate these symptoms. Radiotherapy is of benefit in approximately 70% of patients.

In gastric cancer short courses of radiotherapy (eg 8Gy single fraction, 20Gy in 4-5 fractions or 30Gy in 10 fractions) can be useful to palliate bleeding from tumours.
Palliative Endoscopic Treatments

Dysphagia is a common symptom for relapsed patients and those whose disease has never been considered for cure. Stenting is commonly used as a simple, one step procedure to alleviate dysphagia. It is usually carried out endoscopically but in some units is carried out by interventional radiological techniques. It is used for tumours below the level of cricopharyngeus as at that level or above, patients do not tolerate the device. It is a technique that can also be used to help seal aero-digestive fistulas either singly, or in combination with tracheal or bronchial stenting. Stent placement is not applicable in all cases and in patients with soft, polypoid tumours, stent migration is a significant risk.

Gastric outlet obstruction from distal gastric cancers leads to vomiting and distension. It can be managed by pyloric stenting although recent experience suggests this is a less durable intervention than oesophageal stenting for dysphagia. However, these techniques are frequently chosen as a last resort and survival following oesophageal stenting is a median of only 10 weeks.

Some endoscopic methods of tissue destruction coupled with haemostatic devices such as laser and argon photo-coagulation may be used to provide luminal clearance, extend patency of stents overgrown by tumour, or to control oozing blood loss from raw tumour surfaces.

Palliative Surgery

Surgery is a high risk undertaking and is seldom used in vulnerable patients with incurable disease. However, some conditions such as gastric outlet obstruction do not respond well to stent placement and a reasonable alternative can be surgical. Patients able to have the bulk of their tumours removed as a palliative resection usually fare better in the intermediate term than those having simple bypass procedures. Few patients undergo intentionally palliative surgery, but it is a useful way of controlling symptoms in a carefully selected minority of incurable patients.

Disease Recurrence

“Routine” tests for disease recurrence will not be conducted. If patients are suspected on clinical ground of having recurrent cancer, all appropriate investigations will be ordered and results discussed in the MDM. Proven recurrent disease will then be offered treatment according to MDT meeting advice following assessment of symptoms and fitness.
Clinical Trials

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

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

Some key concepts include:

- The development of initiatives to strengthen research into prevention of cancer.
- The CRS states that there is funding for screening trials and the Research Network will support the setting up and coordination of screening trials.
- The Research Network will work with stake holders and the Primary Care Research Networks to ensure that patients in the North East and Cumbria have equity of access to clinical trials.
- NCRN engages with Industry and NICE to maximise the impact of trials investigating new therapies and hence improve subsequent NHS Practice.
- Provision of high quality information is a prerequisite for patients to be able to participate in decision making about their care and this includes research trials. All staff need to be aware of research portfolios so they can ensure they provide patients with relevant information. Close involvement of the Patient and Carer Group will help raise awareness of the importance of clinical trials.
- Research must be relevant to the whole population of affected patients by encouraging trials inclusive of older people and ensuring that children and young adults are treated at centres where a complete portfolio of relevant trials is supported.
- NCRI will help fund research on data collected by the National Cancer Intelligence network (NCIN), facilitating a more informed analysis of cancer services.
- To ensure research is incorporated in World Class Commissioning for cancer.

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

The following requirements are recognised within the NSSG and the specialist and local MDTs.

• There is an agreed list of clinical trials and/or studies

• Recruitment into trials and well-designed studies is integrated into the core framework of all aspects of activity.

• There is an agreed NSSG representative responsible for recruitment into clinical trials. This role is currently undertaken by Dr Kate Sumpter, Consultant Medical Oncologist.

• There should be a designated list of core multidisciplinary team members appointed to specific roles in the team.

• There is a programme of remedial action from the MDT's recruitment results

An agreed list of clinical trials for the Network can be found on the following website: http://www.nescn.nhs.uk/cancer-network-groups/nssg-oesophagogastric-og-nssg/

To review the current National Cancer Research Network portfolio of OG trials access the following website: http://public.ukcrn.org.uk/search/
Guidelines for Genetic Risk Assessment and Surveillance of Individuals with a Family History of Gastric or Oesophageal Cancer

This component of the guidelines document is currently awaiting validation by the regional genetics service. It will incorporate advice on the following:

- Genetic risk assessment
- Referral mechanism to the Regional Genetics Service
- Risk assessment
- Genetic analysis
- Surveillance

Until this document is ratified, clinicians are encouraged to consider referral of patients to the genetics service if they exhibit any of the following:

- Diagnosis of cancer at an early age
- Multiple primary cancers in the same person, either metachronous or synchronous
- Multiple upper GI cancers within the same family
INTRODUCTION

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

PEER REVIEW DEFINITIONS

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

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

In NECN Treatment Algorithms are included in each NSSG’s Clinical Guidelines which can be found under the tumour specific page of the guidelines section of the website, e.g. for Lung Cancer http://www.necn.nhs.uk/group/lung-nssg/
SUPPORTING DOCUMENTS

As new regimens are approved by NICE / NECDAG protocols for use of the new treatment will be uploaded to the chemotherapy site specific pages. The NSSG will be asked to update their algorithm with each new treatment approval. The availability of the Cancer Drug Fund (CDF) has increased the number of treatments potentially available to patients. CDF funded drugs may not be included in the NSSG clinical guidelines due to the dynamic nature of CDF funding (i.e. treatments can be removed as well as added).

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

LIST OF APPROVED REGIMENS

The NECN website provides the most up to date list of approved regimens and should be regularly checked. Appendix 3 summarises the OG regimens on the website.
References:


2. Van Hagen P1, Hulshof MC, van Lanschot JJ et al 2013 Preoperative chemoradiotherapy for esophageal or junctional cancer. NEJM 366(22):2074-84


Appendix 1 – Teenage and Young Adult Pathway for initial Management

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

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

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

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

Review at TYA MDT

Communication & Liaison between MDTs

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

PTC (RVI or Freeman) – treatment and ongoing care (with options for shared care or supportive care)

Designated TYA hospital treatment with option of TYA MDT outreach support 19–24 yr

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

Assess response at site specific haematological/oncological tumour MDT
- Consider need for further consolidation treatment

Relapse or recurrent disease

Yes

- Long term follow up protocol
- Further Treatment

No

Palliative Care

Abbreviations:
- TYA (Teenage and Young Adults)
- TYA DH (Teenage and Young Adults Designated Hospital)
- PTC (Principal Treatment Centre) (Feasibility of Tyne hospitals)

TYA Cancer Model Pathway Map version 1.7
ELTH/JUST and acknowledgement to Versus Cancer Network
## Appendix 2 – Contact Details for TYA Advice

<table>
<thead>
<tr>
<th>Name of NHS Trust and designated hospital site</th>
<th>Name of MDT</th>
<th>TYA Lead Clinician</th>
<th>TYA Lead Nurse</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Treatment Centre</td>
<td>All MDTs:</td>
<td>Dr Emma Lethbridge</td>
<td>David Short</td>
<td>0191 2448858</td>
</tr>
<tr>
<td></td>
<td>Breast</td>
<td></td>
<td><a href="mailto:david.short@nuth.nhs.uk">david.short@nuth.nhs.uk</a></td>
<td>(Dect48858)</td>
</tr>
<tr>
<td></td>
<td>Colorectal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gynaecology (diagnostic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Head &amp; Neck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lung</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neurooncology (Brain/Spinal, Pituitary, Skull Base)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sarcoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist pancreatic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supra T-cell Lymphoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teenage and Young Adult MDT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testicular</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thyroid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Upper GI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Urology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gateshead Health NHS Foundation Trust - at Queen Elizabeth Hospital</td>
<td>Specialist Gynaecology</td>
<td>Ms Christine Ang</td>
<td><a href="mailto:rachel.mugnai@ghnt.nhs.uk">rachel.mugnai@ghnt.nhs.uk</a></td>
<td>0191 4456148</td>
</tr>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust - at Sunderland Royal Hospital</td>
<td>Haematology Specialist Urology (testicular only)</td>
<td>Dr Scott Marshall</td>
<td>Faye Laverick</td>
<td>0191 5656256</td>
</tr>
<tr>
<td>City Hospitals Sunderland NHS Foundation Trust - at Sunderland Royal Hospital</td>
<td>All MDTs:</td>
<td>Dr Padmaja Lokireddy</td>
<td>Kat Dawson</td>
<td>01642 617617 ext 24697</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
<td></td>
<td><a href="mailto:Katherine.Dawson@nth.nhs.uk">Katherine.Dawson@nth.nhs.uk</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local Urology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thyroid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colorectal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lung</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local Upper GI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Tees Hospital NHS Foundation Trust - at James Cook University Hospital</td>
<td>All MDTs:</td>
<td>Dr Dianne Plews</td>
<td>Jill Linton</td>
<td>01642 854381</td>
</tr>
<tr>
<td></td>
<td>Specialist Gynaecology</td>
<td></td>
<td><a href="mailto:jill.linton@stees.nhs.uk">jill.linton@stees.nhs.uk</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colorectal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Head &amp; Neck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lung</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neurooncology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thyroid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Upper GI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist Urology</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 3 – NECN Approved List of Chemotherapy Regimens for OG

<table>
<thead>
<tr>
<th>Doc No.</th>
<th>Upper GI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP-08-UGI001</td>
<td><strong>Protocol for EOX</strong> (Epirubicin, Oxaliplatin &amp; Capecitabine)</td>
</tr>
<tr>
<td>CRP-09-UGI002</td>
<td><strong>Protocol for ECX</strong> (Epirubicin, Cisplatin &amp; Capecitabine)</td>
</tr>
<tr>
<td>CRP-09-UGI003</td>
<td><strong>Protocol for ECF</strong> (Epirubicin, Cisplatin &amp; Fluorouracil)</td>
</tr>
<tr>
<td>CRP-09-UGI004</td>
<td><strong>Protocol for ECarboX</strong> (Epirubicin, Carboplatin &amp; Capecitabine)</td>
</tr>
<tr>
<td>CRP-09-UGI005</td>
<td><strong>Protocol for ECarboF</strong> (Epirubicin, Carboplatin &amp; Fluorouracil)</td>
</tr>
<tr>
<td>CRP-09-UGI006</td>
<td><strong>Protocol for Docetaxel Cisplatin</strong></td>
</tr>
<tr>
<td>CRP-09-UGI009</td>
<td><strong>Protocol for Streptozocin and Capecitabine (Neuroendocrine)</strong></td>
</tr>
<tr>
<td>CRP-10-UGI010</td>
<td><strong>Protocol for HCX</strong> (Trastuzumab, Capecitabine &amp; Cisplatin)</td>
</tr>
<tr>
<td></td>
<td><strong>Protocol for CROSS – TO BE CONFIRMED</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Protocol for Weekly Paclitaxel</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Protocol for FOLFIRI</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Protocol for Docetaxel</strong></td>
</tr>
</tbody>
</table>